Academic Catalog

Fall 201'

General Information

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NOTE: All official communication between the college and students will be through the RCTC student assigned e-mail account.

Alternative Format
Information contained in this catalog can be made available in alternative formats by calling the RCTC Disability Support Services at (507) 280-2968.

General Education Requirements at RCTC

General Education Requirements at RCTC

At Rochester Community and Technical College, General Education includes the ten Minnesota Transfer Curriculum Goals (MnTC) and adds three additional goals applicable only to AAS and Diploma awards. ***AA and AS degrees: General education courses for AA and AS must be chosen from courses listed as MnTC Goals 1-10 and must fulfill the appropriate goal distribution.***

Minnesota Transfer Curriculum (MnTC)

The Minnesota Transfer Curriculum is a series of courses (40 credits) that comprise a package of general education requirements that, as a package, will satisfy the general education requirements for the first two years of college at all Minnesota public colleges and universities. Transfer of credits from one institution to another has in the past often been a difficult one, with the receiving institution in full control of what is and what is not accepted from the original institution. The Minnesota Transfer Curriculum is a transfer agreement that eliminates transfer difficulties for RCTC students: the successfully completed MnTC will automatically transfer in its entirety.

Note that the Minnesota Transfer Curriculum includes 40 general education credits; in itself the MnTC is not a degree. The AAS, AS, AFA, and AA degrees require a total of 60 (or more) credits.

Keep in mind also that many courses not in the MnTC may still transfer. Students will need to have these courses evaluated by their next institution at the time of application to that institution. For such courses the receiving institution determines what is and what is not accepted from RCTC in transfer.

The MnTC commits public colleges and universities in Minnesota to a broad foundation that integrates a body of knowledge and skills with study of contemporary concerns that are essential in meeting the challenges of the twenty-first century. The Minnesota Transfer Curriculum emphasizes our common membership in the human community, personal responsibility for intellectual lifelong learning, and an awareness that we live in a diverse world. The curriculum encourages diverse ways of knowing—that is, factual content, theories and methods, and creative models in a broad spectrum of integration, application, and communication.

The ten areas of emphasis or goals in the MnTC are listed below:
- **Goal 1:** Written and Oral Communication
- **Goal 2:** Critical Thinking
- **Goal 3:** Natural Sciences
- **Goal 4:** Mathematics/Logical Reasoning
- **Goal 5:** History and the Social and Behavioral Sciences
- **Goal 6:** Humanities - the Arts, Literature and Philosophy
- **Goal 7:** Human Diversity
- **Goal 8:** Global Perspectives
- **Goal 9:** Ethical and Civic Responsibility
- **Goal 10:** People and the Environment

When you examine a course and its description, these goals will help you determine which of the ten goals is met by that course. If you do not see one of the goals, the course is not part of the Minnesota Transfer Curriculum. The goals are shown in **bold** in the following example:

EXAMPLE

BIOL 1100 Environmental Biology
This is a one-semester course that introduces students to applied aspects of environmental science. It provides students with a broad overview of the concepts of ecology, systems and interrelationships among organisms and their physical environment, and current issues in environmental science. Students will examine humans' role in the natural world and the impact of the growth of the human population and the increase in humans' technological ability to make changes in the world. Students will be encouraged to explore societal, political, economic and personal value systems with regard to environmental issues. (Prerequisites: College level reading and writing). (3 C/2 lect, 2 lab). **MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.**

THE CONTENT BELOW PROVIDES DETAILED LISTINGS OF RCTC COURSES MEETING THE SPECIFIC REQUIREMENTS OF EACH GOAL AREA WITHIN THE MINNESOTA TRANSFER CURRICULUM (GOAL AREAS 1 THROUGH 10) AND THE RCTC-SPECIFIC ALLIED STUDIES OPTIONS (GOAL AREAS 11, 12, AND 13).

GOAL 1 : WRITTEN AND ORAL COMMUNICATION

Goal: To develop writers and speakers who use the English language effectively and who read, write, speak and listen critically. As a base, all students should complete introductory communication requirements early in their collegiate studies. Writing competency is an ongoing process to be reinforced through writing-intensive courses and writing across the curriculum. Speaking and listening skills need reinforcement through multiple opportunities for interpersonal communication, public speaking, and discussion.

Student competencies for Goal 1: Students will be able to:
- Understand/demonstrate the writing and speaking processes through invention, organization, drafting, revision, editing and presentation.
- Participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.
- Locate, evaluate, and synthesize in a responsible manner material from diverse sources and points of view.
- Select appropriate communication choices for specific audiences.
- Construct logical and coherent arguments.
- Use authority, point-of-view, and individual voice and style in their writing and speaking.
- Employ syntax and usage appropriate to academic disciplines and the professional world.

RCTC courses that meet guidelines for Goal 1: Written and Oral Communication

ENGL 1109	Introduction to Technical Communication
ENGL 1117	Reading and Writing Critically I
ENGL 1118	Reading and Writing Critically II
ENGL 2230	Minnesota Writers
COMM 1114	Fundamentals of Speech
COMM 1130	Interpersonal Communication
COMM 2100	Intercultural Communication
COMM 2130	Small Group Communication
COMM 2214	Strategies of Human Communication
COMM 2220	Gender and Communication

GOAL 2: CRITICAL THINKING

Goal: To develop thinkers who are able to unify factual, creative, rational, and value-sensitive modes of thought. Critical thinking will be taught and used throughout the general education curriculum in order to develop student's awareness of their own thinking and problem-solving procedures. To integrate new skills into their customary ways of thinking, students must be actively engaged in practicing thinking skills and applying them to open-ended problems.

Student competencies for Goal 2: Students will be able to:
- Gather factual information and apply it to a given problem in a manner that is relevant, clear, comprehensive, and conscious of possible bias in the information selected.
- Imagine and seek out a variety of possible goals, assumptions, interpretations, or perspectives, which can give alternative meanings or solutions to given situations or problems.
- Analyze the logical connections among the facts, goals, and implicit assumptions relevant to a problem or claim; generate and evaluate implications that follow from them.
- Recognize and articulate the value assumptions, which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.

RCTC courses approved for another MnTC Goal also meet Goal 2 Critical Thinking.

GOAL 3: NATURAL SCIENCES

Goal: To improve student's understanding of natural science principles and of the methods of scientific inquiry, i.e., the ways in which scientists investigate natural science phenomena. As a basis for lifelong learning, students need to know the vocabulary of science and to realize that while a set of principles has been developed through the work of previous scientists, ongoing scientific inquiry and new knowledge will bring changes in some of the ways scientists view the world.   By studying the problems that engage today's scientists, students learn to appreciate the importance of science in their lives and to understand the value of a scientific perspective. Students should be encouraged to study both the biological and physical sciences.

Student competencies for Goal 3: Students will be able to:
- Demonstrate understanding of scientific theories.
- Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, student's laboratory experience in the collection of data, it's statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
- Communicate their experimental findings, analyses, and interpretations both orally and in writing.
- Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

RCTC courses that meet guidelines for Goal 3: Natural Sciences

BIOL 1100	Environmental Biology
BIOL 1101	Elements of Biology
BIOL 1102	Plant Biology
BIOL 1107	Fundamentals of Anatomy and Physiology
BIOL 1110	Human Biology
BIOL 1127	Principles of Anatomy and Physiology I

GOAL 3 courses continued

BIOL 1128	Principles of Anatomy and Physiology II
BIOL 1217	Anatomy and Physiology I
BIOL 1218	Anatomy and Physiology II
BIOL 1220	Concepts of Biology
BIOL 2000	Ecology
BIOL 2021	General Microbiology
BIOL 2300	Genetics
CHEM 1100	Chemistry and Our World Today
CHEM 1101	Elements of Chemistry
CHEM 1117	General, Organic and Biological Chemistry I
CHEM 1127	Chemical Principles I
ESCI 1004	Earthquakes and Volcanoes
ESCI 1101	Earth Systems Science
ESCI 1114	Physical Geology
ESCI 1124	Solar System Astronomy
ESCI 1134	Stellar Astronomy
ESCI 1144	Environmental Geology
ESCI 1154	Introduction to Meteorology
PHYS 1101	Elements of Physics
PHYS 1103	Principles of Physics
PHYS 1117	Introductory Physics I
PHYS 1118	Introductory Physics II
PHYS 1127	Classical Physics I (Mechanics, Fluids & Waves)
PHYS 1134	Stellar Astronomy
SCIE 1100	Integrated Biology and Chemistry
SCIE 1200	Integrated Earth Science and Physics

GOAL 4: MATHEMATICS/LOGICAL REASONING

Goal: To increase student's knowledge about mathematical and logical modes of thinking. This will enable students to appreciate the breadth of applications of mathematics, evaluate arguments, and detect fallacious reasoning. Students will learn to apply mathematics, logic and/or statistics to help them make decisions in their lives and careers. Minnesota's public higher education systems have agreed that developmental mathematics includes the first three years of a high school mathematics sequence through intermediate algebra.

Student competencies for Goal 4: Students will be able to:
- Illustrate historical and contemporary applications of mathematics/logical systems.
- Clearly express mathematical/logical ideas in writing.
- Explain what constitutes a valid mathematical/logical argument (proof).
- Apply higher-order problem solving and/or modeling strategies.

RCTC courses that meet guidelines for Goal 4: Mathematics/Logical Reasoning

MATH 1050	Foundations of Mathematics: Algebra Emphasis
MATH 1060	Foundations of Mathematics: Geometry Emphasis
MATH 1111	Contemporary Concepts in Mathematics
MATH 1113	Finite Math with College Algebra
MATH 1115	College Algebra
MATH 1117	Precalculus
MATH 1119	Applied Calculus
MATH 1127	Calculus I

GOAL 4 courses continued
MATH 2208   Fundamentals of Statistics
MATH 1930   Linear Algebra: Honors
PHIL 1145   Logic

GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES

Goal: To increase student's knowledge of how historians and social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

Student competencies for Goal 5: Students will be able to:
- Employ the methods and data that historians and social and behavioral scientists use to investigate the human condition.
- Examine social institutions and processes across a range of historical periods and cultures.
- Use and critique alternative explanatory systems or theories.
- Develop and communicate alternative explanations or solutions for contemporary social issues.

RCTC courses that meet guidelines for Goal 5: History and the Social and Behavioral Science
ANTH 1611   Physical Anthropology and Archeology
ANTH 1612   Cultural Anthropology
ECON 1101   Introduction to Economics
ECON 2214   Principles of Economics: Micro
ECON 2215   Principles of Economics: Macro
GEOG 1614   Human Geography
GEOG 1615   Economic Geography
HIST 1611   The Ancient World
HIST 1612   The Medieval World
HIST 1613   Foundations of Western Civilization: From Ancient Greece to 1715
HIST 1614   Europe in the Modern Age
HIST 1615   War and Peace in the 20th Century
HIST 1617   World History to 1500
HIST 1618   World History Since 1500
HIST 1622   History of Minnesota
HIST 1624   U.S. History to 1865
HIST 1625   United States History 1865-Present
HIST 1628   History of the Americas
HIST 1631   Modern Asian Civilizations
HIST 1640   Women in History
HIST 1650   History of Religion
HIST 1789   History of the American Presidency
HIST 2070   History of the Rock and Roll Era
HIST 2619   Issues in Modern World History
MCOM 1110   Introduction to Mass Communication
MCOM 2130   Mass Communication Theory
POLS 1615   Introduction to American Government
POLS 1619   International Relations
POLS 1620   Constitutional Law
POLS 1630   Introduction to Political Science
PSYC 1600   Positive Life Skills

GOAL 5 courses continued

PSYC 1611	Psychology of Adjustment
PSYC 1650	Evolution and Human Behavior
PSYC 2611	Social Psychology
PSYC 2618	General Psychology
PSYC 2620	Introduction to Cultural Psychology
PSYC 2622	Abnormal Psychology
PSYC 2626	Human Growth and Development
SOC 1612	Sex and Gender in Society
SOC 1614	Introduction to Sociology
SOC 1616	Social Problems
SOC 1618	Environmental Sociology
SOC 2612	Marriage and the Family Across the Life Span
SOC 2618	Social Interaction
SOC 2625	Minority Group Relations

GOAL 6: THE HUMANITIES—the ARTS, LITERATURE, AND PHILOSOPHY

Goal: To expand student's knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and values expressed in works of human imagination and thought. Through study in disciplines such as literature, philosophy, and the fine arts, students will engage in critical analysis, form aesthetic judgments, and develop an appreciation of the arts and humanities as fundamental to the health and survival of any society. Students should have experience in both the arts and humanities.

Student competencies for Goal 6: Students should be able to:
- Demonstrate awareness of the scope and variety of works in the arts and humanities.
- Understand those works as expressions of individual and human values within a historical and social context.
- Respond critically to works in the arts and humanities.
- Engage in the creative process or interpretive performance.
- Articulate an informed personal reaction to works in the arts and humanities.

RCTC courses that meet guidelines for Goal 6: The Humanities—the Arts, Literature, and Philosophy

ART 1110	Art Appreciation
ART 1111	Art History Survey I
ART 1112	Art History Survey II
ART 1120	Computer as Creative Media
ART 1121	2D Design
ART 1123	3D Design
ART 1124	Graphic Design I
ART 1130	Digital Art I
ART 1134	Drawing I
ART 1140	Printmaking
ART 1144	Painting I
ART 1164	Ceramics I
ART 1175	Art of the Islamic World
ART 1184	Introduction to Digital Photography
ART 1212	Figure Drawing
ART 2284	Photographic Darkroom Fundamentals
BIOL 2000	Ecology

GOAL 6 courses continued

CHIN 1001	Introduction to Chinese Culture
COMM 1125	Oral Interpretation
COMM 2130	Small Group Communication
DANC 1101	Ballet I
DANC 1102	Modern I
DANC 1103	Jazz I
DANC 1125	Dance Appreciation
ENGL 1121	Mythology and Ancient Legend
ENGL 1125	Women's Perspectives
ENGL 1150	Introduction to Creative Writing
ENGL 2230	Minnesota Writers
ENGL 2251	Fiction Writing
ENGL 2252	Writing Poetry
ENGL 2255	Shakespeare: Screen, Stage and Page
ENGL 2260	Literature: Topical Studies
ENGL 2273	Early American Literature
ENGL 2274	Modern American Literature
ENGL 2275	Asian-American Literature
ENGL 2276	Best Sellers
ENGL 2277	Women and Literature
ENGL 2284	Literature and the Environment
ENGL 2297	Survey of Children's Literature
ENGL 2298	Adolescent Literature
ENGL 2978	The Bible as Literature: Honors
FREN 1001	French Culture in a Global Context
GERM 1001	Life/Culture in German Speaking Countries
HUM 1001	French Culture in a Global Context
HUM 1111	Ancient Greek and Roman Culture and the Middle Ages: 900 B.C. to 1400 A.D.
HUM 1112	The Renaissance Through the Enlightenment: 1400 A.D. to 1770 A.D.
HUM 1113	The Romantic Age Through the Modern Age: 1770 A.D. to 2000 A.D.
HUM 1131	The Art of Being Human
HUM 1190	Native American Studies
HUM 1841	Studies in Leadership
HUM 1141	Brave New Worlds: The Humanities and Contemporary Culture (1965-Present)
HUM 2255	Shakespeare: Screen, Stage and Page
MCOM 1106	American Cinema
MUSC 1001	Music Fundamentals
MUSC 1002	Music, Video, Lights
MUSC 1101	Music Appreciation
MUSC 1201	History of Music to 1600
MUSC 1221	Popular Music in the United States
MUSC 1231	Introduction to World Music
MUSC 1301	Concert Choir
MUSC 1302	Concert Band
MUSC 1321	AIRES
MUSC 1322	Jazz Band
MUSC 1331	Vocal Ensemble
MUSC 1332	Instrumental Ensemble
MUSC 1340	World Drum Ensemble
MUSC 1350	Marching Percussion Ensemble
MUSC 1401	Beginning Class Piano

GOAL 6 courses continued

MUSC 1421   Beginning Class Voice
MUSC 1422   Intermediate Class Voice
MUSC 1431   Beginning Class Guitar
MUSC 1450   Applied Music Vocal
MUSC 1501   Musicianship I
MUSC 1601   Electronic Music Composition I
MUSC 2450   Vocal Performance Workshop
PHIL 1114   Introduction to Philosophy
PHIL 1125   Ethics
PHIL 1130   Environmental Ethics
PHIL 1135   Bioethics
PHIL 1160   Philosophy of Religion
SPAN 1001   Introduction to Hispanic Cultures
THTR 1121   Beginning Acting
THTR 1134   Theatre Appreciation

GOAL 7: HUMAN DIVERSITY

Goal: To increase student's understanding of individual and group differences (e.g. race, gender, class) and their knowledge of the traditions and values of various groups in the United States. Students should be able to evaluate the United States' historical and contemporary responses to group differences.

Student competencies for Goal 7: Students should be able to:
- Understand the development of and the changing meanings of group identities in the United States' history and culture.
- Demonstrate an awareness of the individual and institutional dynamics of unequal power relations between groups in contemporary society.
- Analyze their own attitudes, behaviors, concepts, and beliefs regarding diversity, racism, and bigotry.
- Describe and discuss the experience and contributions (political, social, economic, etc). of the many groups that shape American society and culture, in particular those groups that have suffered discrimination and exclusion.
- Demonstrate communication skills necessary for living and working effectively in a society with great population diversity.

RCTC courses that meet guidelines for Goal 7: Human Diversity

ANTH 1611   Physical Anthropology and Archeology
ANTH 1612   Cultural Anthropology
COMM 1130   Interpersonal Communication
COMM 2100   Intercultural Communication
COMM 2220   Gender and Communication
DANC 1125   Dance Appreciation
ENGL 2260   Literature: Topical Studies
ENGL 2273   Early American Literature
ENGL 2274   Modern American Literature
ENGL 2275   Asian-American Literature
ENGL 2276   Best Sellers
ENGL 2277   Women and Literature
ENGL 2297   Survey of Children's Literature
ENGL 2298   Adolescent Literature

GOAL 7 courses continued

HIST 1622	History of Minnesota
HIST 1624	U.S. History to 1865
HIST 1625	United States History 1865-Present
HIST 1628	History of the Americas
HIST 1640	Women in History
HIST 2070	History of the Rock and Roll Era
MCOM 1106	American Cinema
PSYC 1600	Positive Life Skills
PSYC 1611	Psychology of Adjustment
PSYC 2611	Social Psychology
PSYC 2618	General Psychology
PSYC 2622	Abnormal Psychology
PSYC 2626	Human Growth and Development
SOC 1612	Sex and Gender in Society
SOC 1614	Introduction to Sociology
SOC 2612	Marriage and Family Across the Life Span
SOC 2618	Social Interaction
SOC 2625	Minority Group Relations

GOAL 8: GLOBAL PERSPECTIVES

Goal: To increase student's understanding of the growing interdependence of nations and peoples and develop their ability to apply a comparative perspective to cross-cultural social, economic and political experiences.

Student competencies for Goal 8: Students will be able to:
- Describe and analyze political, economic, and cultural elements, which influence relations of states and societies in their historical and contemporary dimensions.
- Demonstrate knowledge of cultural, social, religious and linguistic differences.
- Analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution.
- Understand the role of a world citizen and the responsibility world citizen's share for their common global future.

RCTC courses that meet guidelines for Goal 8: Global Perspective

ARAB 1101	Beginning Arabic I
ARAB 1102	Beginning Arabic II
ARAB 2101	Intermediate Arabic I
ARAB 2102	Intermediate Arabic II
ART 1110	Art Appreciation
ART 1111	Art History Survey I
ART 1112	Art History Survey II
ART 1175	Art of the Islamic World
ASL 1107	American Sign Language I
ASL 1108	American Sign Language II
CHIN 1101	Beginning Chinese I
CHIN 1102	Beginning Chinese II
ECON 2215	Principles of Economics: Macro
ENGL 1121	Mythology and Ancient Legend
ENGL 2978	The Bible as Literature: Honors
FREN 1001	French Culture in a Global Context

FREN 1101   Beginning French I
FREN 1102   Beginning French II
FREN 2101   Intermediate French I
FREN 2902   Intermediate French II
GEOG 1614   Human Geography
GEOG 1615   Economic Geography
GERM 1101   Beginning German I
GERM 1102   Beginning German II
HIST 1611   The Ancient World
HIST 1612   The Medieval World
HIST 1613   Foundations of Western Civilization: From Ancient Greece to 1715
HIST 1614   Europe in the Modern Age
HIST 1615   War and Peace in the 20th Century
HIST 1617   World History to 1500
HIST 1618   World History Since 1500
HIST 1631   Modern Asian Civilizations
HIST 1650   History of Religion
HIST 2619   Issues in Modern World History
HUM 1001   Introduction to Hispanic Cultures
HUM 1020   French Culture in a Global Context
HUM 1111   Ancient Greek and Roman Culture and the Middle Ages: 900 B.C. to 1400 A.D.
HUM 1112   The Renaissance Through the Enlightenment: 1400 A.S. to 1770 A.D.
HUM 1113   The Romantic Age Through the Modern Age: 1770 A.D. to 2000 A.D.
ENGL 1125   Women's Perspectives
HUM 1131   The Art of Being Human
MUSC 1231   Introduction to World Music
MUSC 1340   World Drum Ensemble
PHIL 1160   Philosophy of Religion
POLS 1619   International Relations
PSYC 2620   Introduction to Cultural Psychology
SOMA 1101   Somali I
SOMA 1102   Somali II
SPAN 1001   Introduction to Hispanic Cultures
SPAN 1101   Beginning Spanish I
SPAN 1102   Beginning Spanish II
SPAN 2101   Intermediate Spanish I
SPAN 2102   Intermediate Spanish II
THTR 1134   Theatre Appreciation

GOAL 9: ETHICAL AND CIVIC RESPONSIBILITY

Goal: To develop students' capacity to identify, discuss, and reflect upon the ethical dimensions of political, social, and personal life and to understand the ways in which they can exercise responsible and productive citizenship. While there are diverse ways of social justice or the common good in a pluralistic society, students should learn that responsible citizenship requires them to develop skills to understand their own and other's positions, be part of the free exchange of ideas, and function as public-minded citizens.

Student competencies for Goal 9: Students will be able to:
- Examine, articulate, and apply their own ethical views.

- Understand and apply core concepts (e.g. politics, rights and obligations, justice, liberty) to specific issues.
- Analyze and reflect on the ethical dimensions of legal, social, and scientific issues.
- Recognize the diversity of political motivations and interests of others.
- Identify ways to exercise the rights and responsibilities of citizenship.

RCTC courses that meet guidelines for Goal 9: Ethical and Civic Responsibilities

BIOL 1101	Elements of Biology
MCOM 1110	Introduction to Mass Communications
HIST 1789	History of the American Presidency
HUM 1841	Studies in Leadership
PHIL 1114	Introduction to Philosophy
PHIL 1125	Ethics
PHIL 1135	Bioethics
POLS 1615	Introduction to American Government
POLS 1620	Constitutional Law
POLS 1630	Introduction to Political Science
SOC 1616	Social Problems

GOAL 10: PEOPLE AND THE ENVIRONMENT

Goal: To improve students' understanding of today's complex environmental challenges. Students will examine the inter-relatedness of human society and the natural environment. Knowledge of both biophysical principles and socio-cultural systems is the foundation for integrative and critical thinking about environmental issues.
Student competencies for Goal 10: Students will be able to:
- Explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems.
- Discern patterns and interrelationships of biophysical and socio-cultural systems.
- Describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.
- Evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
- Propose and assess alternative solutions to environmental problems.
- Articulate and defend the actions they would take on various environmental issues.

RCTC courses that meet guidelines for Goal 10: People and the Environment

BIOL 1100	Environmental Biology
BIOL 1102	Plant Biology
BIOL 1220	Concepts of Biology
CHEM 1100	Chemistry and Our World Today
ESCI 1004	Earthquakes and Volcanoes
ESCI 1101	Earth Systems Science
ESCI 1114	Physical Geology
ESCI 1144	Environmental Geology
ESCI 1154	Introduction to Meteorology
ECON 1101	Introduction to Economics
ECON 2214	Principles of Economics: Micro
ENGL 2284	Literature and the Environment
PHIL 1130	Environmental Ethics
PSYC 1650	Evolution and Human Behavior
SOC 1618	Environmental Sociology

RCTC Additional General Education Options (Allied Studies):

In addition, to the ten Minnesota Transfer Curriculum goals, at Rochester Community and Technical College, AAS and Diploma students have three more general education goal options. Courses listed under Goals 11-13 may not transfer as general education courses to some four-year colleges and universities. Students are responsible for contacting probable transfer institutions to determine transferability of Goals 11-13.

ALLIED STUDIES GOAL 11-13 OPTIONS ARE:

RCTC GENERAL EDUCATION GOAL 11: HEALTH AND WELLNESS*

Goal: To promote health is an obligation of education and of every citizen. These courses may be used to satisfy Goal 11 as indicated for specific AAS majors.

Goal 11 Courses:

HLTH 1109	Community CPR/First Aid and Safety
HLTH 1111	Health Education
HLTH 1114	Responding to Emergencies
HLTH 1132	Drug Use and Abuse
HLTH 1135	Holistic Health
HLTH 2126	Women's Health Issues
NUTR 1211	Nutrition
PHED	All activity courses numbered 1100-1199
PHED	One credit may be from PHED 1210-1236 or PHED 2210-2236
REC 2223	Outdoor Education & Recreation

RCTC GENERAL EDUCATION GOAL 12: COMPUTER/INFORMATION LITERACY*

Goal: To function successfully in today's world, students need to be prepared to use computer systems to be able to navigate, locate, evaluate, and present information.

Goal 12 Courses:

BTEC 1010	Computer Basics
BTEC 1320	Word Processing
BTEC 1510	Internet Applications
COMP 1112	Introduction To Computers, with Applications
INFS 1115	Information Literacy

RCTC GENERAL EDUCATION GOAL 13: CAREER AND PERSONAL DEVELOPMENT*

Goal: To prepare students personally and professionally, students should have an understanding of careers and should acquire skills for workplace preparation and common, life activities/responsibilities.

Goal 13 Courses:

BTEC 2870	Employment Strategies
BUS 2102	Personal Finance
CAOR 1101	Career and Lifestyle Planning
CAOR 1103	Career Explorations
CD 1210	Foundations of Child Development
ENGL 1111	College Reading
ENGL 1630	College English
MATH 1102	College Math

PL 1102	Self Esteem
PL 1104	Stress Management
STSK 1670	College Study Skills

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Program Overviews

Accounting

Career/Program Overview

RCTC offers three program options for students interested in accounting. These include technical programs and a transfer program to four-year institutions.

The technical programs are for a student who is looking for intensive short-term training for immediate employment. The programs range from 30 semester credits to 60 semester credits. RCTC's Associate in Science Accounting degree is designed for transfer. This degree is for the accounting student interested in pursuing a Bachelor's degree or beyond.

A graduate from RCTC's Accounting Clerk diploma is prepared for careers that require calculating, journaling, posting, and verifying accounting records. Additional duties can also include preparing bank reconciliation statements and processing payroll, vouchers, and invoices.

A graduate from RCTC's Accountant Associate in Applied Science (A.A.S.) degree is well prepared to examine, analyze and interpret accounting data for the purpose of preparing financial statements and giving related advice.

RCTC graduates with an Associate in Science (A.S.) or transfer degree are prepared for an entry-level accounting position and can transfer to complete a bachelor's degree. A bachelor's degree can help prepare the individual to earn the designation of CPA or CMA.

Curriculum-at-a-Glance

Depending on the program degree option selected, coursework may include payroll accounting, computerized accounting, spreadsheet applications, applied cost accounting, managerial accounting, integrated financial presentations and more.

Program/Degree Options

RCTC offers an Accounting Clerk diploma, an Accountant A.A.S. degree, and an Accounting A. S. degree. The program options range from a required 30 credits for the diploma to 60 credits for the A.A.S. or A. S. degrees.

Program Start Date(s)

Students can start coursework any semester. Some courses are offered online, 8-week accelerated, face-to-face (day and evening), and hybrid. Some courses are not offered every semester so students are encouraged to meet with program advisors to plan ahead.

Career Opportunities/Information

Every business, government and nonprofit entity has a need for accounting. Pay and benefits vary with employer size, location and type. Compensation also varies with the employee's education, experience and responsibility.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Accounting Clerk Diploma:
http://www.rctc.edu/catalog/ge/ACCTCLERK.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/acct/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Administrative Assistant

Career/Program Overview

RCTC offers various degree options as an Administrative Assistant, Administrative Assistant: Legal Emphasis, a Customer Service Administrative/Specialist and a certificate program as a Software Application Specialist. Administrative Assistant coursework develops office skills, knowledge, and attitudes sought by today's employers. Extensive training is provided in communications, current software applications, internships, and other office-related technology.

Curriculum-at-a-Glance

Depending on the program option selected, coursework may include written and oral communications, word processing, machine transcription, human relations, computer voice technology, microcomputer business applications and internships.

Program/Degree Options

- **Administrative Assistant Refresher Certificate (20 credits)**
- **Administrative Assistant Certificate (27 credits)**
- **Administrative Assistant Diploma (37 credits)**
- **Administrative Assistant Associate in Applied Science (61 credits)**
- **Administrative Assistant Associate in Science (60-credits)**
- Customer Service Administrative Specialist Diploma (33 credits)
- Customer Service Office Assistant Certificate (16 credits)
- Software Applications Specialist Certificate (16 credits)
- Administrative Assistant: Legal Emphasis Certificate (23 credits)

Program Start Date(s)

Students can start coursework any semester. Full-time and part-time schedules are available. All courses in the Administrative Assistant A.S., A.A.S., Administrative Assistant, Customer Service Diploma, Administrative Assistant including Legal and Customer Service Certificate options are available online. Many courses within each of these programs are also offered on campus, too.

Career Opportunities/Information

Job opportunities for Administrative Assistants may be available in large and small offices including IBM, Mayo Clinic, the City of Rochester, Olmsted County, Non Profit Organizations, public and private educational campuses, manufacturing, law practices and insurance firms to name a few.

Salaries will vary in Minnesota depending upon specialty skills. Average salary is 17.54 in MN Range – $12.25 to $23.06.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Administrative Assistant Certificate; Administrative Assistant Legal Emphasis Certificate; Administrative Assistant Diploma and Administrative Assistant Refresher Certificate: http://www.rctc.edu/catalog/ge/ADMINASST-CERT-LEGAL.pdf http://www.rctc.edu/catalog/ge/ADMINASST-DIP-REFRESHER.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/btec/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Administrative Clinic Assistant

Career/Program Overview

A career as an Administrative Clinic Assistant involves patient and physician contact, detailed appointment scheduling, phone work, electronic medical record maintenance and tracking. Students will understand the importance of team building, working in a fast paced electronic work environment. Training will involve both classroom training and hands on training. Successful completion of this program would prepare graduate to assume the role of a Patient Service Representative, Patient Appointment Coordinator and Clinical Assistant.

Curriculum-at-a-Glance

Coursework will include written and oral communications, word processing, human relations, customer service skills, computer basics and patient procedures as an administrative clinic assistant.

Program/Degree Options

Administrative Clinic Assistant Diploma (32 credits)

Program Start Date(s)

Students can start coursework any semester. Full-time and part-time schedules are available. Courses are offered online, in a mixed format of online and on campus (hybrid). Many courses within this program are offered on campus too.

Career Opportunities/Information

Job opportunities for Administrative Clinic Assistants may be available in large and small clinics including Mayo Clinic, Olmsted Medical, Chiropractic, Podiatry, Optometric and Dental clinics. Salaries will vary in Minnesota depending upon clinic specialty. Average starting salary is 13.89 to $15.00.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Additional Information

Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Alcohol and Drug Counseling

Career/Program Overview

The Alcohol and Drug Counseling Program prepares graduates for temporary or full licensure with the Minnesota Board of Behavioral Health as Alcohol and Drug Counselors.

The program is designed for students who want to learn more about chemical dependency issues and/or whom desire a career as an addiction counselor. Students gain valuable classroom knowledge in 12 core areas of addiction counseling theory, practice, and skill development. Through the required practicum placements in a licensed chemical dependency facility students gain valuable and necessary practical experience under the supervision of a Licensed Alcohol and Drug Counselor.

The program does not license a student as an alcohol and drug counselor. It does provide the minimum college coursework and practicum opportunities needed to apply for licensure in the State of Minnesota. Upon successful completion of the Alcohol and Drug Counseling Program at RCTC, students are eligible to sit for the IC&RC national exam and can apply for at least a temporary licensure with the Minnesota Board of Behavioral & Health. Graduates whom hold a bachelor's degree or higher are eligible to apply for full permanent licensure.

Curriculum-at-a-Glance

The curriculum provides students with 19 credits of specific alcohol and drug counseling coursework in at least 12 core competency areas including: foundational theory, screening, intake, orientation, assessment, treatment planning, counseling skills, case management, crisis intervention, client education, referral, record keeping, consultation, ethics, multicultural aspects, pharmacology, and co-occurring disorders. An 880-hour practicum is the pinnacle of the academic experience.

Program/Degree Options

RCTC offers an Associate of Science Degree in Alcohol and Drug Counseling. The degree includes the professional core of addiction coursework as well as the necessary general education credits.

Program Start Date(s)

Students can enroll on a part-time or full-time basis and may begin either fall or spring semester.
All interested students must complete admission requirements prior to enrolling in the ADC courses. Contact the Health Careers Advisor or Department Coordinator for the admission application.
All students must successful pass the background study as required by the Minnesota Department of Human Services prior to starting the coursework.

Career Opportunities/Information

Graduates of the program may apply for temporary or permanent licensure as Alcohol and Drug Counselors through the MN Board of Behavioral Health. Graduates may also work directly in the addictions field as chemical dependency technicians, case managers, or residential managers.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The RCTC Alcohol and Drug Counseling AS Degree articulate with the Winona State University Bachelors in Social Work. Students are directed to contact the Social Work Department at WSU for details regarding transfer.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/alcohol-drug-counseling/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Art+Design

Career/Program Overview

RCTC's Art + Design programs prepare students for opportunities as studio artists, photographers, digital artists, graphic designers, interactive designers, web designers, and Mobile Application Developers. The programs focus on artistic creation using traditional and electronic media. The degree programs consist of a liberal art core and offer programs of study in Studio Art, Graphic Design, Interaction Design. Certificate programs allow students to focus on an area of study including Digital Art, Mobile Application Development, Motion Graphics and Photography.

Curriculum-at-a-Glance

Depending on which degree or certificate option selected, coursework may include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Introduction to Digital Photography, Photographic Darkroom Processes, Intermediate Digital Photography, Studio Lighting Techniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Art + Design Projects, Animation and 3D Modeling, Interactive Web Design I and II, and Motion Graphics I and II, Directed Studies, and Art Portfolio.

Program/Degree Options

RCTC's Art + Design programs offer several different areas of emphasis and degree options. These options include: Art, Associate in Fine Arts Degree Program; Graphic Design, Associate in Science Degree Program; Interaction Design (Web Design), Associate in Science Degree Program (Optionally completely online); Photography, Certificate Program; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, Certificate Program (Optionally completely online).

Program Start Date(s)

Programs can be started when courses start at the beginning of any semester. Some courses may be offered only once a year. Check the RCTC catalog for course availability by semester. Consult your academic advisor for your program of study.

Career Opportunities/Information

Studio Artists work in traditional art media including drawing, painting, ceramics, sculpture, printmaking, photography, and fibers. Most of a Studio Artist's day is spent creating artwork, arranging shows, and preparing work for exhibition. They create work to display and sell in galleries. Studio Artists can also work in galleries, art centers, and provide artwork to collections.

Graphic Designers combine text and graphics in order to communicate a message. Most of a Graphic Designer's day is spent researching needs, sketching solutions, or creating designs for logos, layouts, and environments. They provide solutions to their client's visual communication problems.

Interaction Designers / Web Designers combine text and graphics to create functional and compelling web sites for their clients. Most of a Web Designer's day is spent researching needs, testing the usability, developing design solutions, or implementing web sites. They provide clients with a functional web site that communicates the messages the client intends. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

Digital Artists create computer illustrations, photographic illustrations, and other graphic elements. Most of a Digital Artist's day is spent on developing a project, drawing pictures, or assembling artwork. They provide content to graphic designers, web designers, and interactive designers. Digital Artists also exhibit their work in galleries and museums.

Mobile Application Developers combine text, graphics and programming to create applications for smart phones, tablets and other mobile devices. Most of a Mobile Application Developer's day is spent researching, creating, animating, and programming interactive content for mobile devices. Mobile Application Developers often work for a design agency, a business or as freelance programmers.

Motion Graphic Artists work at creative firms, advertising agencies, in-house design departments, or as freelancers. Motion Graphic Artists combine text, graphics, animation, video, sound, and user input to create a rich environment and experience for the user. Most of a Motion Graphic Artist's day is spent researching, creating, animating, and developing interactive content. Motion Graphic Artists often work at a design agency, as a freelancer, or exhibit their work in galleries.

Photographers create lens-based images using both digital and analog materials. Most of a Photographer's day is spent creating images, networking, or managing a business. Photographers make images for clients, for publication, or for exhibition. Photographers are often self-employed or work as an in-house photographer for a business.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Motion Graphics Certificate; Digital Art Certificate and Photography Certificate:
http://www.rctc.edu/catalog/ge/MOTIONGRAPHICS.pdf
http://www.rctc.edu/catalog/ge/DIGITALART.pdf
http://www.rctc.edu/catalog/ge/PHOTOGRAPHY.pdf
http://www.rctc.edu/catalog/ge/MOBILEAPP.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

An articulation agreement for Art, Associate in Fine Arts Degree Program has been established between RCTC and Minnesota State University, Mankato. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program have been established with Minnesota State University, Moorhead.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact

Automobile Mechanic

Career/Program Overview

RCTC's Automobile Mechanic major is designed to prepare students for careers in the automotive industry. They will learn to inspect, maintain, diagnose, and repair, automobiles and light trucks. Our goal is to prepare students for the ASE certification test.

Instruction includes courses in servicing vehicles, diagnosis and repair of brakes, steering and suspension, starting and charging systems, electrical service, engine overhaul, fuel systems, driveline and differentials, clutches, automatic, manual transmissions, and air conditioning. A welding course is also part of our program.

On-board computer diagnostics along with CAN (controller area network) buss systems are taught. Instruction is also given in electronics and other high tech areas such as super charging and turbo charging.

Curriculum-at-a-Glance

In addition to the 61 credits of professional or technical courses noted above, students seeking the Automobile Mechanic diploma are required to complete 8 general education credits.

Program/Degree Options

RCTC offers a diploma in Automobile Mechanics. The diploma can be completed in as little as two years if taken full-time.

Program Start Date(s)

Students typically start coursework in fall semester only. Occasionally there are 2 or 3 openings for spring semester starts. Automobile Mechanic courses are not offered summer semesters; however, some of the general education requirements may be offered during the summer.

Career Opportunities/Information

Job opportunities exist with repair shops, dealerships, fleet owners, and businesses performing specialized service work. Graduates typically start as entry level mechanics. With further education and/or experience, graduates can go on to specialize in an area such as rebuilding components, or they can advance to shop foreman or service manager. Several RCTC graduates have opened their own repair businesses.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Automobile Mechanic Diploma:
http://www.rctc.edu/catalog/ge/AUTO.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

RCTC's Automobile Mechanic instructors are ASE certified and have many years of mechanical and teaching experience.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/amt/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Bioinformatics Foundations

Career/Program Overview

Rochester Community and Technical College offers several Computer Careers program/degree options. These options include an A.S. in Computer Information Systems, an A.S. in Computer Science, an A.S. in Bioinformatics Foundations and certificate in Computer Skills.

Curriculum-at-a-Glance

The A.S. degrees in Computer Science, Computer Information Systems, and Bioinformatics Foundations require Computer Science Concepts, Programming & Problem Solving and Algorithms & Data Structures. These A.S. degrees target a broad range of students interested in Computer Science/Information Systems and are intended for students planning to transfer to a variety of CS, CIS, IT and associated four-year degree programs.

Program/Degree Options

The Computer Information Systems (CIS), Bioinformatics Foundations (CIS) and Computer Science (CS) A.S. degrees are intended for students planning to transfer to a four-year degree program. The degrees are articulated with a variety of four-year degree programs (primarily with Winona State University). The Computer Skills certificate is 10 credits and consists of three courses.

Program Start Date(s)

General course work can be taken any semester. It is possible to complete the programs on either a part-time or a full-time basis.

Career Opportunities/Information

For Computer Science/Information Systems and Bioinformatics Foundations, the Department of Labor predicts that employment is expected to increase much faster than the average as organizations continue to adopt increasingly sophisticated technologies.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website:
http://www.rctc.edu/program/bioinformatics/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Biotechnology

Career/Program Overview

RCTC offers an Associate of Science degree in Biotechnology which is designed as a transfer program.

Curriculum-at-a-Glance

The Associate of Science degree program include specially developed courses that introduce students to clinical and research practices which deal with human subject issues and patient care, as well as, give hands on laboratory experience which builds skills and techniques specific to a biotechnology laboratory. Coursework also includes: General Biology, Chemistry, Math, and other general education coursework.

Program/Degree Options

RCTC offers an Associate of Science degree programs in Biotechnology.

Program Start Date(s)

Students can begin general education requirements any semester.

Career Opportunities/Information

Biotechnology technicians work in research and clinical labs of healthcare organizations, in the pharmaceutical and healthcare industry, and in research institutions.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Plan: http://www.rctc.edu/catalog/programs/
Program website:
http://www.rctc.edu/program/biotechnology/index.cfm
More Information:
http://www.rctc.edu/contact/

Building Utilities Mechanic

Career/Program Overview

RCTC's Building Utilities Mechanic (BUM) major is designed to prepare students for careers requiring skills in the operation, maintenance, troubleshooting, and repair of electrical and mechanical equipment found in residential and commercial buildings.

Curriculum-at-a-Glance

RCTC's BUM program is comprised of 72 credits. First year instruction includes courses in boiler operation, electricity, plumbing, tool usage, welding, electrical controls, motor controls, and programmable logic controls. The second year of instruction includes courses in residential and commercial refrigeration, air conditioning, pneumatics, heating and cooling controls, and computerized energy management systems. Also in the second year, students are placed with a co-op training sponsor to gain hands-on work experience. After initial training, students may take the state examination for a special steam engineer's license. After completion of the second year, students who qualify may take the state examination for second class "A" steam engineer's license and/or refrigeration certifications.

Program/Degree Options

RCTC offers both a Diploma and an Associate in Applied Science (A.A.S.) Degree in Building Utilities Mechanic. The Diploma and A.A.S. options are 72 credits and can be completed in as little as two years if taken full-time. Part-time options are also available.

Program Start Date(s)

The Building Utilities Mechanic courses begin fall and spring semesters. Professional core courses are not offered summer semesters; however, some of the general education requirements may be offered during the summer.

Career Opportunities/Information

Building Utilities Mechanic graduates usually start at entry level positions in various maintenance operation areas in medical clinics, hospitals, waste to energy plants, power plants, hotels, educational, manufacturing, processing and industrial facilities. Graduates of the BUM program may also be employed as service technicians in the heating/ventilation/air conditioning (H.V.A.C) field, building trades, and some are self-employed in the H.V.A.C. field.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Building Utilities Mechanic Diploma (the Green Energy Management Certificate is currently not being offered.): http://www.rctc.edu/catalog/ge/BUM.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/bum/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Business

Career/Program Overview

RCTC's Business Administration and Business Management programs are designed to provide an overview of the practical and theoretical knowledge needed to prepare students for careers in marketing, management, sales, advertising, retailing, wholesaling and related fields. These programs are designed to provide opportunities for students to implement and test the skills they learn.

Curriculum-at-a-Glance

Depending on the program option selected, coursework could include management, accounting, economics, business law, organizational dynamics, marketing, e-business, international business, statistics and/or business internship.

Program/Degree Options

RCTC offers two certificate options, one Associate in Science (A.S.) degree and two Associate in Applied Science (A.A.S.) degrees in Business. The Business Administration certificate is 21credits and can be completed during the day, evening or online. The Business Management certificate is 13 credits in length. The RCTC Business Administration (A.S degree), the Business Management (A.A.S. degree), and the Business Management-Marketing (A.A.S. degree) are each 60 credits and can be completed in as little as two years.

Program Start Date(s)

Students can start coursework any semester. Many courses are offered online and some in an accelerated format. Some courses are not offered every semester so students are encouraged to meet with program advisors to plan ahead.

Career Opportunities/Information

Fortunately business is one field that offers both a rich diversity of career opportunities and a favorable job market. RCTC business graduates are employed in careers in management, accounting, finance, banking, marketing and sales.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Business Administration Certificate: http://www.rctc.edu/catalog/ge/BUSADMIN.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/bus/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Cardiovascular Invasive Specialist

Career/Program Overview

RCTC's Cardiovascular Invasive Specialist (CVIS) program trains students to work in collaboration with and under the supervision of physicians to assist with the preparation and to perform diagnostic and therapeutic invasive cardiology procedures. The CVIS technologist must have the technical skills and competence to assist with these invasive procedures. Invasive cardiovascular procedures are performed in a clinical cardiovascular laboratory environment.

Curriculum-at-a-Glance

Coursework includes cardiovascular anatomy and physiology, cardiovascular pathophysiology, electrocardiography, cardiovascular pharmacology, diagnostic angiography, interventional angiography, electrophysiology, cardiac pacing, cardiovascular hemodynamics, valvular assessment, pediatric/congenital heart disease assessment, cardiac/coronary physiology assessment, x-ray and radiation safety, and instrumentation and electronics associated with the cardiac laboratory environment.

Program/Degree Options

RCTC's Cardiovascular Invasive Specialist is an Associate in Applied Science degree. Graduates of the CVIS program are also awarded a Certificate of Completion by Mayo School of Health Sciences.

Program Start Date(s)

This program is jointly offered by RCTC and Mayo Clinic. Applications can be obtained from Mayo School of Health Sciences. Students are admitted through the Mayo School of Health Sciences.

The CVIS program is 62 credits and can be completed in as little as 21 months. During the first two semesters at RCTC, students will take general education and CVIS coursework. All additional coursework will be completed at Mayo Medical Center – St. Mary's Hospital campus.

Career Opportunities/Information

Starting wages for the CVIS graduate are approximately $21-$32 per hour or an average of $45,000 + annually. Wages can vary depending on the employer and geographic area.

Typically a graduate of the CVIS program will work in a clinical environment located in a hospital or clinic setting. Many of these are found in larger medical centers, but there are stand-alone facilities as well. These could be corporate non-profit or private clinical environments.

The training received in the CVIS program will allow a person to cross train in a diagnostic clinical area like a stress-test facility or a doctor's office. The course work in electrocardiography would also provide for the basic learning needed to cross-train as an EKG tech or monitor tech.

Much of the clinical curriculum is designed to be applicable for the students learning in the event that they would choose to further their education as a nurse, a radiology technician or in medicine.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools. Mayo Foundation is accredited by the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Program Advisors

Lee D. Meyer, RN, Mayo, Program Director at 507-255-0394 or meyer.lee@mayo.edu
Nirmala Kotagal, Ph.D., RCTC Program Advisor, at 507-280-2816 or nirmala.kotagal@roch.edu

Additional Information

Program Website: http://www.mayo.edu/mshs/cis-cis.html
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Carpentry

Career/Program Overview

RCTC's Carpentry program is designed to prepare students for careers as carpenters in residential and commercial construction, factories, cabinet shops, and building maintenance fields.

The primary activity of the RCTC program is the building of a house. This house building experience includes laying out the house on the lot, building the footing forms, rough framing, shingling the roof, insulating, hanging the drywall, and trimming out the house. About two-thirds of the instruction is spent in the lab working on mock-ups or at the job site working on the house.

Curriculum-at-a-Glance

Instruction includes courses in theory and shop practice in the proper uses of hand and power tools and machines, building footings and foundations, site layout, rough framing, exterior and interior finishing, blueprint reading and cost estimating.

Program/Degree Options

RCTC's Carpentry major is a 32-credit diploma program that can be completed in as little as one year.

Program Start Date(s)

Students planning to attend full-time and complete the program in one year must start fall semester.

Career Opportunities/Information

Career opportunities exist with independent home builders, commercial contractors, lumberyards, furniture manufacturers, and cabinet making shops. Graduates typically start out as entry-level carpenters. With further education and work experience, they can become journeymen carpenters, foremen or start their own business.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Carpentry Diploma:
http://www.rctc.edu/catalog/ge/CARPENTRY.pdf

Articulations/Accreditations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/carpentry/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Child, Youth, and Family Studies

Career/Program Overview

RCTC's Child, Youth, and Family Studies major is designed to provide students with a comprehensive, basic curriculum needed to work in careers with families and children from infancy through youth in a variety of settings. Students gain necessary skills and competencies by observing and working with children in a four-star rated Head Start classroom, as well as through classroom lecture/discussions, projects, observations, and hands-on practical experiences.

Curriculum-at-a-Glance

Depending on which degree option is selected, coursework may include Child Development; Health, Safety, and Nutrition; Guidance; Observing and Assessing, Child and Youth Issues; Learning Environments, Creative Development Experiences; Multicultural Learning Experiences, or Children and Youth with Special Needs.

Program/Degree Options

RCTC's Child, Youth, and Family Studies program offers two certificates, diploma, and an A.A.S degree. The 22 credit certificate in Child Development program meets the Minnesota Department of Human Services (DHS) educational requirement for assistant teachers in child care centers. The 32-credit Child Development diploma option meets the minimum (DHS) educational requirements for teachers in child care centers. DHS Rule 3 requires additional work experience for individuals with a certificate or diploma in order to be hired as an assistant teacher or teacher.

The 17 credit Youth Work Certificate prepares students to become youth service workers and youth development practitioners. Students may combine the Youth Work Certificate with an Associate of Arts degree in Liberal Studies and seek further education to earn a degree in youth studies, child and youth studies, or youth ministry.

RCTC offers three different areas of emphasis within the A.A.S. degree in Child, Youth, and Family Studies. Students can choose to focus on diversity, inclusion and special needs, or youth studies.

Program Start Date(s)

Child Development coursework can be taken any fall, spring, or summer semester. Depending on which degree option selected - students may need to start fall semester in order to complete the degree option in one or two semesters. If taken on a full-time basis, the diploma program can be completed in as little as one year and the A.A.S. degree within two years.

Career Opportunities/Information

Upon graduation students will be eligible for employment that provides direct services to children, youth, and families. Many graduates are employed in nursery schools, special education programs, Head Start, and schools as paraprofessionals, licensed family child care providers; youth workers, or family service workers, and home visitors. Graduates of the program may seek further education to earn a degree in early childhood education, elementary education, early childhood special education, child development and family studies, youth studies, psychology, or social work.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Child Development Diploma and Child Development Certificate:
http://www.rctc.edu/catalog/ge/CHILDDEV-DIP.pdf
http://www.rctc.edu/catalog/ge/CHILDDEV-CERT.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations

Additional Information

Program Website: http://www.rctc.edu/program/cd/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Clinical Neurophysiology Technology

Career/Program Overview

The Clinical Neurophysiology Technology Program at Mayo Clinic offers training in electroneurodiagnostic technology. Professionals in this health sciences field perform tests that assist physicians in the diagnosis and evaluation of diseases of the brain, peripheral and autonomic nervous systems, and disorders of sleep using sophisticated electronic testing equipment. Electroneurodiagnostic technologists interact with patients who range in age from newborns to the elderly.

Specifically this program prepares graduates to perform the following neurodiagnostic procedures: Electroencephalography (EEG) recording electrical activity of the brain; Nerve Conduction Studies (NCS) recording electrical activity of nerves and muscles; Evoked Potentials (EP) measuring the central nervous system response to sensory stimuli; Polysomnography (PSG) monitoring physiological activity during sleep and Autonomic Testing which is the measuring of involuntary nervous system function.

Curriculum-at-a-Glance

During the first nine months of the two year program students attend classes at RCTC and Mayo. During the final 15 months, students gain hands-on clinical experience in Mayo's Division of Clinical Neurophysiology and the Center for Sleep Medicine. Clinical rotations are scheduled in each laboratory.

Program/Degree Options

This program is jointly offered by RCTC and Mayo Clinic. Applications can be obtained from Mayo School of Health Sciences at http://www.mayo.edu/mshs/cnt-cnt.html.

Students are admitted through the Mayo School of Health Sciences.

The Clinical Neurophysiology Technology program is an Associate in Applied Science (A.A.S.) degree that consists of 81 credits and is 24-months in length. Upon completion of the degree, Mayo will also award a Certificate of Completion. Graduates are eligible to take professional certification examinations given by the American Board of Registered Electroneurodiagnostic Technologists, Inc. (ABRET), American Association of Electrodiagnostic Technologists (AAET), American Board of Electrodiagnostic Medicine (ABEM)) and the Board of Registered Polysomnographic Technologists (BRPT).

Program Start Date(s)

General course work can be started any semester. In order to complete the program in 24 months, students must start the CNT program and related coursework fall semester

Career Opportunities/Information

Career opportunities for electroneurodiagnostic technologists are excellent. Graduates are employed in hospitals, clinics, physician's offices, epilepsy monitoring units, sleep disorder centers, research institutions and the medical instrument industry.

Median annual starting salary for a full-time technologist is $45,000. Salary is dependent upon location and employer.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools. Mayo Foundation is accredited by the North Central Association of Colleges and Schools.

The CNT program is accredited by the Committee on Accreditation for Education in Neurodiagnostic Technology and the Commission on Accreditation of Allied Health Education Programs (CAAHEP).

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.mayo.edu/mshs/cnt-cnt.html
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Clinical Research Coordination

Career/Program Overview

The Clinical Research Coordination program is collaboration between RCTC and the Mayo School of Health Sciences (MSHS) at the Mayo Clinic in Rochester, Minnesota.

Clinical Research Coordinators (CRCs), under the direction of a principal investigator, are responsible for the organization, coordination, and overall integrity of a research project. Responsibilities include protocol development, screening, recruiting, enrolling participants, informed consent process, and collecting data, scheduling, dispensing study drugs, managing the use of investigational devices, ensuring data quality, and maintaining databases.

This program provides skill-based training as well as exceptional professional development opportunities and hands-on experience needed to create a well-rounded, fully competent CRC.

Curriculum-at-a-Glance

Coursework includes Medical Terminology: Body Systems & Diseases, Legal Aspects of Health Information, Project Management, Foundations of Clinical Research: Concepts and Theories, Introduction to Health Records, Legal and Regulatory Research Compliance, Foundations of Clinical Research: Applications, Clinical Research Site Management, and Fieldwork Experience. Additional general education is required to complete the Associate in Applied Science degree option.

Program/Degree Options

RCTC offers an Associate in Applied Science degree or a diploma option (for students who already hold at least an associate-level degree) in Clinical Research Coordination. The A. A. S. degree is 61 credits and the diploma option is 36 credits.

Program Start Date(s)

Students can start general education coursework any semester. The MSHS (those with a 'CRSC' prefix) courses are not offered every semester so students are encouraged to meet with program advisors to plan ahead. Because this program is jointly offered between RCTC and MSHS, students must apply to both institutions. http://www.mayo.edu/mshs/

Career Opportunities/Information

There is a great need for graduates with a CRC degree in the field of Clinical Research Coordination at Mayo Clinic and on a broader, national level. A formal education in this field enables CRCs to begin their career with the skills necessary for efficient and ethical management of clinical research and provide them with the knowledge and background needed to advance their career in clinical research management. With the increasing emphasis on biotech research in Minnesota, specifically in the Rochester area, the need for staff trained in human research will continue to increase. Career opportunities are found in academic research facilities, hospitals, physician offices, contract research organizations and biomedical research organizations.

CRCs have a very dynamic and challenging position that offers a lot of opportunities for growth and career development. Salary ranges vary ($36,000 - $71,000) depending on education and years of experience.

Gainful Employment Programs:

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Clinical Research Coordination Diploma:
http://www.rctc.edu/catalog/ge/CLINRSCHSTUDYCOOR.pdf

Accreditations/Articulations

Rochester Community and Technical College and the College of Medicine, Mayo Clinic/Mayo School of Health Science are accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Program Advisors

Nirmala Kotagal Ph.D., RCTC Program Advisor,
at 507-280-2816 or nirmala.kotagal@roch.edu.

Lori A. Carlson, RN, MBA, CCRC , Mayo Program Director,
at 507-538-1583 or carlson.lori@mayo.edu.

Aleisha K. Chappell, Mayo Education Specialist
Clinical Research Coordinator Programs,
at 507-255-7081 or chappell.aleisha@mayo.edu

Additional Information

Program Websites: http://ctsa.mayo.edu/education/clinical-research-coordination.html and
http://www.mayo.edu/mshs/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Coaching

Career/Program Overview

RCTC offers a Coaching Diploma that will meet the minimum criteria for interscholastic coaching positions in Minnesota. Upon completion of this program, which includes the American Educators Sport Program certification exams, individuals successfully completing the certification exams will be placed on the national registry for coaches or officials.

Curriculum-at-a-Glance

General coursework will include, but is not limited to, Coaching and Officiating Principles, Sport Psychology, Sport Nutrition for Performance, Prevention and Care of Athletic Injuries and sport specific physical training options, such as Strength, Agility & Quickness specific to individual sports and strategic, sport specific theory. Upon completion of the program's coursework an internship will also be completed.

Program/Degree Options

Coaching Diploma – 30 credits
        MNTC – Science options – 4 credits
        Professional Core – 23 credits
        Electives – 3 credits

Coaching Certificate – 10 credits
        Professional Core – 8 credits
        Electives – 2 credits

Related Field Programs
        Sport Management
        Personal Trainer
        Group Fitness Instructor
        * all have Certificate and Diploma options

Program Start Date(s)

Students may begin coursework any semester. Some courses are not offered every semester, so students are encouraged to meet with the program advisor to plan their coursework accordingly.

Career Opportunities/Information

RCTC's Coaching Diploma will prepare students for entry level coaching or officiating positions.   This coursework will expose student to the resources and professional networks that they will require to stay current in their profession over the length of their career. Coaching and officiating opportunities are available at every level from youth recreational sports to interscholastic, intercollegiate and professional. This program will enable individuals to start with a solid foundation and a nationally recognized accreditation.

Compensation varies with the employee's education, experience as well as with employer size, location and Level of coaching.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information:
http://www.rctc.edu/catalog/ge/COACHING-SPORTMGMT.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by the Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools, American Sport Educator's Program (ASEP) National Certification Exam for coaches and officials with placement on national registry with successful completion of program and exams.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website:
http://www.rctc.edu/program/coaching/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Coding Specialist

Career/Program Overview

RCTC offers three program options related to Health Information Management careers. These include an Associate in Applied Science degree in Health Information Technology, a Coding Diploma, and a Healthcare Informatics Certificate.

Health Information Technicians analyze, secure, and maintain patient health information. Other duties include coding diagnoses, processing reimbursements, managing release of medical information, maintaining quality assurance, and protecting patient data privacy.

Coders are specifically trained in the coding of medical/health records. By assigning the proper codes to diagnoses and procedures, accurate financial reimbursement may be made by insurance companies and government agencies.

Healthcare Informatics graduates are trained in the noncoding electronic aspects of health information. Specifically, these skills include archiving, document scanning, data management, release of information, record completion, accreditation compliance, and quality assurance.

Curriculum-at-a-Glance

Some of the core courses required to complete the Health Information Technician degree include the following: Medical Terminology, Anatomy and Physiology, Pathophysiology, Pharmacology, Microcomputer Applications, Coding and Reimbursement, Supervision of Health Information, Computerized Health Information, Health Record Systems, Legal Aspects of Health Information, Quality Analysis and Health Statistics, and Internships.

Program/Degree Options

RCTC offers a Coding Diploma, a Healthcare Informatics Certificate and the Health Information Technology Associate in applied Science degree. The certificate, the diploma, and the A.A.S. degree can all be completed entirely online.

Program Start Date(s)

Students can start coursework any semester. All courses are offered Fall and Spring semester; there are limited course offerings in the summer.

Career Opportunities/Information

Health Information Technology graduates may find work in quality assurance, computer information services, tumor registries, or release of medical information. Some technicians are responsible for coding diagnoses and procedures for reimbursement while other technicians concentrate in patient data privacy rights and other ethical, legal and regulatory requirements.

According to the Bureau of Labor Statistics, employment of health information management professionals is expected to grow much faster than the average (increase of 27% or higher) for all occupations through 2014. Moreover, competitive salaries also await graduates; in fact, new graduates with an associate's degree can earn between $30,000 and $34,000 annually. With advanced experience or a bachelor's degree, salaries in the $40,000 - $75,000 range are possible.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information:
http://www.rctc.edu/catalog/ge/CODINGSPEC.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The HIT program is also accredited as a quality online program by NCA.

The RCTC Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) in association with the American Health Information Management Association (AHIMA).

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/hit/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Community Health Worker

Career/Program Overview

RCTC's Community Health Worker program is designed to prepare students for careers as liaisons between clients and health care and social services. Upon completion of the program you will be able to help improve the access to services, improve the quality and cultural competence of care, create an effective system of chronic disease management, and increase the health knowledge and self sufficiency of underserved populations.

Curriculum-at-a-Glance

- You will develop critical thinking as a framework for solving problems and making decisions.
- You will gain an understanding of how ethics influence client care.
- You will learn how to gather and record appropriate client and community information.
- You will acquire knowledge of basic concepts of the most common diseases found in client populations.

Program/Degree Options

RCTC's Community Health Worker program is a 16-17 credit certificate program designed to be completed in one semester.

Program Start Date(s)

Students must attend full-time to complete the program in one year must start fall semester.

Career Opportunities/Information

The demand for community health workers is likely to increase as the population grows and ages. More trained workers will be needed at residential care facilities to help the elderly make appointments, coordinate referrals and follow medication instructions. Workers will also be needed at community-based and independent-living sites to assist the homeless, the mentally and physically disabled and those in substance abuse programs.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Community Health Worker:
http://www.rctc.edu/catalog/ge/COMHLTHWKR.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Additional Information

Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Computer Aided Drafting Technology

Career/Program Overview

RCTC's Computer Aided Drafting Technology (CAD) major is designed to prepare students for a technical career using Computer Aided Drafting tools and techniques. CAD drafters turn concepts, ideas, and rough sketches into mechanical prints then "prototypes" or finished parts can be fabricated, designed or repaired. The curriculum primarily covers the mechanical disciplines of drafting and design. The CAD courses are taught in state-of-the-art facilities featuring the latest release of SolidWorks.

Curriculum-at-a-Glance

Depending on the program/degree option selected, coursework may include: 3D CAD, Engineering Drafting Technical Drafting, Technical Illustration, Manufacturing Materials and Processes I and II, Basic and Advanced Dimensioning, Machine Design, Product Design, Welding Technology, Reverse Engineering & Rapid Prototyping, and Working Drawings & Design.

Program/Degree Options

RCTC offers two different program/degree options in CAD. RCTC offers a 68-credit diploma and a 72-credit Associate in Applied Science degree in CAD Technology.

The CAD Technology Associate of Applied Science and diploma majors will receive CAD training in a state of the art facility featuring the latest release of SolidWorks. If you are mechanically inclined and like taking things apart or figuring out how things work, this is the career for you. CAD drafters turn concepts, ideas, and rough sketches into mechanical prints then "prototypes" or finished parts can be fabricated, designed or repaired. CAD majors have the opportunity to create hands-on projects in our prototype lab. Employment opportunities exist in large and small industries. Graduates can advance into positions such as designers, associate engineers, inspectors, supervisors, sales, and purchasing personnel. The curriculum primarily covers the mechanical disciplines of drafting and design.

Program Start Date(s)

Students can start coursework for the CAD Associate in Applied Science degree and diploma degree in fall or spring semesters. Fall semester is preferred.

Career Opportunities/Information

According to the Occupational Employment Statistics in cooperation with the U.S. Bureau of Labor Statistics, the median wages of mechanical drafters (17-3013) in the United States is $23.65 per hour. In Minnesota the median hourly wage for mechanical drafters is $24.52. In Southeastern Minnesota, mechanical drafters can anticipate a median hourly wage of $21.99.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for CAD (Computer Aided Drafting) Technology Diploma and Precision Manufacturing Technology Diploma: http://www.rctc.edu/catalog/ge/CADTECHNOLOGY.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/cadtech/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Computer Information Systems

Career/Program Overview

Rochester Community and Technical College offers several Computer Careers program/degree options. These options include an A.S. in Computer Information Systems, an A.S. in Computer Science, an A.S. in Bioinformatics Foundations and certificate in Computer Skills.

Curriculum-at-a-Glance

The A.S. degrees in Computer Science, Computer Information Systems, and Bioinformatics Foundations require Computer Science Concepts, Programming & Problem Solving and Algorithms & Data Structures. These A.S. degrees target a broad range of students interested in Computer Science/Information Systems and are intended for students planning to transfer to a variety of CS, CIS, IT and associated four-year degree programs.

Program/Degree Options

The Computer Information Systems (CIS), Bioinformatics Foundations (CIS) and Computer Science (CS) A.S. degrees are intended for students planning to transfer to a four-year degree program. The degrees are articulated with a variety of four-year degree programs (primarily with Winona State University). The Computer Skills certificate is 10 credits and consists of three courses.

Program Start Date(s)

General course work can be taken any semester. It is possible to complete the programs on either a part-time or a full-time basis.

Career Opportunities/Information

For Computer Science/Information Systems and Bioinformatics Foundations, the Department of Labor predicts that employment is expected to increase much faster than the average as organizations continue to adopt increasingly sophisticated technologies.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/comp/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

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Computer Science

Career/Program Overview

Rochester Community and Technical College offers several Computer Careers program/degree options. These options include an A.S. in Computer Information Systems, an A.S. in Computer Science, an A.S. in Bioinformatics Foundations and certificate in Computer Skills.

Curriculum-at-a-Glance

The A.S. degrees in Computer Science, Computer Information Systems, and Bioinformatics Foundations require Computer Science Concepts, Programming & Problem Solving and Algorithms & Data Structures. These A.S. degrees target a broad range of students interested in Computer Science/Information Systems and are intended for students planning to transfer to a variety of CS, CIS, IT and associated four-year degree programs.

Program/Degree Options

The Computer Information Systems (CIS), Bioinformatics Foundations (CIS) and Computer Science (CS) A.S. degrees are intended for students planning to transfer to a four-year degree program. The degrees are articulated with a variety of four-year degree programs (primarily with Winona State University). The Computer Skills certificate is 10 credits and consists of three courses.

Program Start Date(s)

General course work can be taken any semester. It is possible to complete the programs on either a part-time or a full-time basis.

Career Opportunities/Information

For Computer Science/Information Systems and Bioinformatics Foundations, the Department of Labor predicts that employment is expected to increase much faster than the average as organizations continue to adopt increasingly sophisticated technologies.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/comp/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Computer Skills

Career/Program Overview

Rochester Community and Technical College offers several Computer Careers program/degree options. These options include an A.S. in Computer Information Systems, an A.S. in Computer Science, an A.S. in Bioinformatics Foundations and certificate in Computer Skills.

Curriculum-at-a-Glance

The A.S. degrees in Computer Science, Computer Information Systems, and Bioinformatics Foundations require Computer Science Concepts, Programming & Problem Solving and Algorithms & Data Structures. These A.S. degrees target a broad range of students interested in Computer Science/Information Systems and are intended for students planning to transfer to a variety of CS, CIS, IT and associated four-year degree programs.

Program/Degree Options

The Computer Information Systems (CIS), Bioinformatics Foundations (CIS) and Computer Science (CS) A.S. degrees are intended for students planning to transfer to a four-year degree program. The degrees are articulated with a variety of four-year degree programs (primarily with Winona State University). The Computer Skills certificate is 10 credits and consists of three courses.

Program Start Date(s)

General course work can be taken any semester. It is possible to complete the programs on either a part-time or a full-time basis.

Career Opportunities/Information

For Computer Science/Information Systems and Bioinformatics Foundations, the Department of Labor predicts that employment is expected to increase much faster than the average as organizations continue to adopt increasingly sophisticated technologies.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/comp/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Criminal Justice

Career/Program Overview

RCTC's Criminal Justice program was initially designed to better facilitate transfer to Bachelor degree programs in justice related careers. The program provides instruction in several fields including corrections, juvenile delinquency, security and law enforcement.

Curriculum-at-a-Glance

Coursework includes Introduction to Law Enforcement, Introduction to Corrections, Introduction to Criminal Investigations, Police Report Writing, Minnesota Criminal Statutes, Minnesota Traffic Statutes, Juvenile Law & Procedures, First Responder, Human Behavior for Law Enforcement, and Criminal Procedure.

Program/Degree Options

RCTC's Criminal Justice program is an Associate in Science (A.S.) degree designed for transfer to a bachelor degree program.

Program Start Date(s)

General course work can be taken any semester. Some courses are not offered every semester so students are encouraged to meet with program advisors to plan ahead.

Career Opportunities/Information

This program is designed for transfer to a four-year degree. Justice-related careers may be in the areas of corrections, security, or law enforcement.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website:
http://www.rctc.edu/program/criminal-justice/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Customer Service

Career/Program Overview

RCTC offers a variety of degree options such as an Administrative Assistant, Administrative Assistant: Legal Emphasis, a Customer Service Administrative/Specialist and a certificate program as a Software Application Specialist. Customer Service coursework develops office skills, knowledge, and attitudes sought by today's employers. Extensive training is provided in communications, current software applications, internships, and other office-related technology.

Curriculum-at-a-Glance

Customer Service career coursework includes written and oral communications, word processing, machine transcription, human relations, computer voice technology, microcomputer business applications and internships.

Program/Degree Options

Business Administrative Technology (BTEC) program/degree options include the following:
- Administrative Assistant Refresher Certificate (20 credits)
- Administrative Assistant Certificate (27 credits)
- Administrative Assistant Diploma (37 credits)
- Administrative Assistant Associate in Applied Science (61 credits)
- Administrative Assistant Associate in Science (60 credits)
- **Customer Service Administrative Specialist Diploma (33 credits)**
- **Customer Service Office Assistant Certificate (16 credits)**
- Software Applications Specialist Certificate (16 credits)
- Administrative Assistant: Legal Emphasis Certificate (23 credits)

Program Start Date(s)

Students can start coursework any semester. Full-time and part-time schedules are available. All courses in the Administrative Assistant A.S., A.A.S., Administrative Assistant, Customer Service Diploma, Administrative Assistant including Legal and Customer Service

Certificate options are available online. Many courses within each of these programs are also offered on campus, too.

Career Opportunities/Information

Job opportunities in a Customer Service Career will be working in a small or large office setting; including Mayo Clinic, Olmsted Medical, Chiropractic, Dental, Podiatry Clinics, public and private educational campuses, manufacturing, Telephone/Cable Internet Companies, Banking/Credit Unions, Sales and Insurance Organizations to name a few.

Salaries will vary in Minnesota depending upon specialty skills. Range $12.10 to $26.95

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Customer Service Administrative Specialist Diploma and Customer Service Office Assistant Certificate: http://www.rctc.edu/catalog/ge/CUSTOMERSERV.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/btec/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Dance

Career/Program Overview

RCTC's Dance Certificate Program prepares students for opportunities as dancers, dance enthusiasts, or dance choreographers and can lead to opportunities in dance education. The program focuses on dance as an artistic form.

Curriculum-at-a-Glance

Students enrolled in the Dance Certificate Program will be immersed in dance technique, creative projects, historical and theoretical thinking and aesthetic performance. Ballet, Modern, Jazz and Tap dance classes are all taught by a highly qualified faculty.

Students who wish to earn a 23-credit certificate in Dance will complete 12 credits from DANC course options (Dance Appreciation, Ballet, Modern, Jazz), 2 credits for PHED 1103 (Social Dance), 3 credits from Humanities and the Arts Minnesota Transfer Curriculum (MnTC) course options, and 6 credits of open electives/student choice MnTC course options.

Program Start Date(s)

Courses can be started any semester. Some courses may be offered only once a year. Check the RCTC catalog for course availability by semester. No previous experience in dance or movement is necessary to participate in the program. We are committed to dance training and performance that incorporates diverse cultures, styles, body sizes/shapes and abilities/disabilities.

Students enrolled in the Dance Certificate Program benefit from personal aesthetic development. In addition the program offers valuable training to build current professional skills and experience. Students use the certificate program to begin preparation for advanced specialization as performers, teachers, and choreographers or in work in dance related fields. The certificate program is an excellent introduction to the field and provides students with the foundations required for additional study.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Dance Certificate:
http://www.rctc.edu/catalog/ge/DANCE.pdf

Accreditation/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

Additional Information

Program Website:http://www.rctc.edu/program/DANCE.pdf
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Career Opportunities/Information

Dental Assistant

Career/Program Overview

A dental assistant is a vital member of the dental health team and enjoys a broad range of exciting and challenging duties. The common duties of a dental assistant include: preparation of instrument tray set-ups and treatment rooms, chairside assisting, expanded functions, patient oral care instruction, infection control and hazards management procedures, dental laboratory procedures, and dental business office procedures. Expanded functions are a special group of procedures a qualified Minnesota dental assistant may perform independently on a patient; such as polishing the teeth, taking radiographs, applying dental sealants, taking impressions, tying in orthodontic wires, and administering nitrous oxide-oxygen sedation.

The Dental Assistant major is designed to provide the student with the technical knowledge, manual skills, clinical experiences, and focus on professional behavior required to make the graduate a valuable member of the dental health care profession. The program prepares the student to function in both general and specialty dental practices.

Curriculum-at-a-Glance

Coursework includes: Dental Communications, Dental Science I and II, Chairside Assisting I and II, Dental Infection Control, Dental Radiology, Expanded Functions I and II, Dental Materials, Preventive Dentistry, and Dental Practice Management. Clinical experience is obtained in the technically current dental clinic, consisting of a reception room and business office, 18 treatment rooms, a recirculation/sterilization room, a radiography darkroom, and a complete dental laboratory. Patients come to the dental clinic for tooth polishing, fluoride treatments, dental x-rays, dental sealants, and personal oral care instruction. A dentist is on staff to aid in student instruction and supervision in expanded functions clinics. In the final semester of the program, students will further their clinical experience through three assigned internships in different dental offices in southeastern Minnesota. The internships are approximately three weeks each, with two in general dental practices, and one in a specialty dental practice.

Upon successful completion of the Dental Assistant program, graduates are eligible to sit for the Minnesota licensure exam, Minnesota jurisprudence exam, and the national certification exam for dental assistants.

Program/Degree Options

RCTC's Dental Assistant program offers both a 47-credit diploma option and a 64-credit Associate in Applied Science degree option. The diploma option may be completed in one full calendar year, or taken part-time in two years. Taking the program in one calendar year will be a heavy academic load so students are advised to limit part-time work to weekends. A limited number of part-time program options are available annually.

A 13-credit Expanded Functions certificate program is available for dental assistants who have already earned the credential of a certified dental assistant but who have not yet earned the credential of a Minnesota licensed dental assistant.

Program Start Date(s)

In order to complete the diploma program in one year, students must start the Dental Assistant program fall semester. Students who wish to complete the AAS program may start the general education courses in any semester.

Career Opportunities/Information

The career outlook for Certified and Licensed Dental Assistants in Minnesota is excellent. Dental Assisting is a career that includes excellent work schedules, attractive compensation packages, a pleasant work environment and is in high demand throughout the United States. A dental assistant may be employed in a general dental practice or a specialty dental practice. The dental specialties include: Pediatric Dentistry, Orthodontics, Oral and Maxillo-Facial Surgery, Endodontics, Periodontics and Prosthodontics. A dental assistant may be employed in solo or group dental practices, hospital dentistry, research institutions, government dental facilities, or dental training facilities. Some employment opportunities exist with dental product manufacturers and dental supply companies.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Dental Assistant Diploma: http://www.rctc.edu/catalog/ge/DENTALASST.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The RCTC Dental Assistant program is accredited by the ADA Commission on Dental Accreditation.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Miscellaneous Information

Program Pre-admission Requirements: 1) earned a high school diploma or GED, 2) have an overall G.P.A. of 2.75 or better, 3) earned a "B-" letter grade or better in high school Biology (full year) or college Biology (min. one semester, BIOL 1101 or its transfer equivalent), 4) placement into ENGL 1117 on the college's Accuplacer Assessment test, 5) declared Dental Assistant Program as first choice of major, and 6) completed both RCTC and Dental Assistant Program applications.

Program Course Requirements: Verification of Approved MN Department of Human Services and National Background Studies.
Current certification in Professional Rescuer Level CPR/AED through the American Red Cross or the American Heart Association.

Clinical & Laboratory Health & Safety Provisions: RCTC and the Dental Assistant Program comply with mandated and recommended health and safety policies to ensure a safe learning and working environment for students, staff, and patients. The RCTC Bloodborne and Infectious Disease Policy is accessible by entering RCTC Policy 6.4.4 in the search box on the RCTC website. Upon entering the Dental Assistant Program, students will be given a copy of the RCTC Dental Assistant Program Lab/Clinic Policies Manual, which details all program policies relating to infection control, hazards management, and safety in the lab and clinical settings.

Additional Information

Program Website: http://www.rctc.edu/program/da/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Dental Hygiene

Career/Program Overview

RCTC's Dental Hygiene program is designed to provide academic and clinical educational opportunities for capable individuals to acquire the knowledge, skills and attitudes necessary for the professional practice of dental hygiene. Dental hygienists are licensed oral health professionals who focus on preventing and treating oral diseases-both to protect teeth and gums, and also to protect patients' total health. They must take a written national board examination and a clinical examination before they are licensed to practice. In addition to treating patients directly, dental hygienists may also work as educators, researchers, and administrators. Members of the dental hygiene profession act as allied personnel to the dentist and make it possible for more complete preventative dental services to be provided to the public.

Curriculum-at-a-Glance

Coursework includes Anatomy and Physiology I and II, General Microbiology, General Chemistry, Principle of Nutrition, Oral Anatomy, Principles of Dental Hygiene I -IV, Oral Pathology, Periodontology, Dental Hygiene Practice I – IV, Dental Pharmacology, and Community Dental Health. General education courses and nutrition may be completed prior to enrollment in the Dental Hygiene program.

Program/Degree Options

RCTC's Dental Hygiene program is an Associate in Applied Science degree program. Graduates are eligible to take the licensure exams which are required in all 50 states for the practice of dental hygiene.

Program Start Date(s)

General education credits may be taken prior to entering the Dental Hygiene program. The dental hygiene courses are a four semester sequence and must be taken without a break in registration.

Career Opportunities/Information

In today's marketplace there are many opportunities for the licensed Registered Dental Hygienist. While most dental hygienists are employed in private dental practices, many other employment opportunities exist. Dental hygienists are employed in collaborative dental health care settings, higher education, research, administration, the military, long and short-term care facilities as well as other health care agencies. Job placement rates for RCTC Dental Hygiene graduates are improving and positions offer very competitive salary and benefits.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The Dental Hygiene program is accredited by the American Dental Association, Commission on Dental Accreditation.

RCTC's Associate in Applied Science degree in Dental Hygiene articulates with the Bachelor of Science in Dental Hygiene degree at Minnesota State University, Mankato.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/dh/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Digital Art

Career/Program Overview

RCTC's Art + Design programs prepare students for opportunities as studio artists, photographers, digital artists, graphic designers, interactive designers, and web designers. The programs focus on artistic creation using traditional and electronic media. The degree programs consist of a liberal art core and offer programs of study in Studio Art, Graphic Design, Interaction Design. Certificate programs allow students to focus on an area of study including Digital Art, Mobile Application Development, Motion Graphics and Photography.

Curriculum-at-a-Glance

Depending on which degree or certificate option selected, coursework may include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Introduction to Digital Photography, Photographic Darkroom Processes, Intermediate Digital Photography, Studio LightingTechniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Art + Design Projects, Animation and 3D Modeling, Interactive Web Design I and II, Motion Graphics I and II, Directed Studies, and Art Portfolio.

Program/Degree Options

RCTC's Art + Design programs offer several different areas of emphasis and degree options. These options include: Art, Associate in Fine Arts Degree Program; Graphic Design, Associate in Science Degree Program; Interaction Design (Web Design), Associate in Science Degree Program (Optionally completely online); Photography, Certificate Program; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, Certificate Program (Optionally completely online).

Program Start Date(s)

Programs can be started when courses start at the beginning of any semester. Some courses may be offered only once a year. Check the RCTC catalog for course availability by semester. Consult your academic advisor for your program of study.

Career Opportunities/Information

Studio Artists work in traditional art media including drawing, painting, ceramics, sculpture, printmaking, photography, and fibers. Most of a Studio Artist's day is spent creating artwork, arranging shows, and preparing work for exhibition. They create work to display and sell in galleries. Studio Artists can also work in galleries, art centers, and provide artwork to collections.

Graphic Designers combine text and graphics in order to communicate a message. Most of a Graphic Designer's day is spent researching needs, sketching solutions, or creating designs for logos, layouts, and environments. They provide solutions to their client's visual communication problems.

Interaction Designers / Web Designers combine text and graphics to create functional and compelling web sites for their clients. Most of a Web Designer's day is spent researching needs, testing the usability, developing design solutions, or implementing web sites. They provide clients with a functional web site that communicates the messages the client intends. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

Digital Artists create computer illustrations, photographic illustrations, and other graphic elements. Most of a Digital Artist's day is spent on developing a project, drawing pictures, or assembling artwork. They provide content to graphic designers, web designers, and interactive designers. Digital Artists also exhibit their work in galleries and museums.

Mobile Application Developers combine text, graphics and programming to create applications for smart phones, tablets and other mobile devices. Most of a Mobile Application Developer's day is spent researching, creating, animating, and programming interactive content for mobile devices. Mobile Application Developers often work for a design agency, a business or as freelance programmers.

Motion Graphic Artists work at creative firms, advertising agencies, in-house design departments, or as freelancers. Motion Graphic Artists combine text, graphics, animation, video, sound, and user input to create a rich environment and experience for the user. Most of a Motion Graphic Artist's day is spent researching, creating, animating, and developing interactive content. Motion Graphic Artists often work at a design agency, as a freelancer, or exhibit their work in galleries.

Photographers create lens-based images using both digital and analog materials. Most of a Photographer's day is spent creating images, networking, or managing a business. Photographers make images for clients, for publication, or for exhibition. Photographers are often self-employed or work as an in-house photographer for a business.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Motion Graphics Certificate; Digital Art Certificate and Photography Certificate:
http://www.rctc.edu/catalog/ge/MOTIONGRAPHICS.pdf
http://www.rctc.edu/catalog/ge/DIGITALART.pdf
http://www.rctc.edu/catalog/ge/PHOTOGRAPHY.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

An articulation agreement for Art, Associate in Fine Arts Degree Program has been established between RCTC and Minnesota State University, Mankato. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program have been established with Minnesota State University, Moorhead.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact

Emergency Medical Technology

Career/Program Overview

The primary focus of the Emergency Medical Technician is to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. The certificate EMT will receive general education courses that are designed to enhance their knowledge, skills and abilities. Becoming an EMT is the first step in becoming a paramedic. Emergency Medical Services offers a wide range of employment opportunities including ambulance services, fire departments, police departments, hospitals, helicopter services, and educational institutions. The program is also designed to meet the academic pre-requisites of the Intensive Care Paramedic Program.

Curriculum-at-a-Glance

Program-related courses may include: Emergency Medical Technician and general education credits necessary to meet pre-requisites of allied health degree programs.

Program/Degree Options

RCTC offers a 22-credit Certificate in Emergency Medical Technology.

Program Start Date(s)

Students can begin this certificate in any semester. Allied health students at RCTC are required to submit health information and pass a criminal background check.

Career Opportunities/Information

Employment of emergency medical technicians and paramedics is expected to grow 9 percent between 2008 and 2018, which is about as fast as the average for all occupations. Growth in this occupation is due in large part to increasing call volume due to aging population. As a large segment of the population—aging members of the baby boom generation—becomes more likely to have medical emergencies, demand will increase for EMTs and paramedics. In addition, the time that EMTs and paramedics must spend with each patient is increasing as emergency departments across the country are experiencing overcrowding. As a result, when an ambulance arrives, it takes longer to transfer the patient from the care of the EMTs and paramedics to the staff of the emergency department. In addition, some emergency departments divert ambulances to other hospitals when they are too busy to take on new patients. As a result, ambulances may not be able to go to the nearest hospital, which increases the amount of time spent in transit. Both these factors result in EMTs and paramedics spending more time with each patient, which means more workers are needed to meet demand.

Emergency Medical Technician positions are part of ambulance services, fire department based, rural EMS services, hospitals, clinics and EMS education.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Emergency Medical Technology Certificate:
http://www.rctc.edu/catalog/ge/EMERGMEDTECH.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The RCTC paramedic program has received accreditation by the Commission on the Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/icp/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Engineering

Career/Program Overview

RCTC offers one Associate in Science (A. S.) degree in Engineering with multiple transfer options. One option is designed specifically for students planning to transfer to another Minnesota State College or University (MnSCU) institution. Another option is designed for students transferring to the University of Minnesota – Twin Cities. Transfer to other institutions is also common. Course selection is especially important depending on the institution transferred to and also the area of engineering to be studied (electrical, chemical, mechanical, etc.).

Curriculum-at-a-Glance

Coursework for both articulated Associate Degree options includes Calculus I and II, Multivariable Calculus, Differential Equations and Linear Algebra, Classical Physics I and II, and a selection from various engineering courses including Statics, Dynamics, Deformable Body Mechanics, Circuits I and II, and Logic Design. General education requirements include courses in written and oral communications, history and social behavioral sciences, and arts, literature and philosophy.

RCTC has an active Engineering/Physics Club which builds equipment, puts on demonstration shows, and takes trips to universities and industrial labs. It is open to all RCTC students.

Program/Degree Options

RCTC offers one Associate in Science (A. S.) degree with multiple options. One option is designed specifically for transfer to Minnesota State College and University (MnSCU) institutions and a second option is designed specifically for transfer to the University of Minnesota – Twin Cities. Students can also transfer to other institutions with appropriate planning of courses.

Program Start Date(s)

Students can begin general education requirements any semester.

Career Opportunities/Information

The degree options are specifically designed for transfer into a bachelor's degree at either a MnSCU institution or the University of Minnesota – Twin Cities. Students may transfer to many other institutions with appropriate planning.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website:
http://www.roch.edu/dept/sci/engineering/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Environmental Science

Career/Program Overview

RCTC offers an Associate in Science (A.S.) degree in Environmental Science.

Curriculum-at-a-Glance

Primary coursework includes: Ecology, Biological Applications of GIS Technology, Environmental Science Internship, Survey of Life Forms, Zoology, Genetics, and Chemical Principles I & II. General Education requirements include courses in Plant Biology, Environmental Biology, Concepts of Biology, Fundamentals of Statistics, Introduction to Sociology, Ethics, Written and Oral Communication, and Critical Thinking.

Program/Degree Options

RCTC offers an Associate in Science (A.S.) degree in Environmental Science. It can be completed in two years. This program articulates with Winona State University, Bachelor of Science (B.S.) Degree in Biology (Environmental Science option).

Program Start Date(s)

Students can begin the program course requirements any semester. Some courses are offered once per year, some courses every semester, and some courses every other year. Careful planning and consideration of scheduling and prerequisite coursework (if applicable) is important. Working with an academic advisor or program faculty is recommended. Please contact Cory.Rubin@roch.edu or Jennifer.Rubin@roch.edu with questions about scheduling or planning your coursework.

Career Opportunities/Information

Graduates may seek employment opportunities as environmental science technicians, biological technicians, or conservation technicians.

A.S. degree career options include:*
   Environmental Science Technician (31.2%)
   Biological Technician (14.4%)

Upon completion of a bachelor's degree or beyond, career options may include:
B.S. degree career options include:*

Forester (4.9%), Soil/Plant Scientist (5.7%), Natural Resource Manager (13%), Wildlife Biologist (data not available)

An additional career path includes training toward a conservation officer, which could include a two-year program such as Environmental Science at RCTC, as well as law enforcement for Peace Officer Standards and Training (POST) license eligibility, which is also available at RCTC.

*Minnesota Department of Employment and Economic Development employment projection increases, 2006-2016, for Minnesota.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The Environmental Science program has an articulation agreement to serve as the first two years of a Bachelor's degree in Biology (Environmental Science option) offered at Winona State University (WSU).

RCTC also has an articulation with Pine Island Public Schools (PIPS), to earn credit at RCTC by successfully completing AP Environmental Science at PIPS.

For more information about these articulations: http://www.rctc.edu/program/es/courses.html
For additional information about RCTC articulations: http://www.rctc.edu/catalog/articulations/

Miscellaneous Information

In addition, RCTC has an Ecology Club that is associated with the Environmental Science program. The Club volunteers and coordinates service projects. It is open to all RCTC students.
http://www.rctc.edu/studentlife/EcologyClub.html

Additional Information

Program Website: http://www.rctc.edu/program/es/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Equine Science

Career/Program Overview

RCTC offers three major options in Equine Science Careers: Equine Business Management, Horse Husbandry and Riding/Training.

The purpose of the Horse Husbandry major is to prepare students for careers in stable management, horse breeding, and horse care. Students will have the skills to manage their own home business, work for other professionals or pursue advanced training. This degree involves an internship program.

The purpose of the Riding/Training major is to prepare students to work as horse trainers, riding instructors, and show coaches. Students will have the skills to manage their own business, work for other professionals or pursue advanced training. This degree involves an internship program.

The purpose of the Business Management Degree is to prepare students to start their own equine business, work for other equine professionals, or to transfer to a bachelor's degree program. Students will have the skills to manage and market their own equine business as well as provide care for a herd of horses.

Curriculum-at-a-Glance

Depending on the option selected coursework may include: Introduction to Equine Science, Equine Nutrition, Light Horse Management, Western Horsemanship I & II, Hunt Seat Equitation I & II, Colt Starting, Equine Anatomy and Physiology, and Equine Business Practices.

Program/Degree Options

RCTC offers four credential options in Equine Science. An Associate in Science is available in Equine Business Management. Both a diploma and an Associate in Applied Science option are available in Riding/Training and a certificate is offered in Horse Husbandry.

Program Start Date(s)

Students can enroll on a part-time or full-time basis. Some courses are prerequisites to advanced level coursework so preplanning is encouraged. Evening courses are available. Students are encouraged to start in the fall semester.

Career Opportunities/Information

According to the American Horse Council study released in 2005, the horse industry involves 4.6 million Americans, has a direct economic impact of $39 billion annually, and provides 460,000 full-time equivalent jobs. These numbers are likely growing and the industry is constantly looking for educated people to employ.

Many of the jobs in the horse industry are self-employment opportunities, especially training and teaching jobs. There are also many business owners who come to RCTC looking to hire graduates from the Equine Program. The opportunities in the horse industry include horse training, teaching riding lessons, grooming, stable management, saddle making, nutritional consulting, breeding farm management, research, and extension work.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Equine Science Horse Husbandry Certificate and Equine Science Riding/Training:
http://www.rctc.edu/catalog/ge/EQUINE.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

RCTC's Equine Science Business Management Associates degree is designed to transfer into the Bachelor of Science degree in Equine Science at the University of Minnesota Crookston.

Students may consider additional transfer options by working closely with a four-year institution of their choice.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/eqsc/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Graphic Design

Career/Program Overview

RCTC's Art + Design programs prepare students for opportunities as studio artists, photographers, digital artists, graphic designers, interactive designers, and web designers. The programs focus on artistic creation using traditional and electronic media. The degree programs consist of a liberal art core and offer programs of study in Studio Art, Graphic Design, Interaction Design. Certificate programs allow students to focus on an area of study including Digital Art, Mobile Application Development, Motion Graphics and Photography.

Curriculum-at-a-Glance

Depending on which degree or certificate option selected, coursework may include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Introduction to Digital Photography, Photographic Darkroom Processes, Intermediate Digital Photography, Studio LightingTechniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Art + Design Projects, Animation and 3D Modeling, Interactive Web Design I and II, and Motion Graphics I and II, Directed Studies, and Art Portfolio.

Program/Degree Options

RCTC's Art + Design programs offer several different areas of emphasis and degree options. These options include: Art, Associate in Fine Arts Degree Program; Graphic Design, Associate in Science Degree Program; Interaction Design (Web Design), Associate in Science Degree Program (Optionally completely online); Photography, Certificate Program; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, Certificate Program (Optionally completely online).

Program Start Date(s)

Programs can be started when courses start at the beginning of any semester. Some courses may be offered only once a year. Check the RCTC catalog for course availability by semester. Consult your academic advisor for your program of study.

Career Opportunities/Information

Studio Artists work in traditional art media including drawing, painting, ceramics, sculpture, printmaking, photography, and fibers. Most of a Studio Artist's day is spent creating artwork, arranging shows, and preparing work for exhibition. They create work to display and sell in galleries. Studio Artists can also work in galleries, art centers, and provide artwork to collections.

Graphic Designers combine text and graphics in order to communicate a message. Most of a Graphic Designer's day is spent researching needs, sketching solutions, or creating designs for logos, layouts, and environments. They provide solutions to their client's visual communication problems.

Interaction Designers / Web Designers combine text and graphics to create functional and compelling web sites for their clients. Most of a Web Designer's day is spent researching needs, testing the usability, developing design solutions, or implementing web sites. They provide clients with a functional web site that communicates the messages the client intends. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

Digital Artists create computer illustrations, photographic illustrations, and other graphic elements. Most of a Digital Artist's day is spent on developing a project, drawing pictures, or assembling artwork. They provide content to graphic designers, web designers, and interactive designers. Digital Artists also exhibit their work in galleries and museums.

Mobile Application Developers combine text, graphics and programming to create applications for smart phones, tablets and other mobile devices. Most of a Mobile Application Developer's day is spent researching, creating, animating, and programming interactive content for mobile devices. Mobile Application Developers often work for a design agency, a business or as freelance programmers.

Motion Graphic Artists work at creative firms, advertising agencies, in-house design departments, or as freelancers. Motion Graphic Artists combine text, graphics, animation, video, sound, and user input to create a rich environment and experience for the user. Most of a Motion Graphic Artist's day is spent researching, creating, animating, and developing interactive content. Motion Graphic Artists often work at a design agency, as a freelancer, or exhibit their work in galleries.

Photographers create lens-based images using both digital and analog materials. Most of a Photographer's day is spent creating images, networking, or managing a business. Photographers make images for clients, for publication, or for exhibition. Photographers are often self-employed or work as an in-house photographer for a business.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Motion Graphics Certificate; Digital Art Certificate and Photography Certificate:
http://www.rctc.edu/catalog/ge/MOTIONGRAPHICS.pdf
http://www.rctc.edu/catalog/ge/DIGITALART.pdf
http://www.rctc.edu/catalog/ge/PHOTOGRAPHY.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

An articulation agreement for Art, Associate in Fine Arts Degree Program has been established between RCTC and Minnesota State University, Mankato. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program have been established with Minnesota State University, Moorhead.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact

Group Fitness Instructor

Career/Program Overview

RCTC offers two options for a Group Fitness Instructor Certification. The Diploma program is a 30 credit degree while the Certificate is a 20 credit program. This program will provide students with the tools they need to understand the concepts of fitness, teaching fitness in a class setting, and applying these organizational and specialized skills to the type of fitness area that they wish to concentrate their expertise in. A variety of fitness certifications are available and this exposure allows students to explore the many possibilities available.

Curriculum-at-a-Glance

General core coursework will include, Methods of Group Fitness, Sport Nutrition For Performance, Sport Psychology, Prevention and Care of Athletic Injuries, Lifetime Fitness, CPR/AED training and an internship. Elective options allow students to choose from course work in the areas of; Essentials of Strength and Conditioning, Essentials of Personal Training, Recreation Program Leader, Body Toning, Strength Training for Men and Women, Boot Camp, Step Aerobics, Yoga, Tai Chi and PT/GF Exam Certification prep.

Program/Degree Options

Group Fitness Instructor Diploma – 30 credits
        MNTC – Science options – 4 credits
        Professional Core – 18 credits
        Electives – 8 credits

Group Fitness Instructor Certificate – 20 credits
        MNTC – Science options – 4 credits
        Professional Core – 9 credits
        Electives – 7 credits

Related Field Programs
        Sport Management
        Coaching
        Personal Trainer
        * all have Certificate and Diploma options

Program Start Date(s)

Students may begin coursework any semester. Some courses are not offered every semester, so students are encouraged to meet with the program advisor to plan their coursework accordingly.

Career Opportunities/Information

RCTC's Group Fitness Instructor program will prepare students for working in class settings to lead groups of clients/students in a variety of fitness based activities. This coursework will expose student to the resources and professional networks that they will require to stay current in their profession over the length of their career. Group Fitness Instructors are sought by a variety of outlets in almost every community in our nation as programs offered through recreational venues, community education, corporate fitness programs, and public and private fitness club businesses. Group Fitness Instructors can implement programs for persons of all ages to meet all fitness needs. This program will enable individuals to start with a solid knowledge base and a nationally recognized certification to begin their career.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information: http://www.rctc.edu/catalog/ge/COACHING-SPORTMGMT.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by the Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

Students are exposed to the many certification options within this field and are trained and coached to succeed with the area they choose to certify with. Some options include American Council on Exercise -ACE, Aerobics and Fitness Association – AFFA, National Association for Fitness Certification – NAFC, National Exercise Trainers Association – NETA. American Sports and Fitness – ASF, American College of Sports Medicine – ACSM, National Academy of Sports Medicine – NASM.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/sports/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

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Health Information Management Careers

Career/Program Overview

RCTC offers three program options related to Health Information Management careers. These include an Associate in Applied Science degree in Health Information Technology, a Coding Diploma, and a Healthcare Informatics Certificate.

Health Information Technicians analyze, secure, and maintain patient health information. Other duties include coding diagnoses, processing reimbursements, managing release of medical information, maintaining quality assurance, and protecting patient data privacy.

Coders are specifically trained in the coding of medical/health records. By assigning the proper codes to diagnoses and procedures, accurate financial reimbursement may be made by insurance companies and government agencies.

Healthcare Informatics graduates are trained in the noncoding electronic aspects of health information. Specifically, these skills include archiving, document scanning, data management, release of information, record completion, accreditation compliance, and quality assurance.

Curriculum-at-a-Glance

Some of the core courses required to complete the Health Information Technician degree include the following: Medical Terminology, Anatomy and Physiology, Pathophysiology, Pharmacology, Microcomputer Applications, Coding and Reimbursement, Supervision of Health Information, Computerized Health Information, Health Record Systems, Legal Aspects of Health Information, Quality Analysis and Health Statistics, and Internships.

Program/Degree Options

RCTC offers a Coding Diploma, a Healthcare Informatics Certificate and the Health Information Technology Associate in applied Science degree. The certificate, the diploma, and the A.A.S. degree can all be completed entirely online.

Program Start Date(s)

Students can start coursework any semester. All courses are offered Fall and Spring semester; there are limited course offerings in the summer.

Career Opportunities/Information

Health Information Technology graduates may find work in quality assurance, computer information services, tumor registries, or release of medical information. Some technicians are responsible for coding diagnoses and procedures for reimbursement while other technicians concentrate in patient data privacy rights and other ethical, legal and regulatory requirements.

According to the Bureau of Labor Statistics, employment of health information management professionals is expected to grow much faster than the average (increase of 27% or higher) for all occupations through 2014. Moreover, competitive salaries also await graduates; in fact, new graduates with an associate's degree can earn between $30,000 and $34,000 annually. With advanced experience or a bachelor's degree, salaries in the $40,000 - $75,000 range are possible.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information:
http://www.rctc.edu/catalog/ge/CODINGSPEC.pdf
http://www.rctc.edu/catalog/ge/HLTHCAREINFOMATICS.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The HIT program is also accredited as a quality online program by NCA.

The RCTC Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) in association with the American Health Information Management Association (AHIMA).

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/hit/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

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Health Unit Coordinator

Career/Program Overview

The Health Unit Coordinator major is designed to prepare students for a career in a health care facility. The HealthUnit Coordinator is a non-clinical member of the health care team responsible for performing duties related to scheduling medical appointments, monitoring and ordering supplies and equipment needed for patient care, transcribing physician orders, and maintaining a professional level of communication with clients, visitors and staff. Employment may be found in hospitals, nursing homes, clinics and other health care facilities.

Curriculum-at-a-Glance

Coursework involves introductory level courses in medications, and medical terminology. Health Unit Coordinator specific job related duties and expectations will be the focus of Introduction to Health Unit Coordinating, Station Procedures I and II, and Communications. General education courses include English, keyboarding and basic computer. An eight-week internship at a local healthcare facility provides students with an opportunity for application and guided practice of the skills they have acquired in the classroom.

Program/Degree Options

Upon completion of RCTC's Health Unit Coordinator program, graduates earn a Certificate. The program is 27 credits in length.

Program Start Date(s)

Health Unit Coordinator courses are offered both spring and fall semesters. Students may start the HUC program either semester. Full-time and part-time enrollment options are available. A full-time student would be able to complete the program in two semesters.

Career Opportunities/Information

Career opportunities exist with hospitals, clinics, nursing homes, and a variety of other medical offices that utilize clerical support. With further education and work experience supervisory positions are often available typically in non-clinical areas.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Health Unit Coordinator:
http://www.rctc.edu/catalog/ge/HLTHUNITCOORD.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/huc/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Healthcare Informatics

Career/Program Overview

RCTC offers three program options related to Health Information Management careers. These include an Associate in Applied Science degree in Health Information Technology, a Coding Diploma, and a Healthcare Informatics Certificate.

Health Information Technicians analyze, secure, and maintain patient health information. Other duties include coding diagnoses, processing reimbursements, managing release of medical information, maintaining quality assurance, and protecting patient data privacy.

Coders are specifically trained in the coding of medical/health records. By assigning the proper codes to diagnoses and procedures, accurate financial reimbursement may be made by insurance companies and government agencies.

Healthcare Informatics graduates are trained in the noncoding electronic aspects of health information. Specifically, these skills include archiving, document scanning, data management, release of information, record completion, accreditation compliance, and quality assurance.

Curriculum-at-a-Glance

Some of the core courses required to complete the Health Information Technician degree include the following: Medical Terminology, Anatomy and Physiology, Pathophysiology, Pharmacology, Microcomputer Applications, Coding and Reimbursement, Supervision of Health Information, Computerized Health Information, Health Record Systems, Legal Aspects of Health Information, Quality Analysis and Health Statistics, and Internships.

Program/Degree Options

RCTC offers a Coding Diploma, a Healthcare Informatics Certificate and the Health Information Technology Associate in applied Science degree. The certificate, the diploma, and the A.A.S. degree can all be completed entirely online.

Program Start Date(s)

Students can start coursework any semester. All courses are offered Fall and Spring semester; there are limited course offerings in the summer.

Career Opportunities/Information

Health Information Technology graduates may find work in quality assurance, computer information services, tumor registries, or release of medical information. Some technicians are responsible for coding diagnoses and procedures for reimbursement while other technicians concentrate in patient data privacy rights and other ethical, legal and regulatory requirements.

According to the Bureau of Labor Statistics, employment of health information management professionals is expected to grow much faster than the average (increase of 27% or higher) for all occupations through 2014. Moreover, competitive salaries also await graduates; in fact, new graduates with an associate's degree can earn between $30,000 and $34,000 annually. With advanced experience or a bachelor's degree, salaries in the $40,000 - $75,000 range are possible.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information: http://www.rctc.edu/catalog/ge/HLTHCAREINFOMATICS.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The HIT program is also accredited as a quality online program by NCA.

The RCTC Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) in association with the American Health Information Management Association (AHIMA).

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/hit/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Histology Technician

Career/Program Overview

RCTC's Histology Technician program was recently developed in collaboration with Mayo Clinic, Rochester. Histology Technicians specialize in the techniques of preparing body tissue samples for pathologists to examine under the microscope. Skills and knowledge in the use of precision equipment and numerous special techniques enable histology technicians to accurately demonstrate the morphology of tissue specimens. Proper preparation of tissue samples is critical in optimizing the ability of pathologists to microscopically visualize tissue structure and tumor identification for patient care.

Curriculum-at-a-Glance

General education coursework and Introduction to Medical Terminology for a total of 36 credits are taken at RCTC. Coursework also includes 24 credits of Histology core courses taken through Mayo School of Health Sciences.

Program/Degree Options

RCTC offers an Associate of Science degree in Histology Technician.

Program Start Date(s)

Students can begin general education requirements any semester. Some Histology Technician courses are not offered every semester so students are encouraged to meet with program advisors to plan ahead.

This program is jointly offered by RCTC and Mayo Clinic. Students apply to both RCTC and the Mayo School of Health Sciences and are admitted through the Mayo School of Health Sciences. Program applications can be obtained from Mayo School of Health Sciences.

Career Opportunities/Information

Histology technicians work in routine and specialized clinical labs, as well as in research settings of healthcare organizations. Currently, the career outlook for histology technicians is very strong.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

Mayo School of Health Sciences Histology Technician Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

All courses are offered through RCTC and MSHS.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website:
http://www.mayo.edu/mshs/histology-career.html
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Horticulture Technology

Career/Program Overview

The RCTC Horticulture Technology program offers training for environmental careers in the green industry. Working with plants and people in an outdoor environment offers exciting and rewarding career opportunities. Graduates will qualify for jobs in:

> Greenhouse Management
> Landscape Maintenance
> Golf Course Turf Management
> Tree Care and Urban Forestry
> Landscape Design and Install
> Floral Design
> Retail and Wholesale Sales

RCTC Horticulture technology provides an excellent balance of classroom and hands–on training so graduates are ready to meet the needs of the green industry. Combining traditional on site teaching methods with on-line Hybrid classes allows students to work or commute while in the program. We actively involve industry professionals in developing our curriculum to insure that we meet their needs for employees.

Curriculum-at-a-Glance

Depending on the option selected coursework may include: Plant Materials I and II, Soil Science, Landscape Design, Golf Course Field Operations, Plant Propagation, Greenhouse Crop Production, Introduction to Turfgrass Management, Floral Design, Arboriculture, Urban Forestry and Integrated Plant/Pest Management.

Program/Degree Options

Horticulture Technology AAS, 60 credits
Floriculture/Garden Center Diploma, 52 credits
Landscape/Golf Course/Grounds Maintenance Diploma, 52 credits
Horticulture Science AS, 60 credits

Program Start Date(s)

Students can enroll on a part-time or full-time basis. Some courses are prerequisites to advanced level coursework so preplanning is encouraged.

Career Opportunities/Information

The Horticulture Technology curriculum provides educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in a horticulture career related to landscape management, turf management, urban forestry, greenhouse crop production, and related occupations. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of specific technical knowledge and skills and a firm foundation in the science of horticulture. Students may consider transfer options by working closely with a four-year institution of their choice.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Horticulture - Floriculture/Garden Center Technology and Horticulture - Landscape, Golf Course and Grounds Maintenance Diploma:
http://www.rctc.edu/catalog/ge/HORT-FLORICULTURE.pdf
http://www.rctc.edu/catalog/ge/HORT-LANDSCAP.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

RCTC's Horticulture Science Associate in Science degree has been established to transfer into the Environmental Horticulture bachelor's degree program at the University of Minnesota.

In 2003 RCTC's program was selected as Minnesota's Outstanding Post Secondary/Adult Agricultural Education program.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/hort/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Human Services

Career/Program Overview

RCTC's Human Services major is designed to prepare students for a variety of entry-level careers in human services areas. Graduates of the program will provide health care, treatment, rehabilitation, and behavioral direction for individuals or groups of clients. The major employment areas are in the fields of mental health, disabilities, and addiction.

The program provides individuals with practical training in mental health, chemical health, and disabilities fields. Individuals may also enter the program to continue their education, to gain knowledge of new developments and techniques, or to obtain career advancement. As Associate in Science degree can be earned upon completion of the Human Services professional curriculum and the required general education courses.

Curriculum-at-a-Glance

Depending on the option selected, coursework may include: Medication Administration for Unlicensed Personnel, Introduction to Human Services, Health Issues, Therapeutic Techniques, Mental Health Disorders for HST Workers, Chemical Dependency Theory, Developmental Disability Theory and Nursing Assistant Theory and Clinical. Students obtain direct care skills through three field experience rotations.

Program/Degree Options

RCTC offers five program options in the field of Human Services. Students may complete a 36-credit Diploma as a Human Services Technician or a 60-credit Associate in Science Degree as a Human Services Specialist. The three certificate options consist of 11 credits each: Chemical Health Assistant, Developmental Disabilities Assistant, and Mental Health Assistant.

Program Start Date(s)

Students can enroll on a part-time or full-time basis and may begin the program either fall or spring semester.

Career Opportunities/Information

Wide arrays of career opportunities exist in the mental health, disabilities and addiction fields. A number of working environments are available and include such settings as: halfway houses, group homes, public schools, community programs, residential settings, treatment programs and day programs.
Job titles and descriptions vary depending upon the employment setting but include such titles as case coordinator, residential manager, direct care staff, human services technician and case aide.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Human Services Technician Diploma:
http://www.rctc.edu/catalog/ge/HUMSERV.pdf

Articulations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The Associate in Science Human Services articulates with Winona State University's Bachelor in Social Work. Students need to contact WSU for the specific admission requirements for the Social Work Program.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/hs/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Individualized Studies

Career/Program Overview

RCTC offers an Associate in Science (A.S.) degree in Individualized Studies. This degree option is designed for the purpose of transfer to a bachelor's degree at another college or university; it serves students who cannot find existing programs and degrees that serve their educational needs.

Curriculum-at-a-Glance

Coursework will include completing 30 credits from the following Minnesota Transfer Curriculum Goals: Written and Oral Communications, Critical Thinking, Natural Sciences, Mathematics/Logical Reasoning, History and the Social and Behavioral Sciences, and Humanities – The Arts, Literature, and Philosophy. RCTC's Professional Studies degree also requires credits from the following areas: Human Diversity, Ethic and Civic Responsibility, Global Perspective, and People and the Environment. Students use the remaining credits to design an academic experience that matches their individual goals.

Program/Degree Options

RCTC's Associate in Science degree is 60 credits in length comprising 30 credits of General Education to meet the Minnesota Transfer Curriculum Requirements, 1 credit Career Exploration (or a counselor waiver), and 29-30 elective credits. Before declaring this program as their major, students must meet with an RCTC advisor or counselor to clarify and approve their employment goals or to develop and approve a transfer plan. Students are urged to connect with their transfer institution as early as possible to insure the A.S. in Individualized Studies has a design that best insures all credits will transfer.

Program Start Date(s)

Students can start coursework any semester. Some courses are not offered every semester so students are encouraged to meet with an advisor or counselor to plan appropriately.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Intensive Care Paramedic

Career/Program Overview

As the most highly trained pre-hospital emergency care provider in the EMS field, the paramedic accepts the challenging responsibility for patient care. The willingness to accept this challenge and direct others to carry out the plan is the first step in becoming a paramedic. Paramedicine is a relatively young field with a wide range of employment opportunities including ambulance services, fire departments, police departments, hospitals, helicopter services, and educational institutions.

Curriculum-at-a-Glance

Program-related courses may include: Introduction to Paramedicine, EMS Skills, Pharmacology, Trauma Care, Cardiac Care, Pathophysiology in EMS, EMS Advanced Skills, Special Populations, Ambulance Clinical, Critical Care Clinical and Paramedic Preparation.

Program/Degree Options

RCTC offers both a 40-credit diploma and a 75-credit Associate in Science degree as an Intensive Care Paramedic. An Advanced Standing option is also available to working paramedics who are now interested in completing their Associate of Science Degree.

Program Start Date(s)

Students can begin general education requirements any semester. A second, separate process of applying to the Intensive Care Paramedic Diploma and/or Associate degree programs is also required. Applicants must be currently state certified and nationally registered as an EMT-Basic or Intermediate and have a minimum of 50 encounters as a primary care giver in the pre-hospital setting or completion of EMT 1210.

Additional admissions requirements include: current CPR certification, documentation of EMS experience, a recommendation from an ambulance director or medical director and academic prerequisites in English and mathematics. Admitted students are required to submit health information and pass a criminal background check.

Career Opportunities/Information

Employment of emergency medical technicians and paramedics is expected to grow 9 percent between 2008 and 2018, which is about as fast as the average for all occupations. Growth in this occupation is due in large part to increasing call volume due to aging population. As a large segment of the population—aging members of the baby boom generation—becomes more likely to have medical emergencies, demand will increase for EMTs and paramedics. In addition, the time that EMTs and paramedics must spend with each patient is increasing as emergency departments across the country are experiencing overcrowding. As a result, when an ambulance arrives, it takes longer to transfer the patient from the care of the EMTs and paramedics to the staff of the emergency department. In addition, some emergency departments divert ambulances to other hospitals when they are too busy to take on new patients. As a result, ambulances may not be able to go to the nearest hospital, which increases the amount of time spent in transit. Both these factors result in EMTs and paramedics spending more time with each patient, which means more workers are needed to meet demand.

Intensive Care Paramedic positions are part of ALS ambulances, fire department based ALS, rural EMS services, hospitals, EMS education, fixed wing and helicopter services.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The RCTC paramedic program has received accreditation by the Commission on the Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP).

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/icp/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Interaction Design

Career/Program Overview

RCTC's Art + Design programs prepare students for opportunities as studio artists, photographers, digital artists, graphic designers, interactive designers, and web designers. The programs focus on artistic creation using traditional and electronic media. The degree programs consist of a liberal art core and offer programs of study in Studio Art, Graphic Design, Interaction Design. Certificate programs allow students to focus on an area of study including Digital Art, Mobile Application Development, Motion Graphics and Photography.

Curriculum-at-a-Glance

Depending on which degree or certificate option selected, coursework may include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Introduction to Digital Photography, Photographic Darkroom Processes, Intermediate Digital Photography, Studio LightingTechniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Art + Design Projects, Animation and 3D Modeling, Interactive Web Design I and II, and Motion Graphics I and II, Directed Studies, and Art Portfolio.

Program/Degree Options

RCTC's Art + Design programs offer several different areas of emphasis and degree options. These options include: Art, Associate in Fine Arts Degree Program; Graphic Design, Associate in Science Degree Program; Interaction Design (Web Design), Associate in Science Degree Program (Optionally completely online); Photography, Certificate Program; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, Certificate Program (Optionally completely online).

Program Start Date(s)

Programs can be started when courses start at the beginning of any semester. Some courses may be offered only once a year. Check the RCTC catalog for course availability by semester. Consult your academic advisor for your program of study.

Career Opportunities/Information

Studio Artists work in traditional art media including drawing, painting, ceramics, sculpture, printmaking, photography, and fibers. Most of a Studio Artist's day is spent creating artwork, arranging shows, and preparing work for exhibition. They create work to display and sell in galleries. Studio Artists can also work in galleries, art centers, and provide artwork to collections.

Graphic Designers combine text and graphics in order to communicate a message. Most of a Graphic Designer's day is spent researching needs, sketching solutions, or creating designs for logos, layouts, and environments. They provide solutions to their client's visual communication problems.

Interaction Designers / Web Designers combine text and graphics to create functional and compelling web sites for their clients. Most of a Web Designer's day is spent researching needs, testing the usability, developing design solutions, or implementing web sites. They provide clients with a functional web site that communicates the messages the client intends. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

Digital Artists create computer illustrations, photographic illustrations, and other graphic elements. Most of a Digital Artist's day is spent on developing a project, drawing pictures, or assembling artwork. They provide content to graphic designers, web designers, and interactive designers. Digital Artists also exhibit their work in galleries and museums.

Mobile Application Developers combine text, graphics and programming to create applications for smart phones, tablets and other mobile devices. Most of a Mobile Application Developer's day is spent researching, creating, animating, and programming interactive content for mobile devices. Mobile Application Developers often work for a design agency, a business or as freelance programmers.

Motion Graphic Artists work at creative firms, advertising agencies, in-house design departments, or as freelancers. Motion Graphic Artists combine text, graphics, animation, video, sound, and user input to create a rich environment and experience for the user. Most of a Motion Graphic Artist's day is spent researching, creating, animating, and developing interactive content. Motion Graphic Artists often work at a design agency, as a freelancer, or exhibit their work in galleries.

Photographers create lens-based images using both digital and analog materials. Most of a Photographer's day is spent creating images, networking, or managing a business. Photographers make images for clients, for publication, or for exhibition. Photographers are often self-employed or work as an in-house photographer for a business.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Digital Art Certificate. Mobile Application Development Certificate, Motion Graphics Certificate and Photography Certificate:
http://www.rctc.edu/catalog/ge/DIGITALART.pdf
http://www.rctc.edu/catalog/ge/MOBILEAPP.pdf
http://www.rctc.edu/catalog/ge/MOTIONGRAPHICS.pdf
http://www.rctc.edu/catalog/ge/PHOTOGRAPHY.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

An articulation agreement for Art, Associate in Fine Arts Degree Program has been established between RCTC and Minnesota State University, Mankato. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program have been established with Minnesota State University, Moorhead.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact

Laboratory Science

Career/Program Overview

RCTC offers an Associate of Science degree program in Laboratory Science. Upon completion of the Associate Degree at RCTC, students can transfer and complete a Bachelor of Science degree in Clinical Laboratory Science throughout the University of North Dakota or the University of Minnesota-Rochester.

Curriculum-at-a-Glance

Professional Core requirements include: Survey of Life Forms, Survey of Organic Chemistry, Anatomy and Physiology I and II, Microbiology, and Introduction to Medical Terminology. General education requirements include courses in: oral and technical communications, biology, chemistry, college algebra, psychology, sociology and ethics.

Program/Degree Options

RCTC's Associate of Science in Laboratory Science is 60 credits and articulates with the Bachelor of Science degree in Clinical Laboratory Science at the University of North Dakota. Students can also transfer to the University of Minnesota-Rochester to complete a Bachelor of Science in Clinical Laboratory Science.

Program Start Date(s)

Students can begin general education requirements any semester.

Career Opportunities/Information

This degree is specifically designed for transfer into a Bachelor's degree program.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Plan: http://www.rctc.edu/catalog/programs/
Program Website: http://www.rctc.edu/program/laboratory-science/index.cfm
More Information: http://www.rctc.edu/contact/

Law Enforcement

Career/Program Overview

The Law Enforcement program is designed to satisfy all pre-license requirements of the Minnesota Board of Peace Officer Standards and Training (POST). Graduates are prepared for careers as police officers, deputy sheriff's, corrections officers, security and other law enforcement positions. An additional career path includes training toward a conservation officer, which would include a two-year program such as Environmental Science at RCTC.

Curriculum-at-a-Glance

Program-related courses include: Introduction to Law Enforcement, Introduction to Criminal Investigations, Basic Firearms, Police Report Writing, Minnesota Criminal Statutes, Minnesota Traffic Statutes, Human Behavior for Law Enforcement, Criminal Procedure, Juvenile Law & Procedures, Practical Exercises for Law Enforcement and First Responder training.

Program/Degree Options

RCTC offers an Associate in Applied Science degree, an Associate in Science degree, and a certificate option in Law Enforcement.

Program Start Date(s)

Students can begin general education requirements any semester. Program-related or professional courses are sequential, thus, preplanning with the program advisor is strongly encouraged.

The skills program starts at the beginning of the spring semester. Students interested in attending need to register fo these courses in October. Students will also need to pass a physical fitness test to attend defensive tactics. http://www.rctc.edu/program/lawe/Coopertest.htm.

Career Opportunities/Information

The Associate in Science Law Enforcement degree satisfies two goals. The first is that the program prepares you for a career in law enforcement which may include a position with the police, sheriff's office, state patrol or conservation office. Secondly, the program will provide you with excellent transfer opportunities should a student decide to pursue a bachelor's degree.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Law Enforcement Certificate: http://www.rctc.edu/catalog/ge/LAWENF.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

RCTC's Law Enforcement program is accredited by the Minnesota Peace Officers Standards and Training Board.

RCTC's Law Enforcement program has an articulation agreement with Minnesota State University Mankato.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/lawe/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Legal Assistant

Career/Program Overview

RCTC offers various degree options as an Administrative Assistant, a Customer Service Administrative/Specialist and a certificate program as a Software Application Specialist. Administrative Assistant: Legal Emphasis Certificate opens the door to working in an environment that has a legal focus.

Curriculum-at-a-Glance

An Administrative Assistant with Legal Emphasis will have coursework that focuses on the legal environment of business, business communications, ethics, transcription skills, and word processing skills.

Program/Degree Options

- Administrative Assistant Refresher Certificate (20 credits)
- Administrative Assistant Certificate (27 credits)
- Administrative Assistant Diploma (37 credits)
- Administrative Assistant Associate in Applied Science (61 credits)
- Administrative Assistant Associate in Science (60-credits)
- Customer Service Administrative Specialist Diploma (33 credits)
- Customer Service Office Assistant Certificate (16 credits)
- Software Applications Specialist Certificate (16 credits)
- **Administrative Assistant: Legal Emphasis Certificate (23 credits)**

Program Start Date(s)

Students can start coursework any semester. Full-time and part-time schedules are available. All courses in the Administrative Assistant A.S., A.A.S., Administrative Assistant, Customer Service Diploma, Administrative Assistant including Legal and Customer Service Certificate options are available online. Many courses within each of these programs are also offered on campus, too.

Career Opportunities/Information

Job opportunities for Administrative Assistant: Legal Emphasis may be available in large and small law practices, government offices and legal departments in a medical or business organization.

Salaries will vary in Minnesota depending upon specialty skills. Range – $12.25 to $23.06.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Administrative Assistant Legal Emphasis Certificate: http://www.rctc.edu/catalog/ge/ADMINASST-CERT-LEGAL.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/btec/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Liberal Arts and Sciences

Career/Program Overview

RCTC offers an Associate in Arts (A.A.) degree in Liberal Arts and Sciences. This degree option is designed for the purpose of transfer to a bachelor's degree at another college or university.

Curriculum-at-a-Glance

Coursework will include completing 40 credits from the following Minnesota Transfer Curriculum Goals: Written and Oral Communications, Critical Thinking, Natural Sciences, Mathematics/Logical Reasoning, History and the Social and Behavioral Sciences, and Humanities – The Arts, Literature, and Philosophy. RCTC's Liberal Arts and Sciences degree also requires credits from the following areas: Human Diversity, Ethic and Civic Responsibility, Global Perspective, and People and the Environment.

Program/Degree Options

RCTC's Associate in Arts degree is 60 credits in length comprising 40 credits of General Education meeting the Minnesota Transfer Curriculum Requirements. There are also 3 credits of health and physical education and 17 elective credits included in the 60 credit total.

Program Start Date(s)

Students can start coursework any semester. Some courses are not offered every semester so students are encouraged to meet with an advisor or counselor to plan appropriately. This degree is also available entirely online.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/liberal-arts/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Mass Communication

Career/Program Overview

The Mass Communications program prepares students for careers in journalism, radio, television, or video broadcasting, advertising, public relations or new media technology. RCTC offers hands-on training and education for students with state of the art computer labs and production facilities. Students may seek career opportunities in various mass communications fields or further education and training at a four-year college or university.

Mass communication is the study of various means by which individuals and organizations relay information to large audiences through mass media (print, radio, television or internet). With the internet's increased role in delivering news and information, mass communication studies have begun to focus on the convergence and integration of publishing, broadcast and digital communication.

Areas of Mass Communication study may include: Advertising, Radio or TV Broadcasting, Film, Newspapers, Magazines, Books, the recording industry, Journalism, the Internet and Public Relations. Students receive instruction and valuable hands-on experience through class and extracurricular opportunities.

Program Outcomes:

Students completing the Mass Communication Program will be able to:
- Appreciate the history of media communication.
- Understand media's impact on policy, institutions and culture.
- Develop competence in the critique of communication practices.
- Understand the legal and ethical issues associated with media use and production.
- Demonstrate how to put their knowledge into practice in various forms of media production.

Curriculum-at-a-Glance

Courses available in the Mass Communications Associate in Science (A.S.) degree program include: Advertising, Public Relations, Principles of Broadcasting, Radio Production, Video Production, Television Production, Beginning Newswriting, New Media Layout and Design, Graphic Design, Interactive Web Design, Presentation Graphics, Mass Communication Law/Ethics, Marketing and Salesmanship.

Program/Degree Options

RCTC offers a Mass Communications Associate in Science degree option. This 60 credit program is designed as a two year degree option.

Program Start Date(s)

Students can start coursework any semester. Some courses are not offered every semester so students are encouraged to meet with program advisors to plan ahead.

Career Opportunities/Information

Mass Communication graduates work in a variety of fields in traditional news media and publishing, advertising, and public relations as well as new emerging media markets. Students are already finding employment and internship with local media including KAAL-TV and the Rochester Post Bulletin newspaper. Careers in the fields of media are numerous and the overall employment outlook is very good. The U.S. Department of Labor's Bureau of Labor Statistics projects that the number of jobs in several mass communication industries (Publishing, Broadcasting, Telecommunications, and Motion Picture and Sound Recording) are projected to increase by 14% from 2010-2020. (Bureau of Labor Statistics, Occupational Handbook, March 2012.) New technological advances will create new ways to communicate using mass media. This will increase demand for people who can create content artistically and technically for a variety of media forms. The successful media employee of the future will be one is proficient in a variety of Mass Communication specialties including writing, broadcasting, videography, photography, audio production and the internet.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/masscomm/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Medical Secretary

Career/Program Overview

RCTC's medical transcription and medical secretary programs stress extensive building of medical terminology and a highly developed skill in medical transcription as well as general office skills and technology training. Medical letters to referring physicians along with reports in the medical record regarding the patients' examinations, operations, and tests are emphasized. Students will learn how diseases affect the body and which drugs and other treatments are used to treat illnesses. Students will be trained for transcriptionist and office support positions in medical offices, clinics, hospitals, insurance companies, and firms which provide medical supplies and equipment.

Curriculum-at-a-Glance

Depending on the program/degree option selected, coursework may include: Human Relations in Organizations, Introduction to Medical Terminology, Medical Transcription I and II, Business Communications, Medical Office Procedures, Pathophysiology, and Microcomputer Business Applications.

Program/Degree Options

RCTC offers four degree options in the medical secretary field. These include a 21-credit Medical Transcription Certificate, a 33-credit Medical Transcriptionist Diploma, a 60-credit Medical Secretary Associate in Applied Science degree, and a 60-credit Associate in Science degree.

Program Start Date(s)

Courses are available primarily fall and spring semesters. Selected courses may be offered in the summer session. Students can enroll on a part-time or full-time basis. Part-time enrollment is possible any semester. A fall start date is advantageous for course sequencing. Many courses are available by online instruction.

Career Opportunities/Information

The Internet System for Education and Employment Knowledge www.iseek.org states that the average medical secretarial wages in Minnesota range from $14.01 to $22.71 per hour. In the United States, the average medical secretarial wage is $10.45 to $22.14 per hour.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Medical Transcription Certificate and Medical Transcriptionist Diploma: http://www.rctc.edu/catalog/ge/MEDTRANSCRIPTION.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/med/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Medical Transcription

Career/Program Overview

RCTC's medical transcription and medical secretary programs stress extensive building of medical terminology and a highly developed skill in medical transcription as well as general office skills and technology training. Medical letters to referring physicians along with reports in the medical record regarding the patients' examinations, operations, and tests are emphasized. Students will learn how diseases affect the body and which drugs and other treatments are used to treat illnesses. Students will be trained for transcriptionist and office support positions in medical offices, clinics, hospitals, insurance companies, and firms which provide medical supplies and equipment.

Curriculum-at-a-Glance

Depending on the program/degree option selected, coursework may include: Human Relations in Organizations, Introduction to Medical Terminology, Medical Transcription I and II, Business Communications, Medical Office Procedures, Pathophysiology, and Microcomputer Business Applications.

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For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/med/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Mobile Application Development

Career/Program Overview

RCTC's Art + Design programs prepare students for opportunities as studio artists, photographers, digital artists, graphic designers, interactive designers, and web designers. The programs focus on artistic creation using traditional and electronic media. The degree programs consist of a liberal art core and offer programs of study in Studio Art, Graphic Design, Interaction Design. Certificate programs allow students to focus on an area of study including Digital Art, Mobile Application Development, Motion Graphics and Photography.

Curriculum-at-a-Glance

Depending on which degree or certificate option selected, coursework may include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Introduction to Digital Photography, Photographic Darkroom Processes, Intermediate Digital Photography, Studio LightingTechniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Art + Design Projects, Animation and 3D Modeling, Interactive Web Design I and II, and Motion Graphics I and II, Directed Studies, and Art Portfolio.

Program/Degree Options

RCTC's Art + Design programs offer several different areas of emphasis and degree options. These options include: Art, Associate in Fine Arts Degree Program; Graphic Design, Associate in Science Degree Program; Interaction Design (Web Design), Associate in Science Degree Program (Optionally completely online); Photography, Certificate Program; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, Certificate Program (Optionally completely online).

Program Start Date(s)

Programs can be started when courses start at the beginning of any semester. Some courses may be offered only once a year. Check the RCTC catalog for course availability by semester. Consult your academic advisor for your program of study.

Career Opportunities/Information

Studio Artists work in traditional art media including drawing, painting, ceramics, sculpture, printmaking, photography, and fibers. Most of a Studio Artist's day is spent creating artwork, arranging shows, and preparing work for exhibition. They create work to display and sell in galleries. Studio Artists can also work in galleries, art centers, and provide artwork to collections.

Graphic Designers combine text and graphics in order to communicate a message. Most of a Graphic Designer's day is spent researching needs, sketching solutions, or creating designs for logos, layouts, and environments. They provide solutions to their client's visual communication problems.

Interaction Designers / Web Designers combine text and graphics to create functional and compelling web sites for their clients. Most of a Web Designer's day is spent researching needs, testing the usability, developing design solutions, or implementing web sites. They provide clients with a functional web site that communicates the messages the client intends. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

Digital Artists create computer illustrations, photographic illustrations, and other graphic elements. Most of a Digital Artist's day is spent on developing a project, drawing pictures, or assembling artwork. They provide content to graphic designers, web designers, and interactive designers. Digital Artists also exhibit their work in galleries and museums.

Mobile Application Developers combine text, graphics and programming to create applications for smart phones, tablets and other mobile devices. Most of a Mobile Application Developer's day is spent researching, creating, animating, and programming interactive content for mobile devices. Mobile Application Developers often work for a design agency, a business or as freelance programmers.

Motion Graphic Artists work at creative firms, advertising agencies, in-house design departments, or as freelancers. Motion Graphic Artists combine text, graphics, animation, video, sound, and user input to create a rich environment and experience for the user. Most of a Motion Graphic Artist's day is spent researching, creating, animating, and developing interactive content. Motion Graphic Artists often work at a design agency, as a freelancer, or exhibit their work in galleries.

Photographers create lens-based images using both digital and analog materials. Most of a Photographer's day is spent creating images, networking, or managing a business. Photographers make images for clients, for publication, or for exhibition. Photographers are often self-employed or work as an in-house photographer for a business.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Motion Graphics Certificate; Digital Art Certificate and Photography Certificate:
http://www.rctc.edu/catalog/ge/MOTIONGRAPHICS.pdf
http://www.rctc.edu/catalog/ge/DIGITALART.pdf
http://www.rctc.edu/catalog/ge/PHOTOGRAPHY.pdf
http://www.rctc.edu/catalog/ge/MOBILEAPP.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

An articulation agreement for Art, Associate in Fine Arts Degree Program has been established between RCTC and Minnesota State University, Mankato. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program have been established with Minnesota State University, Moorhead.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact

Motion Graphics

Career/Program Overview

RCTC's Art + Design programs prepare students for opportunities as studio artists, photographers, digital artists, graphic designers, interactive designers, and web designers. The programs focus on artistic creation using traditional and electronic media. The degree programs consist of a liberal art core and offer programs of study in Studio Art, Graphic Design, Interaction Design. Certificate programs allow students to focus on an area of study including Digital Art, Mobile Application Development, Motion Graphics and Photography.

Curriculum-at-a-Glance

Depending on which degree or certificate option selected, coursework may include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Introduction to Digital Photography, Photographic Darkroom Processes, Intermediate Digital Photography, Studio LightingTechniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Art + Design Projects, Animation and 3D Modeling, Interactive Web Design I and II, and Motion Graphics I and II, Directed Studies, and Art Portfolio.

Program/Degree Options

RCTC's Art + Design programs offer several different areas of emphasis and degree options. These options include: Art, Associate in Fine Arts Degree Program; Graphic Design, Associate in Science Degree Program; Interaction Design (Web Design), Associate in Science Degree Program (Optionally completely online); Photography, Certificate Program; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, Certificate Program (Optionally completely online).

Program Start Date(s)

Programs can be started when courses start at the beginning of any semester. Some courses may be offered only once a year. Check the RCTC catalog for course availability by semester. Consult your academic advisor for your program of study.

Career Opportunities/Information

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Gainful Employment Programs

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RCTC gainful employment information for Motion Graphics Certificate; Digital Art Certificate and Photography Certificate:
http://www.rctc.edu/catalog/ge/MOTIONGRAPHICS.pdf
http://www.rctc.edu/catalog/ge/DIGITALART.pdf
http://www.rctc.edu/catalog/ge/MOBILEAPP.pdf
http://www.rctc.edu/catalog/ge/PHOTOGRAPHY.pdf

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For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact

Music

Career/Program Overview

RCTC offers three Associate in Fine Arts degrees in Music Education. The three degree options include: Music Industry AFA, Music Education: Instrumental/General K-12 AFA, and Music Education: Vocal/General K-12 AFA.

RCTC also offers an AS and a Certificate in Digital Arts – Music Technology.

Curriculum-at-a-Glance

Depending on the program options selected, courses may include: Electronic Music Composition I & II, Audio Production I & II, Applied Music – Vocal, Applied Music -- Instrumental, Beginning and/or Intermediate Piano, Beginning and /or Intermediate Class Voice, Musicianship I – IV, Concert Choir, Concert Band, and World Drum Ensemble.

Program/Degree Options

RCTC offers a 60-credit Associate in Fine Arts (AFA) in each of the following: Music Industry, Music Education: Instrumental/General K-12, and Music Education: Vocal/General K-12.

The AFA Music Education – Instrumental/General K-12 prepares students to transfer to a baccalaureate program in music education and qualify for music, instrumental K-12 Board of Teaching licensure.

The AFA Music Education – Vocal/General K-12 prepares students to transfer to a baccalaureate program in music education and qualify for music, vocal K-12 Board of Teaching licensure.

The AFA Music Industry prepares students to transfer to a baccalaureate program in music industry/business.

The AS Digital Arts – Music Technology program prepares students for transfer to any music institution for careers in the following areas: (1) Sound Engineering (audio, video, web); (2) Studio Performance; (3) Music composition; (4) Music Business; and (5) Music Education. The potential careers are many.

Program Start Date(s)

Students can start coursework any semester. Some courses are not offered every semester so students are encouraged to meet with program advisors to plan ahead.

Career Opportunities/Information

In the music area, which includes music teachers, musicians, music studio engineers, music business and composers, Minnesota's gap analysis reflects an expected 76 available positions in the next year.

Minnesota's Department of Employment and Economic Development projects a 10.3% increase in employment of musicians and singers from 2009-2019. In addition, employment of music directors and composers is expected to increase 8.3% from 2009-2019.

The American Association for Employment in Education, 2008, and the National Association for Music Education reported a healthy balance between openings and graduates for prepared music, vocal and instrumental teachers in the Great Plains/Midwest region, including Minnesota.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Digital Arts - Music Technology Certificate;
http://www.rctc.edu/catalog/ge/DIGITALART-MUSICTECH.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

RCTC's Associate in Fine Arts degrees in Music Education: Instrumental/General K-12, Music Education: Vocal/General K-12 and Music Industry articulate with the Bachelor of Science degrees in Music Education and Music Industry at Minnesota State University, Mankato.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/music/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Music Technology

Career/Program Overview

RCTC offers three Associate in Fine Arts degrees in Music Education. The three degree options include: Music Industry AFA, Music Education: Instrumental/General K-12 AFA, and Music Education: Vocal/General K-12 AFA.

RCTC also offers an AS and a Certificate in Digital Arts – Music Technology.

Curriculum-at-a-Glance

Depending on the program options selected, courses may include: Electronic Music Composition I & II, Audio Production I & II, Applied Music – Vocal, Applied Music -- Instrumental, Beginning and/or Intermediate Piano, Beginning and /or Intermediate Class Voice, Musicianship I – IV, Concert Choir, Concert Band, and World Drum Ensemble.

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The AFA Music Education – Instrumental/General K-12 prepares students to transfer to a baccalaureate program in music education and qualify for music, instrumental K-12 Board of Teaching licensure.

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For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/music/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Natural Science

Career/Program Overview

RCTC's Natural Science Associate in Science degree program is designed to articulate with a four year degree in the sciences. RCTC has a specific articulation with Minnesota State University, Mankato for their Bachelor of Arts in Chemistry. This two-year degree includes basic science curriculum to fulfill many requirements for pre-professional programs such as medicine, dentistry, pharmacy, chiropractic, and engineering. Students are strongly encouraged to check with the professional school(s) of their choice to ensure that specific requirements are fulfilled.

Curriculum-at-a-Glance

Coursework includes: Introduction to Physics I and II, Organic Chemistry I and II, Principles of Nutrition and Fundamentals of Statistics. General education requirements include courses in: written and oral communications, biology, chemistry, calculus I and II, cultural anthropology, and ethics.

Program/Degree Options

RCTC's Natural Science Associate in Science degree is 60 credits in length.

Program Start Date(s)

Students can begin general education requirements any semester.

Career Opportunities/Information

This degree is specifically designed for transfer into a bachelor's degree.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/natural-science/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Nursing Assistant

Career/Program Overview

The Nursing Assistant curriculum is designed to prepare students for entry-level employment careers in health care under the supervision of the licensed nurse. Students will learn the basic skills to work in a variety of health care settings. A Nursing Assistant may be involved in direct patient/resident care or assist with care of the patient/resident unit and/or equipment, charting, record keeping and home-health services.

Students completing NA 1500 and/or NA 1501who desire employment in long term care or home care are eligible to take the Nursing Assistant Registry Exam offered by Pearson Vue. Dates of the exam are available by reviewing RCTC's Workforce Education website at http://www.rctc.edu/workforce/ and select "Testing". Successful completion will place the individual on the Minnesota Nursing Assistant State Registry.

All students must pass a Minnesota State background check in order to complete the clinical portion of the class.

Curriculum-at-a-Glance

Nursing Assistant coursework includes Nursing Assistant Theory and Clinical, Home - Health Aide Theory and Hospital Nursing Assistant.

Program/Degree Options

The various courses offered in Nursing Assistant can provide a career ladder in the health care field. Successful completion of Nursing Assistant Theory and Clinical curriculum is a required component of the Advanced Hospital Nursing Assistant Certificate, Human Services Technician, Surgical Technology, Practical Nursing and Associate Degree Nursing programs.

Program Start Date(s)

RCTC offers the Nursing Assistant courses several times throughout the academic year and during summer sessions.

Career Opportunities/Information

According to iseek (www.iseek.org) career information, Minnesota employment of nursing assistants is expected to grow. The strongest demand for nursing assistants will be in Long Term Care and residential care homes.

The Advanced Nursing Assistant Hospital Certificate curriculum further prepares the health care provider with the necessary skills to seek employment at Mayo Clinic hospitals or other related service areas as a Patient Care Assistant (PCA). Taking all of the Nursing Assistant components will increase employment opportunities.

In addition to the State Background check, all students pursuing the Advanced Hospital Nursing Assistant Certificate must also pass a National Background Check.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/na/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Nursing Associate Degree

Career/Program Overview

The purpose of the Associate Degree Nursing (ADN) Program at Rochester Community and Technical College (RCTC) is to provide the student with the education, knowledge and skill for the practice of professional nursing. This is a four semester program that can be completed in two years. Students may be enrolled on a full or part time basis. Students are accepted directly into the ADN Program or given advanced placement though transfer credits as a Licensed Practical Nurse (LPN). The nursing curriculum provides a framework for students learning in the classroom, laboratory and clinical setting. These educational experiences allow the student to achieve program learning outcomes. Upon successful completion of the program approved by the Minnesota Board of Nursing, students are eligible to apply for to take the National Council Licensure Examination – Registered Nurse (NCLEX-RN) and enter the profession of nursing as defined by the 2013 Minnesota statutes (148.171 Subd. 15, Practice of Professional Nursing).

Curriculum-at-a-Glance

Coursework includes 30 credits of Minnesota Transfer Curriculum General Education and 34 nursing credit requirements. These courses include: Fundamentals of Nursing, Adult Nursing I and II, Maternal Newborn Nursing, Mental Health Nursing, Pediatric Nursing, Advanced Concepts, Leadership and Management, and Professional Practice Issues.

The program has five (5) core integrating concepts which are embedded into each course. These concepts include; Professionalism, Critical Thinking, Caring, Collaboration, and Nursing Intervention.

Program/Degree Options

The Associate degree in Nursing is 64 credits and can be completed in two years. The program sheet provides a four semester plan of study for the full time student.

RCTC can offer students a career path in nursing beginning with the Nursing Assistant program, then advancing to the Practical Nursing Diploma program and then completing an Associate in Science Degree in Nursing.

The Practical Nursing Diploma program is 39 credits in length and can be completed in 10 months.

Program Start Date(s)

Students can begin general education requirements any semester. RCTC starts a cohort in fall and spring semesters. Specific applications deadlines for each of these semester starts are noted on the program website below.

Career Opportunities/Information

For the most up to date statewide occupational employment information please visit the following website. www.deed.state.mn.us/lmi/tools/oid/

Accreditations/Articulations

Upon successful completion of this program, graduates are eligible to apply to take the National Council Licensure Examination – Registered Nurse (NCLEX-RN). The program is approved by the Minnesota Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC).

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/nurs/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Nursing: Practical Nursing

Career/Program Overview

The Practical Nursing major is designed to provide students with the knowledge and skills necessary to provide direct nursing care to patients in hospitals, nursing homes, clinics, home and community based settings. This educational program includes classroom theory, laboratory experience and supervised clinical experience in area hospitals, nursing homes, clinics and community health care agencies. During the last semester of the program, the clinical rotation includes integrated clinical experience where students participate in eight-hour shifts to assist them in making the transition from student role to the role of graduate practical nurse.

Curriculum-at-a-Glance

Coursework for the Practical Nursing program includes 12 general education credit requirements and 27 core practical nursing credit requirements. The general education courses may be taken prior to or concurrent with the nursing courses. The program may be completed in 10 months, starting in August and completion in June. Core requirements include: Nursing Skills and Concepts, Introduction to Pharmacology I and II, Adult Nursing, Integrated Clinical Application, Family and Mental Health Concepts, and Care of the Older Adult.

Program/Degree Options

The Practical Nursing Diploma program is 39 credits in length.

RCTC can offer students a career path in nursing beginning with the Nursing Assistant program, then advancing to the Practical Nursing Diploma program and then completing an Associate in Science Degree in Nursing.

Program Start Date(s)

Students can begin general education requirements any semester. The general education courses can be completed on a part-time or full-time basis. In order to complete the Practical Nurse diploma program in one year, students must begin professional-related coursework fall semester on a full-time basis.

Career Opportunities/ Information

For the most up to date statewide occupational employment information please visit the following website. www.deed.state.mn.us/lmi/tools/oid/.

Gainful Employment Programs
Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Practical Nursing Diploma:
http://www.rctc.edu/catalog/ge/NURSING-PRACTICAL.pdf

Accreditations/Articulations

A graduate of the Practical Nursing program is eligible to apply to take the National Council for Licensing Exam – Practical Nursing (NCLEX-PN). This program is approved by the Minnesota Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC).

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/pnm/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Occupational Skills

Career/Program Overview

This program provides individuals with mild to moderate disabilities the vocational training necessary to obtain and maintain competitive entry level employment. The target population is individuals outside of a sheltered work environment who are unable to succeed in traditional coursework.

Mission Statement

The Occupational Skills Program provides quality learning opportunities for students with mild-moderate disabilities to become self-directed, employable contributing community members.

Curriculum-at-a-Glance

The Occupational Skills program consists of coursework in job seeking and interviewing, independent living skills, and interpersonal communication. Internships also provide the student an opportunity to enhance vocational skills developed in occupational training.

Program/Degree Options

Diploma Option
The Occupational Skills diploma option is a nine-month program consisting of 31 credits.

Certificate Option
The Occupational Skills certificate option is a nine-month program consisting of 19 credits.

Program Start Date(s)

Occupational Skills is designed to be completed on a full-time basis as students will develop skills as a cohort group. The courses are designed to be taught consecutively to build on skill sets.

Career Opportunities/Information

Upon completion of the Occupational Skills program, students will be prepared for jobs in numerous entry level service professions.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Occupational Skills Certificate and Occupational Skills Diploma:
http://www.rctc.edu/catalog/ge/OCCSKILLS.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/osp/
Program Plan: http://www.rctc.edu/catalog/programs/
Facebook: www.facebook.com/RCTCOSP
More Information: http://www.rctc.edu/contact/

Personal Trainer

Program Overview

RCTC offers two options for a Personal Trainer Certification. The Diploma program is a 30 credit degree while the Certificate is a 20 credit program. This program will provide a broad foundation of knowledge to assist students to assess, design and prescribe individualized fitness training programs for clients who are looking to improve their personal fitness and overall quality of life.

Curriculum-at-a-Glance

General core coursework will include, Essentials of Personal Training, Essentials of Strength and Conditioning, Sport Psychology, Sport Nutrition for Performance, Prevention and Care of Athletic Injuries CPR/AED training and an internship. Elective options allow students to choose from course work in the areas of Methods of Group Fitness, Lifetime Fitness, Recreation Program Leader, Boot Camp Circuit Training, Strength Training for Men and Women, Jogging & Walking, and PT/GF Exam Certification prep.

Program/Degree Options

Personal Trainer Diploma – 30 credits
        MNTC – Science options – 4 credits
        Professional Core – 18 credits
        Electives – 8 credits

Personal Trainer Certificate – 20 credits
        MNTC – Science options – 4 credits
        Professional Core – 9 credits
        Electives – 7 credits

Related Field Programs
        Sport Management
        Coaching
        Group Fitness Instructor
        * all have Certificate and Diploma options

Program Start Date(s)

Students may begin coursework any semester. Some courses are not offered every semester, so students are encouraged to meet with the program advisor to plan their coursework accordingly.

Career Opportunities/Information

RCTC's Personal Trainer program will prepare students for working with clients in individualized settings to assist them to improve their fitness levels. This coursework will expose student to the resources and professional networks that they will require to stay current in their profession over the length of their career. Personal Trainer opportunities are available in almost every community in our nation as programs offered through recreational venues, public and private fitness clubs, or as independent businesses. Related areas find Personal Trainers working with team sports or individual athletes to improve sport specific skills as well, at every level from youth recreational sports to interscholastic, intercollegiate, amateur and professional teams. This program will enable individuals to start with a solid knowledge base and a nationally recognized certification to begin their career.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information:
http://www.rctc.edu/catalog/ge/COACHING-SPORTMGMT.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by the Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

Students are exposed to the many certification options within this field and are trained and coached to succeed with the area they choose to certify with. Some options include American Council on Exercise -ACE, National Federation of Personal Trainers - NFPT, National Strength and Conditioning Association - NSCA, American College of Sports Medicine – ACSM, National Academy of Sports Medicine – NASM.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/sports/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Photography

Career/Program Overview

RCTC's Art + Design programs prepare students for opportunities as studio artists, photographers, digital artists, graphic designers, interactive designers, and web designers. The programs focus on artistic creation using traditional and electronic media. The degree programs consist of a liberal art core and offer programs of study in Studio Art, Graphic Design, Interaction Design. Certificate programs allow students to focus on an area of study including Digital Art, Mobile Application Development, Motion Graphics and Photography.

Curriculum-at-a-Glance

Depending on which degree or certificate option selected, coursework may include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Introduction to Digital Photography, Photographic Darkroom Processes, Intermediate Digital Photography, Studio LightingTechniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Art + Design Projects, Animation and 3D Modeling, Interactive Web Design I and II, and Motion Graphics I and II, Directed Studies, and Art Portfolio.

Program/Degree Options

RCTC's Art + Design programs offer several different areas of emphasis and degree options. These options include: Art, Associate in Fine Arts Degree Program; Graphic Design, Associate in Science Degree Program; Interaction Design (Web Design), Associate in Science Degree Program (Optionally completely online); Photography, Certificate Program; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, Certificate Program (Optionally completely online).

Program Start Date(s)

Programs can be started when courses start at the beginning of any semester. Some courses may be offered only once a year. Check the RCTC catalog for course availability by semester. Consult your academic advisor for your program of study.

Career Opportunities/Information

Studio Artists work in traditional art media including drawing, painting, ceramics, sculpture, printmaking, photography, and fibers. Most of a Studio Artist's day is spent creating artwork, arranging shows, and preparing work for exhibition. They create work to display and sell in galleries. Studio Artists can also work in galleries, art centers, and provide artwork to collections.

Graphic Designers combine text and graphics in order to communicate a message. Most of a Graphic Designer's day is spent researching needs, sketching solutions, or creating designs for logos, layouts, and environments. They provide solutions to their client's visual communication problems.

Interaction Designers / Web Designers combine text and graphics to create functional and compelling web sites for their clients. Most of a Web Designer's day is spent researching needs, testing the usability, developing design solutions, or implementing web sites. They provide clients with a functional web site that communicates the messages the client intends. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

Digital Artists create computer illustrations, photographic illustrations, and other graphic elements. Most of a Digital Artist's day is spent on developing a project, drawing pictures, or assembling artwork. They provide content to graphic designers, web designers, and interactive designers. Digital Artists also exhibit their work in galleries and museums.

Mobile Application Developers combine text, graphics and programming to create applications for smart phones, tablets and other mobile devices. Most of a Mobile Application Developer's day is spent researching, creating, animating, and programming interactive content for mobile devices. Mobile Application Developers often work for a design agency, a business or as freelance programmers.

Motion Graphic Artists work at creative firms, advertising agencies, in-house design departments, or as freelancers. Motion Graphic Artists combine text, graphics, animation, video, sound, and user input to create a rich environment and experience for the user. Most of a Motion Graphic Artist's day is spent researching, creating, animating, and developing interactive content. Motion Graphic Artists often work at a design agency, as a freelancer, or exhibit their work in galleries.

Photographers create lens-based images using both digital and analog materials. Most of a Photographer's day is spent creating images, networking, or managing a business. Photographers make images for clients, for publication, or for exhibition. Photographers are often self-employed or work as an in-house photographer for a business.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Photography, Digital Art Certificate, Mobile Web Application Certificate and Motion Graphics Certificate:
http://www.rctc.edu/catalog/ge/PHOTOGRAPHY.pdf
http://www.rctc.edu/catalog/ge/DIGITALART.pdf
http://www.rctc.edu/catalog/ge/MOBILEAPP.pdf
http://www.rctc.edu/catalog/ge/MOTIONGRAPHICS.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

An articulation agreement for Art, Associate in Fine Arts Degree Program has been established between RCTC and Minnesota State University, Mankato. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program have been established with Minnesota State University, Moorhead.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact

Precision Manufacturing Technology

Career/Program Overview

RCTC's Precision Manufacturing Technology (PEM) major is designed to prepare students for a technical career using Computer Aided Manufacturing (CAM) and Computer Aided Drafting (CAD) tools and techniques. PEM majors can use CAD to create 3D models and drawings then turn those electronic files into finished machined parts and "prototypes" using CAM software and Computer Numerical Controls (CNC) machines. The curriculum primarily covers the mechanical disciplines of CAD and CAM. The CAD and CAM courses are taught in state-of-the-art facilities featuring the latest release of and SolidWorks and Cam software.

Curriculum-at-a-Glance

Coursework includes: 3D CAD, Introduction to Cam, Blue Print Reading, Manual Mill & Lathe Theory, Basics of CNC Turning and machining, Open Manufacturing Labs, CNC Coordinates & Offsets, CNC manual operations, Quality Assurance, Introduction to GD & T, and Manufacturing Internship.

Most of the PMT basic coursework is taught online. Labs are "hands-on" and on site. We provide a flexible schedule for open labs to complete the coursework required.

For more detailed program information, refer to RCTC's program course requirements at: http://www.rctc.edu/catalog/programs/index.html.

Program/Degree Options

RCTC offers a diploma in Precision Manufacturing Technology. RCTC offers this 35credit diploma with the ability to complete it in one year.

Program Start Date(s)

Students can start coursework for the PMT Diploma in the fall.

Career Opportunities/Information

According to the Occupational Employment Statistics in cooperation with the U.S. Bureau of Labor Statistics, the median wages of machinists (51-4041) in the United States is $19.48 per hour. In Minnesota the median hourly wage for machinists is $20.45. In Southeastern Minnesota, machinists can anticipate a median hourly wage of $20.48.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for CAD (Computer Aided Drafting) Technology Diploma and Precision Manufacturing Technology Diploma: http://www.rctc.edu/catalog/ge/PRECISIONMANUFACTECH.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Protective Agent

Career/Program Overview

The CRJU Protective Agent Certificate is designed for Criminal Justice and Law Enforcement students and working professionals who have an interest in the field of private security. This certificate provides students with a comprehensive overview of private security and its role in securing the country's critical infrastructure as well as training for armed agents. This certificate meets educational requirements as set forth by the state of Minnesota for Protective Agents.

Curriculum-at-a-Glance

Program related courses include: Introduction to Private Security, Homeland Security/Defense, Minnesota Criminal Code/Traffic Statutes, Defensive Tactics for Protective Agents, Basic Firearms, and First Responders Training.

Program/Degree Options

RCTC offers a certificate of completion for the Protective Agent/Private security core courses.

Program Start Date(s)

Program-related courses can be taken without sequence in the semester that they are offered. Some of the courses will be offered on-line, while others will require conventional presentation.

Career Opportunities/Information

Private security is a field that includes the following occupations: Security Guards, Gaming surveillance officers, gaming investigators. In 2008 there were approximately 1,086,000 employees in the state of Minnesota.

The projection is for a 14 percent increase in employment positions throughout the state. This statistic does not take into account employment opportunities out-of-state.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Protective Agent Certificate:
http://www.rctc.edu/catalog/ge/PROTECTIVEAGENT.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/lawe/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Software Application Specialist

Career/Program Overview

RCTC offers various degree options as an Administrative Assistant, Administrative Assistant: Legal Emphasis, a Customer Service Administrative/Specialist and a certificate program as a Software Application Specialist Certificate provides a benchmark for students to measure their computer skills. Graduates will have a mastery of computer software skills.

Curriculum-at-a-Glance

Coursework to be a Software Application Specialist focuses on word processing skills, knowledge and use of computer voice recognition, Desktop Publishing and use of Microsoft Business Applications

Program/Degree Options

- Administrative Assistant Refresher Certificate (20 credits)
- Administrative Assistant Certificate (27 credits)
- Administrative Assistant Diploma (37 credits)
- Administrative Assistant Associate in Applied Science (61 credits)
- Administrative Assistant Associate in Science (60-credits)
- Customer Service Administrative Specialist Diploma (33 credits)
- Customer Service Office Assistant Certificate (16 credits)
- **Software Applications Specialist Certificate (16 credits)**
- Administrative Assistant: Legal Emphasis Certificate (23 credits)

Program Start Date(s)

Many courses within this certificate option are available online.

Career Opportunities/Information

Almost all application specialist position requires that you have a good deal of knowledge of technology and its day-to-day changes. The jobs require the application specialist to be expert in several computer programs and how the software's can interface. Job opportunities for Software Application Specialist may be available in large and small business offices including IBM, Mayo Clinic, Non Profit Organizations, manufacturing, school districts, churches, pharmacies and insurance firms to name a few.

Salaries will vary in Minnesota depending upon specialty skills. Range – $11.25 to $22.06.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Software Applications Specialist Certificate: http://www.rctc.edu/catalog/ge/SOFTWAREAPPSPEC.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/btec/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Sport Management

Career/Program Overview

RCTC offers both an Associate in Applied Science degree and a Diploma option for students interested in a career in Sport Management.

Curriculum-at-a-Glance

General course work will include: Introduction to Sport Facility Management, Legal Environment of Business, Principles of Management, Introduction to Business, and Responding to Emergencies. While focused areas of study, depending on option choice, will include courses such as; Introduction to Turf, Foundations of Golf Course Management, Development & Management of Sport/Recreation Facilities, and Recreational Program Leadership. Both programs regardless of degree choice include an internship as well.

Elective credits are required and a range of options are offered. Options include but are not limited to; Lifetime Fitness, Essentials of Personal Training, Turf and Grounds Management and Introduction to Athletic Training.

Program/Degree Options

RCTC offers two options within the field of Sport Management.

Associate in Applied Science Degree
60 credit, 2 year
Diploma
30 credit, 1 year

Either program offers a choice between two areas of study.
Option "A" Sport/Athletic Facilities Management

Option "B" Golf Course Management

Note: Both options may be completed.

RCTC offers these related field programs.

Coaching
Personal Trainer
Group Fitness Instructor
* All have Certificate and Diploma options

Program Start Date(s)

Students can start coursework any semester. Some courses are not offered every semester so students are encouraged to meet with the program advisor to plan ahead, be aware of class pre-requisites and length of coursework required.

Career Opportunities/Information

RCTC's Sport Management program options prepare students for a wide range of career opportunities. These may include careers in community education, recreation centers, athletic/fitness clubs, adventure courses, ice arenas, park and recreation departments, high school or collegiate athletic programs, amateur or professional sports teams, leagues or administrations.

According to the U. S. Department of Labor Bureau of Labor Statistics Occupational Outlook Handbook, overall employment in leisure and hospitality jobs is expected to grow by 17.8 percent. New jobs in the recreational sector reflect increasing incomes, leisure time and awareness of the health benefits of physical fitness. Overall employment of recreation and fitness workers is expected to grow faster than the average for all occupations through 2012.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information:
http://www.rctc.edu/catalog/ge/COACHING-SPORTMGMT.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/sports/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Supervisory Management

Career/Program Overview

The Supervisory Management program is specifically designed to provide *employed* students with the skills necessary to be successful in a position of supervisory leadership. Students can benefit from this program by becoming qualified for advancement into a supervisory position, to enhance current skills for persons who are already supervising others, or for advancement into a position of greater responsibility and influence.

Curriculum-at-a-Glance

Students will have the opportunity to increase their skills in leadership, interpersonal skills, workplace ethics, managing change, resolving conflict, developing productive work relationships, team building, employee motivation, creative problem solving, performance management, coaching, productivity, project management and many more supervisory leadership techniques and tools.

Program/Degree Options

RCTC offers three stackable 9-credit certificate options in Supervisory Leadership, Quality, Continuous Improvement and Performance and Human Resource Development and an Associate in Applied Science (A.A.S.) in Supervisory Management.

Program Start Date(s)

The Supervisory Management program is offered in a cohort model contact Business and Workforce Education www.rctc.edu/workforce for program dates.

Career Opportunities/Information

Career advancement opportunities exist within multiple industries that demand the leadership and management skills that students will develop in this program.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Surgical Technology

Career/Program Overview

The Surgical Technology degree is designed to provide students with the knowledge and skills necessary for careers working in an operating room. The surgical technologist prepares the surgical environment and functions as a team member during surgical procedures. After many hours of simulated experiences in a well-equipped lab, students will obtain clinical experience at Mayo Clinic Hospitals in Rochester, Minnesota and other hospitals in Southeastern Minnesota. Visit us at http://www.rctc.edu/program/st/.

Curriculum-at-a-Glance

The Surgical Technology program consists of 18 general education credits including English, biology, chemistry, and psychology.

Program-specific coursework includes: medications, microbiology, operating room techniques and surgical procedures.

For more detailed program information, refer to RCTC's program course requirements at http://www.rctc.edu/catalog/programs/.

Program/Degree Options

RCTC offers a 60 credit Associate in Applied Science Surgical Technology degree.

Program Start Date(s)

First year coursework can be taken any semester. Second year or program-specific coursework begins fall semester only.

Career Opportunities/Information

Surgical Technologists are primarily employed in operating rooms. Other opportunities for employment include ambulatory surgery, outpatient surgery center, private physicians' offices and central supply. According to the Bureau of Labor Statistics, employment or surgical technologists is expected to grow by 19% through 2020.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

RCTC's Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) 1361 Park Street, Clearwater, FL 33756 (Phone 727-210-2350) www.caahep.org CAAHEP accredits the program in cooperation with the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). 6 W Dry Creek Circle, Suite # 110, Littleton, CO 80120, (Phone 303-694-9262) www.arcstsa.org

As part of the requirements to graduate from the Surgical Technology program, students must take the National Board of Surgical Technology and Surgical Assisting (NBSTSA) Certifying Examination for Surgical Technologists.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/.

Additional Information

Program Website: http://www.rctc.edu/program/st/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Veterinary Technician

Career/Program Overview

The trend toward group practices, increased client expectations of quality care, and an economic need to leverage Veterinarians' productivity, have allowed veterinary technicians to play a greater role in providing nursing care and related medical services. Veterinary Technicians can assist the veterinarian as a nurse, lab technician, radiography technician, anesthetist, surgical nurse and client educator.

Curriculum-at-a-Glance

The Veterinary Technician program is an Associate in Applied Science degree. The degree consists of 18 credits of general education and 54 credits of veterinary technology core courses. Some of these core courses include: animal husbandry, veterinary surgical nursing, animal nursing, clinical labs, animal nutrition, pharmacology, pathology, comparative vet anatomy and physiology, applied diagnostic imaging and field experience.

Program/Degree Options

RCTC offers an Associate in Applied Science (A.A.S.) Degree. The Associate in Applied Science Degree can be completed on a full-time basis in two years.

Program Start Date(s)

The Veterinary Technician courses are scheduled in a sequential manner. All students begin in the fall semester with the Veterinary Technician prerequisites. Students who successfully complete the program prerequisites will be considered to advance into the second semester and year to obtain the Veterinary Technician Associate in Applied Science (A.A.S.) degree.

Application to the Veterinary Technician A.A.S. degree program will occur during fall semester from the pool of students that are enrolled in prerequisite courses.

Career Opportunities/Information

Eighty-five percent of veterinary technicians and assistants are employed in private practice.* Most technicians are employed in a companion animal practice. The demand for trained technicians and assistants in other areas is rapidly expanding. Other employment opportunities include: biomedical facilities, diagnostic laboratories, colleges/universities, veterinary supply sales, zoos and wildlife facilities, the military, humane societies and animal control facilities, drug or feed manufacturing companies, industry or food safety inspection.

*National Association of Veterinary Technicians in America (www.navta.net)

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

The RCTC Veterinary Technology program is fully accredited by the American Veterinary Medical Association.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/vt/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Welding

Career/Program Overview

RCTC's Welding program is designed to prepare students for careers in metal joining. The program provides an overview of the basic principles and practical application of the most commonly utilized welding processes including welding terminology, weld design, blueprint reading, safety, electrical theory, the weldabiity of metals and quality control.

Curriculum-at-a-Glance

Instruction will include Welding Theory, Blueprint reading, Shielded Metal Arc, Gas Metal Arc, Tungsten Arc and Oxy-fuel Gass welding in multiple positions as well as brazing and metal cutting. In addition the program will focus on safety and quality assurance and includes an internship component.

Program/Degree Options

RCTC's Welding Technology Program is a 17-credit certificate intended to be completed in one semester.

Program Start Date(s)

The Program will begin both fall and spring semesters and students should expect to enroll full-time.

Career Opportunities/Information

Career opportunities exist within small and large manufacturers throughout the SE MN region including welding repair and large scale product fabrication companies. Graduates typically start out in entry-level positions. With further on-the-job training and education students may advance to become specialists, mechanical engineers or production supervisors.

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/welding/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Youth Work

Career/Program Overview

RCTC's Youth Work major is the only program of its kind in Minnesota. It is designed to provide students with a comprehensive, basic curriculum needed to work in careers with individuals ages 12 - 21 in a variety of settings. Students gain necessary skills and competencies by discussing, reflecting, observing, and completing projects and field experiences.

The Youth Work Certificate and A.A.S. degree with an emphasis in Youth Studies were developed in cooperation with the University of Minnesota Youth Work Institute and the Youth studies faculty within the Social Work Department of the College of Education and Development at the University of Minnesota.

Curriculum-at-a-Glance

The curriculum is based on the importance of relationships, quality interactions, and the power of youth engagement. Coursework links developmental theory, recent brain research, and best practices. Class topics include positive youth development, developmental assets, risk and resiliency, youth engagement, experiential learning, and quality programs for youth.

Students who can demonstrate learning as a result of completing Youth Work Institute trainings, YIPA trainings, or other experienced-based learning may be able to earn credit for life experience and apply those credits toward the Youth Worker Certificate, A.A.S. degree, or A.A. degree.

Program/Degree Options

RCTC's Youth Work program is offered through Child, Youth and Family Studies. The 17 credit Youth Work Certificate prepares students to become youth service workers and youth development practitioners. Students can also complete an A.A.S degree in Child, Youth, and Family Studies with an emphasis in Youth Studies. Students may combine the Youth Work Certificate with an Associate of Arts degree in Liberal Studies and seek further education to earn a degree in youth studies, child and youth studies, or youth ministry.

Program Start Date(s)

Youth Work coursework can be taken any fall, spring, or summer semester. Many of the Youth Work Courses are offered online. Depending on which degree option selected - students may need to start fall semester in order to complete the degree option in one or two semesters. If taken on a full-time basis, the certificate program can be completed in as little as one year and the A.A.S. degree within two years.

Career Opportunities/Information

Upon graduation students will be eligible for employment that provides direct services, youth, and their families. Youth work is an emerging profession. Youth Workers are employed in a variety of settings. Graduates may find themselves working in school settings such as: after-school programs, recreation and sports, outdoor and environmental education, juvenile justice, residential and special education, mentoring, prevention, social work, or faith-based programs. Graduates of the program may seek further education to earn a degree in youth studies, youth ministry, social work, child and family studies, psychology, juvenile justice, or public affairs.

Gainful Employment Programs

Gainful employment programs are those "that prepare students for gainful employment in a recognized occupation."

RCTC gainful employment information for Youth Work Certificate:
http://www.rctc.edu/catalog/ge/CHILDDEV-CERT.pdf

Accreditations/Articulations

Rochester Community and Technical College is accredited by The Higher Learning Commission: A Commission of the North Central Association of Colleges and Schools.

For additional information on the most current list of RCTC program articulations see us at:
http://www.rctc.edu/catalog/articulations

Additional Information

Program Website:
http://www.rctc.edu/program/cd/index.cfm
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/

Program Plans

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

ACCOUNTING
Associate in Science

I.   Minnesota Transfer Curriculum (MnTC) General Education Requirements................30 Credits

Goal 1: Written and Oral Communication ....7 cr
COMM 1114, Fundamentals of Speech, 3 cr
ENGL 1117, Reading & Writing Critically I, 4 cr ....

Goal 3: Natural Science..………………………………………………..…….…6 cr
Choose two courses with labs from different areas that meet MnTC Goal 3

Goal 4: Mathematics/Logical Reasoning ....3-5 cr
MATH 1119, Applied Calculus for Business Majors, 3 cr <u>OR</u>
MATH 1127, Calculus I, 5 cr

Goal 5: History and the Social and Behavioral Sciences ....11 cr
ECON 2214, Principles of Microeconomics, 4 cr
ECON 2215, Principles of Macroeconomics, 4 cr
Three credits from MnTC Goal 5

Goal 6: Humanities – the Arts, Literature, and Philosophy ....3 cr
Credits from MnTC Goal 6

II.   Business Core Requirements   .... .30 Credits
ACCT 1814, Payroll Accounting, 3 cr
ACCT 2217, Financial Accounting, 4 cr
ACCT 2218, Managerial Accounting, 4 cr
ACCT 2234, Computerized Accounting, 3 cr
ACCT 2237, Accounting Spreadsheet Applications, 3 cr
ACCT 2836, Accounting and Database Applications, 3 cr
BUS 2201, Principles and Marketing, 3 cr
BUS 2210, Legal Environment of Business, 3 cr
BUS 2212, Business & Economics Statistics, 4 cr

TOTAL… .... .60 Credits

ACCOUNTING (Associate in Science Degree), Suggested Course Sequence

Semester I	Semester II
ACCT 2217, 4 cr	ACCT 1814, 3 cr
BUS 2201, 3 cr	ACCT 2218, 4 cr
ENGL 1117, 4 cr	COMM 1114, 3 cr
General Ed Elective – Math, 3-5 cr	General Education Elective, 6 cr

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Semester III
ACCT 2234, 3 cr
BUS 2212, 4 cr
ACCT 2237, 3 cr
ECON 2214, 4 cr

Semester IV
ACCT 2836, 3 cr
BUS 2210, 3 cr
ECON 2215, 4 cr
General Education Elective, 6 cr

Revised: 03/14/2013

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ACCOUNTING CLERK
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ....7 Credits
MNTC approved courses – take at least one
ENGL 1109, Introduction to Technical Communication, **3 cr**
OR
ENGL 1117, Reading and Writing Critically I, **4 cr**
Remaining 3-4 credits to be taken from MnTC General Education courses or RCTC Additional
General Education Options (Allied Studies)Areas 11-14

II. Professional Program-Related Courses ....20 Credits
ACCT 1807, Accounting Math/Calculators, 3 cr
ACCT 1814, Payroll Accounting, 3 cr
ACCT 2217, Financial Accounting, 4 cr
ACCT 2218, Managerial Accounting, 4 cr
ACCT 2234, Computerized Accounting, 3 cr
ACCT 2237, Accounting Spreadsheet Applications, 3 cr

III. Accounting Related Electives...3 Credits
Recommended Electives: Any ACCT, BTEC, BUS, SMGT or course approved by program advisor

TOTAL...30 Credits

COURSE SEQUENCE:

Semester I	Semester II
ACCT 1807, 3 cr	ACCT 1814, 3 cr
ACCT 2217, 4 cr	ACCT 2218, 4 cr
MNTC Course, 3 cr	ACCT 2234, 3 cr
Accounting Related Electives, 3 cr	ACCT 2237, 3 cr
	General Education Electives, 3 cr

Purpose: The Accounting Clerk Diploma prepares students to process manual or computerized accounting records for a business, such as recording and posting sales invoices, disbursements, deductions from payroll, pay and expense vouchers, remittances paid and due, checks, and claims. Students will also learn to compute and record interest charges, process refunds, determine cost of lost or damaged goods, and calculate freight or express charges. Documents prepared may include vouchers, invoices, account statements, payrolls, periodic reports, bank statement's reconciliation, etc.

The program prepares students for positions with titles such as accounting clerk, accounts payable clerk (with accounting duties specified), accounts receivable clerk, advance payment clerk (clerical), billing clerk, cash posting clerk, tax record clerk, and payroll clerk.

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The accounting clerk diploma program is designed as an occupational program leading to employment upon graduation. If pursuing further education, check with receiving institution regarding which RCTC credits will transfer because each college or university determines what credits will transfer to their institution.

Prerequisites: The student should have average to above average ability in reasoning and reading comprehension. Students should be proficient in basic communications and basic math. Discretion, judgment, and initiative are also important. In addition to accounting skill competence, employers seek accountants who have common sense, sound judgment, ambition, dependability, initiative, poise and talent.

Revised: 07/13/2009

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ACCOUNTANT
Associate in Applied Science Degree

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements……………15 Credits
Goal 1: Written and Oral Communication ....**4 cr**
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3:   Natural Sciences ....**3 cr**
Credits from MnTC Goal 3 (Course must include a lab)
OR
Goal 4: Mathematics/Logical Reasoning ....**3 cr**
Mathematics must be 1111 level or higher

Goal 5: History and the Social and Behavioral Sciences ....**3 cr**
PSYC 1611, Psychology of Adjustment, 3 cr **(recommended) OR**
PSYC 2618, General Psychology, 4 cr

Goal 6: Humanities – the Arts, Literature, and Philosophy ....**3 cr**
Credits from MnTC Goal 6

Additional General Education Requirements ....**2 cr**
Students may choose additional elective credits from MnTC Goals 1-10 to meet the
general education requirements.

II. Professional Program-Related Courses…………………………........…………………...40 Credits
ACCT 1807, Accounting Math/Calculators, 3 cr
ACCT 1814, Payroll Accounting, 3 cr
ACCT 2217, Financial Accounting, 4 cr
ACCT 2218, Managerial Accounting, 4 cr
ACCT 2234, Computerized Accounting, 3 cr
ACCT 2237, Accounting Spreadsheet Applications, 3 cr
*ACCT 2817, Fundamentals of Intermediate Accounting, 4 cr
*ACCT 2836, Accounting and Database Applications, 3 cr
*ACCT 2849, Income Tax, 4 cr
*ACCT 2861, Applied Cost Accounting I, 3 cr
*ACCT 2862, Applied Cost/Managerial Accounting, 3 cr
*ACCT 2874, Integrated Financial Presentations, 3 cr
***Courses offered only once during the school year**

III. Open Electives ....**5 Credits**
TOTAL…………………………..……………………………………………………………....60 Credits

COURSE SEQUENCE:

Semester I
ACCT 1807, 3 cr
ACCT 2217, 4 cr
ENGL 1117, 4 cr
Math or Science Elective, 3 cr

Semester II
ACCT 1814, 3 cr
ACCT 2218, 4 cr
ACCT 2234, 3 cr
ACCT 2237, 3 cr
Humanities and Fine Arts Elective, 3 cr

Semester III
*ACCT 2836, 3 cr
*ACCT 2849, 4 cr
*ACCT 2861, 3 cr
General Education Elective, 2 cr
Open Elective, 3 cr

Semester IV
*ACCT 2817, 4 cr
*ACCT 2862, 3 cr
*ACCT 2874, 3 cr
History and Social Sciences Elective, 3 cr
Open Elective, 2 cr

*Courses offered only once during the school year

Purpose: Building from accounting coursework included in the Accountant Diploma, students complete 15 general education credits in written and oral communications, humanities and fine arts, history and social sciences, mathematics and/or natural sciences, and electives. General education courses taken that are approved for Minnesota Transfer Curriculum will transfer to other Minnesota public colleges or universities; courses not part of the Minnesota Transfer Curriculum may or may not transfer. Students wishing to complete the program in two years will need to average 15 credits per fall and spring semester.

The Accountant A.A.S. degree graduate would be prepared to identify, measure, record, interpret and communicate financial information. Additionally, the graduate would be able to design accounting systems and compute income taxes. An accountant examines, analyzes, and interprets data for the purpose of financial statements and other reports identified for internal and external users. Employment opportunities include three major areas: private enterprises, public accounting firms, and government/non-profit organizations.   Graduates may work for public accounting firms, manufacturing firms, retail or wholesale stores, financial institutions, hospitals, government agencies, insurance companies, etc.

The accounting associate in applied science degree is designed as an occupational program leading to employment upon graduation. If pursuing further education, check with receiving institution regarding which RCTC credits will transfer because each college or university determines what credits will transfer to their institution.

Prerequisites: The student should have average to above average ability in reasoning and reading comprehension. Students should be proficient in basic communications and basic math. Discretion, judgment, and initiative are also important.

Revised: 01/01/2013

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ALCOHOL AND DRUG COUNSELING
Associate in Science

I.   Minnesota Transfer Curriculum (MnTC) General Education Requirements............... 35 Credits
   Goal 1: Written and Oral Communication...11 cr
   COMM 1114, Fundamentals of Speech, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   ENGL 1118, Reading & Writing Critically ll, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences…...4 cr
   BIOL 1110, Human Biology, 4 cr

   Goal 4: Mathematics/Symbolic Systems ....4 cr
   MATH 2208, Fundamentals of Statistics, 4 cr

   Goal 5: History and the Social and Behavioral Sciences ....10 cr
   PSYC 2618, General Psychology, 4 cr
   PSYC 2626, Human Growth & Development, 3 cr
   SOC 1614, Introduction to Sociology, 3 cr

   Goal 6: The Humanities - the Arts, Literature, and Philosophy…………….....6 cr
   SPAN 1001, Introduction to Hispanic Cultures, 3 cr
   One additional 3-credit course from Art, English Literature, Dance, Humanities,
   Music or Philosophy

II. Professional Program-Related Courses ....25 Credits
   HS 1710, Foundations of Alcohol and Drug Counseling, 3 cr
   HS 1720, Co-Occurring Disorders, 3 cr
   HS 1730, Screening and Assessment of Disorders, 2 cr
   HS 1740, Pharmacology of Addiction, 2 cr
   HS 1750, Case Management and Ethics, 3 cr
   HS 1760, Multicultural Aspects of Addiction, 3 cr
   HS 1765, Addictions Counseling Theory and Practice, 3 cr
   HS 1770, Alcohol and Drug Counseling Practicum I*, 3 cr
   HS 1780, Alcohol and Drug Counseling Practicum II*, 3 cr

TOTAL .... 60 Credits

***Must complete the Criminal Background study required by the Minnesota Department of Human
      Services and qualify for direct client contact prior to enrollment in HS 1770 and HS 1780.**

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Notice of Minnesota Background Check Requirement

Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

PURPOSE: The Alcohol and Drug Counseling track of the Associates Degree in Human Services provides the necessary academic course work requirement for licensure. Requirements for licensure as an Alcohol and Drug Counselor by the Minnesota Board of Behavioral Health and Therapy changed on July 1, 2008. Applicants must receive a bachelor's degree from an accredited school, including 18 semester credits and 880 clock hours of supervised Alcohol and Drug Counseling Practicum.

SELECTIVE ADMISSION PROCESS: The Alcohol and Drug Counseling Program requires a program application in addition to the application for admission to the college. Admission requirements and application are available at http://www.rctc.edu/admissions/pre/admission requirements.html.

Revised: 11/28/2012
Implementation: Spring 2013

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ADMINISTRATIVE ASSISTANT
Associate in Applied Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements.............. .15 Credits**
    Goal 1: Written and Oral Communication .... 4 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences
    Credits from MnTC Goal 3 (Course must include a lab) **OR**
    Goal 4: Mathematics/Logical Reasoning
    Mathematics must be 1111 level or above
    3 credits from either Goal 3 or Goal 4 .... 3 cr

    Goal 5: History and the Social and Behavioral Sciences .... 3 cr
    Credits from MnTC Goal 5

    Goal 6: The Humanities-the Arts, Literature, and Philosophy .... 3 cr
    Credits from MnTC Goal 6

    Any MNTC Goal 1-10 Courses……………………………… …………………...2 cr

II. **RCTC General Education: Allied Studies Requirement** ....8 Credits
    Area 12: Computer/Information Literacy .... 7 cr
    BTEC 1320, Word Processing I, 3 cr
    BTEC 1510, Internet Applications, 2 cr
    BTEC 1550, Introduction to Windows, 2 cr

    Area 13: Career and Personal Development .... 1 cr
    BTEC 2870, Employment Strategies, 1 cr

III. **Professionally-Related Business Requirements.. .35 Credits**
    BTEC 1220, Human Relations in Organizations, 3 cr
    BTEC 1230, Machine Transcription 3 cr
    BTEC 1240, Quality Issues in Business Transcription, 1 cr
    BTEC 2200, Information Resource Management, 3 cr
    BTEC 2220, Business Communications, 3 cr
    BTEC 2270, Office Procedures, 3 cr
    BTEC 2330, Word Processing II, 3 cr
    BTEC 2460, Computer Voice Technology,1 cr
    BTEC 2614, Customer Service Skills and Concepts, 3 cr
    BTEC 2841, Internship II, 3 cr
    BTEC 2880, Developing Electronic Portfolio, 1 cr
    BUS 1101, Introduction to Business,3 cr

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BTEC 2350, Microcomputer Business Applications, 3 cr
BTEC 2450, PowerPoint, 1 cr
BTEC 2600, Microsoft Outlook, 1 cr

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

IV. **Electives** .... **2 Credits**
Recommended Electives:
BTEC 1010, Computer Basics, 1 cr
BTEC 1020, Keyboarding for Computers, 1 cr
BTEC 1030, Keyboarding Speed and Accuracy, 1 cr
BTEC 1050, Keyboarding, BTEC 1020 Keyboarding for Computers, 2 cr
BTEC 2615 Planning and Forecasting Based on Customer Service, 1 cr

TOTAL .... **60 Credits**

Purpose: This course of study develops the office skills, knowledge, and attitudes sought by today's employers. Extensive training is provided in communications, current applications software, and other office-related technology. This degree program is also designed with additional general education requirements for those students who may wish to transfer to another program/institution.

Revised: 03/13/2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

ADMINISTRATIVE ASSISTANT
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Ed Requirements............... ....30 Credits**
    Goal 1: Written and Oral Communication .... 4 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Science
    Credits from MnTC goal 3 (Must include a lab)
    OR
    Goal 4: Mathematics/Logical Reasoning.. 3 cr
    Mathematics must be 1111 level or above

    Goal 5: History and the Social and Behavioral Sciences .... 3 cr
    Credits from MnTC Goal 5

    Goal 6: The Humanities-the Arts, Literature, and Philosophy .... 3 cr
    Credits from MnTC Goal 6

    Any MNTC Goal 1-10 Courses...17 cr

II. **Professionally-Related Business Requirements... .30 Credits**
    BTEC 1220, Human Relations in Organizations, 3 cr
    BTEC 1230, Machine Transcription, 3 cr
    BTEC 1240, Quality Issues for Business Transcription, 1 cr
    BTEC 1320, Word Processing I, 3 cr
    BTEC 2200, Information Resource Management, 3 cr
    BTEC 2220, Business Communications, 3 cr
    BTEC 2270, Office Procedures, 3 cr
    BTEC 2330, Word Processing II, 3 cr
    BTEC 2355, Microcomputer Applications with PowerPoint, 4 cr
    BTEC 2614, Customer Service Skills and Concepts, 3 cr
    BTEC 2870, Employment Strategies, 1 cr
    NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1030 Keyboarding for Speed and Accuracy. This class will not count toward the required credits for the program.

    TOTAL .... .60 Credits

Purpose: This course of study develops the office skills, knowledge, and attitudes sought by today's employers. Extensive training is provided in communications, current applications software, and other office-related technology. This degree program is also designed with additional general education requirements for those students who may wish to transfer to another program/institution. Revised: 03/13/2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

ADMINISTRATIVE ASSISTANT
Certificate

I. **RCTC General Education: Allied Studies Requirements** .... **4 Credits**
    Area 13: Career and Personal Development
    ENGL 1630, English Grammar for Careers, 3 cr
    BTEC 2870, Employment Strategies, 1 cr

II. **Professionally-Related Business Requirements**... . **24 Credits**
    BTEC 1220, Human Relations in Organizations, 3 cr
    BTEC 1230, Machine Transcription, 3 cr
    BTEC 1240, Quality Issues for Business Transcription, 1 cr
    BTEC 1320, Word Processing I, 3 cr
    BTEC 2220, Business Communications, 3 cr
    BTEC 2270, Office Procedures, 3 cr
    BTEC 2614, Customer Service Skills & Concepts, 3 cr
    BTEC 2350, Microcomputer Business Applications, 3 cr
    BTEC 2450, PowerPoint, 1 cr
    BTEC 2600, Microsoft Outlook, 1 cr

    TOTAL..**28 Credits**

    NOTE: *BTEC 1030, Keyboarding: Speed/Accuracy Development, 1 cr

    *Recommended for students typing less than 55 wpm.

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

Purpose: This abbreviated program is designed to train or retrain students for basic office clerical positions with emphasis placed on communications and current office technology.

Revised: 03/13/2013

ADMINISTRATIVE ASSISTANT REFRESHER
Certificate

I. Professionally Related Business Requirements .... **18 Credits**
ENGL 1630, English Grammar for Careers, 3 cr
BTEC 1240, Quality Issues for Business Transcription, 1 cr
BTEC 1320, Word Processing I, 3 cr
BTEC 2220, Business Communications, 3 cr
BTEC 2614, Customer Service Skills and Concepts, 3 cr
BTEC 2350, Microcomputer Business Applications, 3 cr
BTEC 2450, PowerPoint, 1 cr
BTEC 2600, Microsoft Outlook, 1 cr

II. Electives……………………………………………………………………………………**2 Credits**
Recommended Electives:
BTEC 1030, Keyboarding Speed & Accuracy, 1 cr
BTEC 1510, Internet Applications, 2 cr
BTEC 2200, Information Resource Management, 3 cr
BTEC 2840, Internship, 2 cr

TOTAL ....**20 Credits**

Purpose: This short term certificate program is a refresher program for students who have worked as an administrative assistant and want to be updated in current technology and software. This program is good for rejuvenating customer service and business communication skills needed as an administrative assistant. If you have been out of the administrative assistant career field for a brief period of time, this certificate program will be an excellent way to show potential employers your skills are current with today's business technology standards.

Revised: 03/13/2013

ADMINISTRATIVE ASSISTANT
Diploma

I. **RCTC General Education: Allied Studies Requirements**…………………………….....9 Credits
    Area 12: Computer/Information Literacy ....5 cr
    BTEC 1320, Word Processing I, 3 cr
    BTEC 1510, Internet Applications, 2 cr

    Area 13: Career and Personal Development ....4 cr
    ENGL 1630, English Grammar for Careers, 3 cr
    BTEC 2870, Employment Strategies, 1 cr

II. **Professionally-Related Business Requirements**.. .29 Credits
    BTEC 1220, Human Relations in Organizations, 3 cr
    BTEC 1230, Machine Transcription, 3 cr
    BTEC 1240, Quality Issues for Business Transcription, 1 cr
    BTEC 2200, Information Resource Management, 3 cr
    BTEC 2220, Business Communications, 3 cr
    BTEC 2270, Office Procedures, 3 cr
    BTEC 2330, Word Processing II, 3 cr
    BTEC 2614, Customer Service Skills and Concepts, 3 cr
    BTEC 2840, Internship, 2 cr
    BTEC 2350, Microcomputer Business Applications, 3 cr
    BTEC 2450, PowerPoint, 1 cr
    BTEC 2600, Microsoft Outlook, 1 cr

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

TOTAL ....38 Credits

Purpose: This one-year concentrated program is designed to prepare students to perform a wide range of office tasks including mail handling, telephone etiquette, records management, scheduling appointments or meetings, and making travel arrangements. Successful graduates may be employed in a variety of business firms, state/local/federal government offices, and many other companies with a need for an office assistant.

Revised: 03/13/2013

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ADMINISTRATIVE ASSISTANT: LEGAL EMPHASIS
Certificate

This short-term certificate prepares students interested in working in a legal environment such as law offices, courts, and police departments, as well as in legal departments of business or government offices. Emphasis is placed on business law, ethics, and the production of quality documents. The benefit of completing the Administrative Assistant Legal Emphasis Certificate will prove to be advantageous when seeking employment opportunities.

I.   **General Education: Allied Studies Requirements**……………………………..………4 Credits
     Goal 13: Career and Personal Development
     BTEC 2870, Employment Strategies, 1 cr
     ENGL 1630, English Grammar for Careers, 3 cr

II. **Professionally-Related Business Requirements**………………………………..……19 Credits
     BTEC 1230, Machine Transcription, 3 cr
     BTEC 1240, Quality Issues for Business Transcription, 1 cr
     BTEC 1320, Word Processing I, 3 cr
     BTEC 2330, Word Processing II, 3 cr
     BTEC 2220, Business Communication, 3 cr
     PHIL 1125, Ethics, 3 cr
     BUS 2210, Legal Environment of Business, 3 cr

TOTAL……………………………………………………..………………..……………….23 Credits

Revised: 03/13/2013

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ADMINISTRATIVE CLINIC ASSISTANT
Diploma

I.   Minnesota Transfer Curriculum (MnTC) General Ed Requirements ……………..…4 Credits
HLTH 1110, CPR/AED for the Professional Rescuer, 1 cr
PSYC 1611, Psychology of Adjustment, 3 cr

II.   RCTC General Education: Allied Studies Requirements……………………………..8 Credits
Area 12: Computer/Information Literacy …………………………………4 credits
BTEC 1010, Computer Basics, 1 cr
BTEC 1320, Word Processing I, 3 cr

Area 13: Career and Personal Development ………………………………. 4 credits
BTEC 2870, Employment Strategies, 1 cr
ENGL 1630, English Grammar for Careers, 3 cr
OR will accept ENGL1117

II.   Professionally-Related Business Requirements ……………………………………… …18 Credits
BTEC 1001, Computer Online Learning, 1 cr
BTEC 1020, Keyboarding for Computers, 1 cr
BTEC 1030, Keyboarding Speed and Accuracy, 1 cr
BTEC 1220, Human Relations in Organizations, 3 cr
BTEC 1610, Medical Terminology and Body Systems, 2 cr
BTEC 1720, Introduction to Administrative Clinic Assistant, 1 cr
BTEC 1730, Patient Procedures for an Administrative Clinic Assistant, 2 cr
BTEC 2600, Microsoft Outlook, 1 cr
BTEC 2614, Customer Service Skills and Concepts, 3 cr
HIMC 2600, Human Diseases for Health Professionals, 3 cr

IV.   Electives……………………………………………………………………………………… 2 Credits
Suggested electives:
BTEC 1550, Introduction to Windows, 2 cr
BTEC 2460, Computer Voice Recognition, 1 cr
BTEC 2880, Developing an Electronic Portfolio, 1 cr

TOTAL ………………………………………………………………………………………32 Credits

Purpose: A career as an Administrative Clinic Assistant involves patient and physician contact, detailed appointment scheduling, phone work, electronic medical record maintenance and tracking. Students will understand the importance of team building, working in a fast paced electronic work environment. Training will involve both classroom training and hands on training. Successful completion of this program would prepare graduate to assume the role of a Patient Service Representative, Patient Appointment Coordinator and Clinical Assistant.

Implementation: Fall 2013

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ADVANCED HOSPITAL NURSING ASSISTANT
Certificate

Program Approved: State of Minnesota Department of Health

Core Requirements ....**16 Credits**
BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
HLTH 1110, CPR for the Health Care Professional, 1 cr
NA 1500, Nursing Assistant Theory and Clinical, 4 cr
    (Approved State of Minnesota Department of Health Curriculum)
NA 1602, Hospital Nursing Assistant, 2 cr
PSYC 1611, Psychology of Adjustment, 3 cr

TOTAL..**16 Credits**

Any student completing the sixteen credit Advanced Hospital Nursing Assistant Certificate is eligible to apply for graduation. Graduation applications are available online or at Admissions and Records.

Note Course Prerequisites:
1) **ENGL 1117**: College level reading and writing skills; appropriate placement skills. Please contact the Welcome Center at (507) 285-7557 for information on Academic Skills Assessments.
2) **PSYC 1611:** College level reading and writing skills.
3) **BTEC 1610:** D2L online tutorial if taking online course.
4) **NA 1500:** Successful completion or concurrent enrollment in ENGL 1117, PSYC 1611, BTEC 1610.
3) **NA 1602:** NA 1500 or equivalent college course.*

*ALL STUDENTS taking NA 1602 are required to take a National Criminal Background check at a cost of $55 during the first week of class. This fee is not included in your tuition. You will need to pay for it by credit card, debit card, or cashier's check.

This program of study may be completed in one (1) semester. Classes may be taken on campus with some course options offered online.

Additional Nursing Assistant Optional Components:
    Long-Term Care Nursing Assistant/Home-Health Aide**
    NA 1500, Nursing Assistant Theory and Clinical, 4 cr
    NA 1501, Home-Health Aide Theory, 1 cr

**Students who successfully complete the Long Term Care Nursing Assistant Theory & Clinical (NA 1500) are eligible to take the State Nursing Assistant Competency Examination. If a student also completes the Home-Health Aide Theory (NA 1501) with the necessary skills and information they are eligible to take the combined State Nursing Assistant/Home-Health Aide Competency Examination.

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Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15.   Students in the program will also be required to complete a National Criminal background Study. Information about completing the background study will be available from program faculty.

PURPOSE: The Nursing Assistant curriculum is designed to prepare students for careers in health care under the supervision of the licensed nurse. The student will learn the basic entry-level nursing skills to work in health care. A Nursing Assistant may be involved in direct patient/resident care or assist with care of the patient/resident unit and/or equipment, charting, record keeping and home-health services. This advanced certificate is designed for the student interested in a fast paced, acute care, hospital environment.

The Nursing Assistant Theory and Clinical may provide a career ladder. Successful completion of Nursing Assistant Theory and Clinical curriculum is a required component of Advanced Hospital Nursing Assistant, Human Services Technician, Practical Nurse, Associate Degree Nursing and Surgical Technology programs.

Revised: 01/12/2012

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AUTOMOBILE MECHANIC
Diploma

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements..................8 Credits**
    Minnesota Transfer Curriculum…………………………………………………3 cr
    A. Three credits from courses meeting the competencies of MnTC Goals 1 – 10.

    B. Five credits from any course(s) other than AMT courses and courses under 1000.
        MATH 1015 Applied Technical Math**……………………...……………5 cr**
        Or other MATH classes

II. **Professional or Technical Credits……………………………………………….…….…61 Credits**
    AMT 1710, Service Theory, 2 cr
    AMT 1720, Electrical Theory, 2 cr
    AMT 1730, Brake Theory, 2 cr
    AMT 1740, Tune-Up Theory, 2 cr
    AMT 1725, Service & Electrical Lab, 3 cr
    AMT 1735, Brakes Lab, 4 cr
    AMT 1745, Ignition Lab, 2 cr
    AMT 1810, Engine Repair Theory, 3 cr
    AMT 1820, Alignment & Suspension Theory, 2 cr
    AMT 1815, Engine Repair Lab, 7 cr
    AMT 1825, Alignment/Suspension Lab, 3 cr
    AMT 2740, Drive Train Theory, 3 cr
    AMT 2742, Manual Drive Train Lab, 4 cr
    AMT 2744, Automatic Transmission/Transaxle Lab, 4 cr
    AMT 2650, Auto Science, 2 cr
    AMT 1900, Welding, 2 cr
    AMT 2750, Engine Performance Theory, 4 cr
    AMT 2752, Engine Performance Lab, 7 cr
    AMT 2770, Heating/Air Conditioning Lab, 3 cr

TOTAL ....69 Credits

PURPOSE: The Automotive Mechanic major is designed to prepare students for careers in the automotive industry where they will inspect, diagnose, repair, and maintain automobiles. Instruction includes courses in vehicle service, brakes, steering and suspension, starting and charging systems, electrical service, engine overhaul, fuel systems, driveline and differential, clutch and transmissions, and air conditioning. With the introduction of on-board computers, instruction is also given in electronics and other high tech areas such as fuel injection and turbo charging. Instruction combines a comprehensive mix of classroom theory and hands-on experience in the auto lab. Job opportunities exist with repair shops, dealerships, fleet owners, and businesses performing specialized service work. Graduates typically start as entry level mechanics. With further education and/or experience, they can go on to specialize in an area such as rebuilding components or they can advance to shop foreman or service manager positions. Some graduates have opened their own repair businesses. **NOTE: Students must test at a Reading 0840 level before enrolling or obtain instructor permission.**

Revised: 02/18/2009

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ART + DESIGN: ART
Associate in Fine Arts

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements……………28 Credits

Goal 1: Written and Oral Communication ……..………….………..………....**7 cr**
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Public Speaking, **OR** COMM 1130, Interpersonal Communication, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences …………………………………………..……...**3 cr**
Credits from MnTC Goal 3

Goal 4: Mathematics/Logical Reasoning ……………………………...…..…..**3 cr**
MATH 1111 Contemporary Concepts in Mathematics, 3 cr
OR higher level mathematics course that meets MnTC Goal 4

Goal 5: History and the Social and Behavioral Sciences …………...…..…..…..**3 cr**
Credits from MnTC Goal 5

Goal 6: The Humanities—the Arts, Literature and Philosophy …………..…....**3 cr**
Credits from MnTC Goal 6

MnTC General Education Requirements……………….…………….....…….**9 cr**
Any MnTC approved courses from the above areas. AFA degree require a minimum
of 24 semester credits in general education and general education credits shall be
selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum.
One additional goal in Goal 7, 8, 9, or 10 must be completed (two credit minimum).

II. Program-Related Requirements……………….………………………………………..**20 Credits**
ART 1111, Art History Survey I, 3 cr
ART 1112, Art History Survey II, 3 cr
ART 1121, 2D Design, 3 cr
ART 1123, 3D Design, 3 cr
ART 1134, Drawing I, 3 cr
ART 2281, Art Portfolio, 2 cr
ART 2292, Directed Studio, 3 cr

II. Electives……………..…………….………………………………………………..**12 Credits**
ART 1120, Computer as Creative Media, 3 cr
ART 1124, Graphic Design I, 3 cr
ART 1130, Digital Art I, 3 cr
ART 1144, Painting I, 3 cr
ART 1164, Ceramics I, 3 cr
ART 1184, Introduction to Digital Photography, 3 cr
ART 2234, Drawing II, 3 cr
ART 2264, Ceramics II, 3 cr
Any 2000 level ART course for transfer as elective credit, 3 cr

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COMMUNITY AND TECHNICAL
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TOTAL………………………………………………………………………...……….**60 Credits**

An articulation agreement has been established between RCTC and Mankato State University. Online studio courses may not transfer, please refer to the articulation agreement. Other colleges may have different transfer requirements.

Revised: 03/13/2013

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BIOINFORMATICS FOUNDATIONS
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…………40 Credits**
    Goal 1: Written and Oral Communication ……..………………………… …11 cr
    COMM 1114, Fundamentals of Public Speaking, 3 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr
    ENGL 1118, Reading and Writing Critically II, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences ……………………………………………………....12 cr
    BIOL 1220, Concepts of Biology, 4 cr
    BIOL 2300, Genetics, 4 cr
    CHEM 1127, Chemical Principles I, 4 cr

    Goal 4: Mathematics/Logical Reasoning ……………..………………..…3 cr
    MATH 1119, Applied Calculus, 3 cr
    OR
    MATH 1127, Calculus I, 5 cr

    Goal 5: History and the Social and Behavioral Sciences ……………..…   …..6 cr
    Choose a minimum of two credits from two different areas from MnTC Goal 5

    Goal 6: Humanities – The Arts, Literature, and Philosophy………… ..… ….6 cr
    Choose a minimum of two credits from two different areas from MnTC Goal 6

    MnTC Electives……………………………………………………..………………2 cr
    Choose credits from approved MnTC courses

II. **Program Core Requirements:…………………………….………………..……..19 Credits**
    COMP 1150, Computer Science Concepts, 3 Cr
    COMP 2243, Programming & Problem Solving, 4 Cr
    COMP 2247, Algorithms and Data Structure, 4 Cr
    MATH 2218, Discrete Mathemathics, 4 cr
    MATH 2350, Introduction to Mathematical Statistics, 4 cr

III. **Open Electives……………………………………………..……..………………………1 Credit**
    Physical Education course recommended

 TOTAL ………………………………………..………………………..………….…..60 Credits

Revised: 08/10/2012; Implementation: Spring 2013

BIOTECHNOLOGY
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements............31 Credits**
   Goal 1: Written And Oral Communication …….………………………………..**7 cr**
   COMM 1114, Fundamentals of Public Speaking, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr

   GOAL 2: CRITICAL THINKING MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences …………………………………………….…..**13 cr**
   BIOL 1220, Concepts of Biology, 4 cr
   BIOL 2021, Microbiology, 4 cr
   PHYS 1117, Introductory Physics , 5 cr

   Goal 4: MATHEMATICS/LOGICAL REASONING ………..………………………**5 cr**
   MATH 1127 Calculus I, 5 cr

   Goal 5: HISTORY AND the SOCIAL AND BEHAVIORAL SCIENCES …………...**3 cr**
   PSYC 1611, Psychology of Adjustment, 3 cr

   Goal 6: HUMANITIES – the ARTS, LITERATURE, and PHILOSOPHY …..……..**3 cr**
   PHIL 1125, Ethics, 3 cr

II. **Professional Requirements………………………………………………………… 29 Credits**
   BIOL 1230, Survey of Life Forms, 4 cr
   BIOL 2300, Genetics, 4 cr
   BIOL 2020, Fundamentals of Biotechnology, 3 cr
   CHEM 1127, Chemical Principles I, 4 cr
   CHEM 1128, Chemical Principles II, 4 cr
   ENGL 1109, Technical Writing, 3 cr
   HCCC 1200, Introduction to Clinical/Research Lab, 2 cr
   PHYS 1118, Introductory Physics II, 5 cr

   TOTAL ……………………………………..…………………………………..…………**60 Credits**

Admissions Requirements:

   1. High school diploma or GED
   2. Earn a grade of "C" or better in high school chemistry, biology, and algebra II or complete BIOL 1101, CHEM 1101, and MATH 0099 or equivalent.
   3. Place at College level reading, writing, and calculus on the College placement test

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Program Objectives: The primary goals of this educational program are:

(i) *To provide a strong liberal arts and sciences education at the two year level and facilitate transfer of the graduates to a four year institution for continuation of higher education.*

(ii) *To provide participants with the technical skills they need* to develop the knowledge, skills and attitudes necessary to find employment as a biotechnology technician. Such technicians find employment in research and clinical labs of healthcare organizations, pharmaceutical and healthcare industry, and research institutions.

(iii) *To provide participants with an understanding of dealing with human subjects, handling human material, patient bill of rights, legal and regulatory research compliance issues, privacy issues etc.; in other words a "patient care" focus.*

BIOTECHNOLOGY A.S. DEGREE, Course sequence

Fall Year 1		Spring Year 1	
ENGL 1117	4 cr	BIOL 1230	4 cr
MATH 1127	5 cr	CHEM 1128	4 cr
CHEM 1127	4 cr	BIOL 2020	3 cr
BIOL 1220	4 cr	HCCC 1200	2 cr
	17 Cr		13 Cr

Fall Year 2		Spring Year 2	
PHYS 1117	5 cr	PHYS 1118	5 cr
BIOL 2021	4 cr	BIOL 2300	4 cr
PSYC 1611	3 cr	COMM 1114	3 cr
ENGL 1109	3 cr	PHIL 1125	3 cr
	15 Cr		15 Cr

Total credits: 60

Revised: 03/19/2012

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BUILDING UTILITIES MECHANIC
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .... 15 Credits
Twelve credits from any MNTC course(s) from the following goals:
Goal 1, Written and Oral Communication, 3 cr (minimum)
Goal 3, Natural Science **OR** Goal 4, Mathematics, 3 cr (minimum)
Goal 5, History and the Social and Behavioral Sciences, 3 cr (minimum)
Goal 6, Humanities - the Arts, Literature and Philosophy, 3 cr (minimum)
Three credits of any additional MNTC courses, 3 cr

II. Professional Program-Related Courses .... 54 Credits

BUM I   BU 1500, Power Plant Theory, 4 cr
BU 1510, Welding Theory, 1 cr
BU 1520, Welding Equipment Repair, 2 cr
BU 1530, Plumbing Theory, 2 cr
BU 1540, Power Plant Operation, 4 cr
BU 1550, Plumbing Lab, 2 cr
BU 1570, Basic Boiler Theory, 1 cr

BUM II   BU 1611, Basic Electricity, 1 cr
BU 1621, Electrical Theory I, 3 cr
BU 1631, Electrical Lab I, 3 cr
BU 1641, Electrical Theory II, 3 cr
BU 1651, Electrical Lab II, 4 cr
BU 1661, National Electric Code and Safety, 2 cr

BUM III   BU 2500, Refrigeration Theory, 3 cr
BU 2506, Refrigeration Lab, 3 cr
BU 2512, Commercial Refrigeration, 3 cr
BU 2518, Commercial Refrigeration Lab, 2 cr

BUM IV   BU 2602, HVAC/Refrigeration Systems Theory, 4 cr
BU 2612, HVAC/Refrigeration Systems Lab, 2 cr
BU 2622, HVAC Control Systems Lab, 2 cr
BU 2632, HVAC Control Systems Theory, 3 cr

TOTAL .... 69 Credits

NOTE: Students must test at Reading 0900 level before enrolling or obtain instructor permission. Students must have tested at appropriate Math level or successfully completed MATH 1015 before beginning BUM II courses or obtain instructor permission.

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Purpose: The Building Utilities Mechanic major is designed to prepare students for careers requiring skills in the operation, maintenance, troubleshooting, and repair of electrical and mechanical equipment found in commercial buildings. Instruction the first year includes courses in boiler operation, electricity, plumbing, tool usage, welding, electrical controls, and programmable controls. Courses in residential and commercial refrigeration, air conditioning, pneumatics, heating and cooling controls, and computerized energy management systems comprise the second year instruction. Graduates usually start at entry level positions in various maintenance operation areas in medical clinics, hospitals, waste to energy plants, power plants, hotels, educational, manufacturing, processing, and industrial facilities. Graduates have been employed as service technicians in the heating/ventilation/air conditioning (H.V.A.C.) field, building trades, and some are self-employed in the H.V.A.C. field.

Revised: 03/27/2012

Rochester COMMUNITY AND TECHNICAL College

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BUILDING UTILITIES MECHANIC
Diploma

I.   **Minnesota Transfer Curriculum (MnTC) General Education Requirements................. 8 Credits**
Eight credits from any course(s) other than BU courses that meet General Education requirements.
Recommended courses include:
MATH 1015, Applied Technical Math, 3 cr
BTEC 1010, Computer Basics, 1 cr
BTEC 1550, Introduction to Windows, 2 cr
BTEC 2870, Employment Strategies, 1 cr

II. **Professional Program-Related Credits ....64 Credits**

BUM I   BU 1500, Power Plant Theory, 4 cr
BU 1510, Welding Theory, 1 cr
BU 1520, Welding Equipment Repair, 2 cr
BU 1530, Plumbing Theory, 2 cr
BU 1540, Power Plant Operation, 4 cr
BU 1550, Plumbing Lab, 2 cr
BU 1570, Basic Boiler Theory, 1 cr

BUM II   BU 1611, Basic Electricity, 1 cr
BU 1621, Electrical Theory I, 3 cr
BU 1641, Electrical Theory II, 3 cr
BU 1631, Electrical Lab I, 3 cr
BU 1651, Electrical Lab II, 4 cr
BU 1661, National Electric Code and Safety, 2 cr

BUM III   BU 2500, Refrigeration Theory, 3 cr
BU 2506, Refrigeration Lab, 3 cr
BU 2512, Commercial Refrigeration, 3 cr
BU 2518, Commercial Refrigeration Lab, 2 cr
BU 2555, Building Utilities Mechanic Co-op, 5 cr

BUM IV   BU 2602, HVAC/Refrigeration Systems Theory, 4 cr
BU 2612, HVAC/Refrigeration Systems Lab, 2 cr
BU 2622, HVAC Control Systems Lab, 2 cr
BU 2632, HVAC Control Systems Theory, 3 cr
BU 2655, Building Utilities Mechanic Co-op, 5 cr

TOTAL ....72 Credits

Optional Courses:
BU 2651, BUM Coop, 1 cr
BU 2661, BUM Coop, 2 cr

NOTE: Students must test at Reading 0900 level before enrolling or obtain instructor permission. Students must have tested at appropriate Math level or successfully completed MATH 1015 before beginning BUM II courses or obtain instructor permission.

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Purpose: The Building Utilities Mechanic major is designed to prepare students for careers requiring skills in the operation, maintenance, troubleshooting, and repair of electrical and mechanical equipment found in commercial buildings. Instruction the first year includes courses in boiler operation, electricity, plumbing, tool usage, welding, electrical controls, and programmable controls. Courses in residential and commercial refrigeration, air conditioning, pneumatics, heating and cooling controls, and computerized energy management systems comprise the second year instruction. In the second year, students are placed with a co-op training sponsor to gain hands-on work experience.

After initial training, students may take the state examination for a special steam engineer's license.

After completion of the second year, students who qualify may take the state examination for second class "A" steam engineer's license and/or refrigeration certification. Graduates usually start at entry level positions in various maintenance operation areas in medical clinics, hospitals, waste to energy plants, power plants, hotels, educational, manufacturing, processing, and industrial facilities. Graduates have been employed as service technicians in the heating/ventilation/air conditioning (H.V.A.C.) field, building trades, and some are self-employed in the H.V.A.C. field.

Revised: 03/27/2012

BUSINESS ADMINISTRATION
Associate in Science

I. **Minnesota Tranfer Curriculum (MnTC) General Education Requirements…Minimum of 30 Credits**

   Goal 1: Written and Oral Communication …..……………………..……….. 7 cr
   COMM 1114, Fundamentals of Speech, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr

   GOAL 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Science ………………………………………..……….6 cr
   Choose two courses with labs from two different areas from MNTC Goal 3

   Goal 4: Mathematics/Logical Reasoning …………………………….……3-5 cr
   MATH 1113, **OR** MATH 1115, **OR** MATH 1117, **OR** MATH 1119, **OR** MATH 1127, 4 cr

   Goal 5: History And The Social And Behavioral Sciences …………….…...11 cr
   ECON 2214, Principles of Microeconomics, 4 cr
   ECON 2215, Principles of Macroeconomics, 4 cr
   Three credits from MnTC Goal 5

   Goal 6: Humanities – The Arts, Literature, And Philosophy ………………….3 cr
   Credits from MnTC Goal 6

II. **Business Core Requirements…………………………….…………………..…………..21 Credits**
   ACCT 2217, Financial Accounting, 4 cr
   ACCT 2218, Managerial Accounting, 4 cr
   BTEC 2350, Microcomputer Business Applications, 3 cr
   BUS 2201, Principles of Marketing, 3 cr
   BUS 2210, Legal Environment of Business, 3 cr
   BUS 2212, Business & Economic Statistics, 4 cr

   Business Administration Emphasis …………………………………………...……………… 9 Credits
   Choose three (3) of the following courses:
   BUS 1101, Introduction to Business, 3 cr
   BUS 2144, Introduction to e-Business, 3 cr
   BUS 2150, Introduction to International Business, 3 cr
   BUS 2214, Retailing
   BUS 2232, Principles of Management, 3 cr
   BUS 2296, Business Internship, 3 cr

   TOTAL …………..……………………………………………………….Minimum of 60 Credits

BUSINESS ADMINISTRATION (Associate in Science), Suggested Course Sequence

Semester I
ACCT 2217, 4 cr
BUS Adm Emphasis Elective, 3 cr
ENGL 1117, 4 cr
General Ed Elective – Math, 3-5 cr

Semester II
ACCT 2218, 4 cr
BUS 2201, 3 cr
BUS Adm Emphasis Elective, 3 cr
COMM 1114, 3 cr
General Education Elective, 3 cr

Semester III
BUS 2212, 4 cr
BUS Adm Emphasis Elective, 3 cr
ECON 2214, 4 cr
General Education Elective, 3 cr

Semester IV
BUS 2210, 3 cr
BTEC 2350, 3 cr
ECON 2215, 4 cr
General Education Elective, 6 cr

Revised: 03/01/2012

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

BUSINESS ADMINISTRATION
Certificate
(Available day or evening)

I.   **Core Requirements**……………………………………………………………… **21 or 22 Credits**
ACCT 2217, Financial Accounting, 4 cr
ACCT 2218, Managerial Accounting, 4 cr
BUS 1101, Introduction to Business,3 cr
BUS 2212, Business & Economic Statistics,   4 cr
BUS 2232, Principles of Management, 3 cr
ECON 1101, Introduction to Economics, 3 cr
OR
ECON 2214, Principles of Economics: Micro, 4 cr

TOTAL …………………….…………………………………………………...…….... **21 or 22 Credits**

COURSE SEQUENCE:

FALL SEMESTER		**SPRING SEMESTER**	
BUS 1101	3 cr	BUS 2212	4 cr
ACCT 2217	4 cr	ACCT 2218	4 cr
ECON 1101	3 cr	BUS 2232	3 cr
OR-			
ECON 2214	4 cr		
Total	**10 or 11 cr**	**Total**	**11 cr**

Revised: 02/18/2009

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

BUSINESS ANALYSIS
Certificate

I. **Core Requirements**...**9 Credits**
BUS 2317, Principles of Business Analysis I, 3 cr
BUS 2318, Principles of Business Analysis II, 3 cr
BUS 2319, Principles of Business Analysis III, 3 cr

TOTAL...…................................**9 Credits**

Business Analysis Certificate Overview:
The Business Analysis Certificate prepares students to analyze the organization and design of businesses, government departments and non-profit organizations. The business analyst's role is described as a liaison among stakeholders in order to understand the structure, policies and operations of an organization and to recommend solutions that enable the organization to achieve its goals. In the past, this position was often outsourced to consultants, but many companies now prefer to use in-house analysts who have in-depth knowledge of their specific industry.

Career Information:
According to the Minnesota Department of Employment and Economic Development (DEED), future demand for business analysts is above average. In the Southeast region of Minnesota, employment in this occupation is projected to increase by 11 percent by 2016. In addition, national data release by the US Bureau of Labor Statistics has growth in this job area reaching 24 percent between 2008 and 2018.

Implementation: Fall 2012

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BUSINESS MANAGEMENT
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements...............**15 Credits**
   Goal 1: Written and Oral Communication ……………………………………**4 cr**
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ....**3 cr**
   Science must include one lab course in Biology, Chemistry, Earth Science or Physics
   OR
   Goal 4: Mathematics/Logical Reasoning ....**3 cr**
   Mathematics must be 1111 college level or above

   Goal 5: History and the Social and Behavioral Sciences ....**3 cr**
   ECON 1101, Introduction to Economics

   Goal 6: Humanities – the Arts, Literature, and Philosophy ....**3 cr**
   Credits from MnTC Goal 6

   Additional General Education Requirements ....**2 cr**
   Students may choose additional elective credits from MnTC Goals 1-10 to meet
   the general education requirements.

II. Business Core Requirements ....**22 Credits**
   BUS 1101, Introduction to Business, 3 cr
   BUS 2101, Personal Finance, 3 cr
   BUS 2150, Introduction to International Business, 3 cr
   BUS 2232, Principles of Management, 3 cr
   BUS 2235, Organizational Dynamics, 3 cr
   ACCT 2217, Financial Accounting, 4 cr
   BTEC 2350, Microcomputer Applications, 3 cr

III. Management Emphasis...**14 Credits**
   BUS 2201, Principles of Marketing, 3 cr
   BUS 2210, Legal Environment of Business, 3 cr
   BUS 2240, Project Management, 3 cr
   BUS 2290, Current Topics in Business, 1 cr
   ACCT 2218, Managerial Accounting, 4 cr

IV. Open Electives ....**9 Credits**
   Suggested electives, but not limited to:
   BUS 1144, Opening & Managing a Business, 3 cr
   BUS 2214, Retailing, 3 cr
   BUS 2215, Salesmanship, 3 cr

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Rochester
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BUS 2296, Business Internship, 2-4 cr
BTEC 2220, Business Communications, 3 cr

TOTAL . ...60 Credits

Purpose: The Business Management Program is designed to provide an overview of the practical and theoretical knowledge needed to help manage organizations. The program is designed to provide opportunities for students to implement and test the skills they learn.

BUSINESS MANAGEMENT (Associate in Applied Science), Suggested Course Sequence

Semester I
ENGL 1117, 4 cr
BUS 1101, 3 cr
BUS 2150, 3 cr
BUS 2232, 3 cr
Math or Science Elective, 3 cr

Semester II
General Education Elective, 2 cr
BUS 2101, 3 cr
BUS 2201, 3 cr
BUS 2210, 3 cr
BUS 2235, 3 cr
BUS 2290, 1 cr

Semester III
ACCT 2217, 4 cr
BTEC 2350, 3 cr
ECON 1101, 3 cr
Open Elective, 4 cr

Semester IV
ACCT 2218, 4 cr
BUS 2220, 3 cr
Humanities & Fine Arts Elective , 3 cr
Open Elective, 5 cr

Revised: 03/01/2012

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

BUSINESS MANAGEMENT
Certificate

I. **Core Requirements**...13 Credits
    BUS 1101, Introduction to Business, 3 cr
    BUS 2214, Retailing, 3 cr
    OR
    BUS 2215, Salesmanship, 3 cr
    BUS 2232, Principles of Management, 3 cr
    ACCT 2217, Financial Accounting, 4 cr

TOTAL..…..........................13 Credits

COURSE SEQUENCE:

Fall Semester	**Spring Semester**
BUS 1101, Introduction to Business, 3 cr	BUS 1101, Introduction to Business, 3 cr
BUS 2214, Retailing, 3 cr	BUS 2215, Salesmanship, 3 cr
BUS 2232, Principles of Management, 3 cr	BUS 2232, Principles of Management, 3 cr
ACCT 2217, Financial Accounting, 4 cr	ACCT 2217, Financial Accounting, 4 cr

Revised: 02/18/09

Rochester
COMMUNITY AND TECHNICAL
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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

BUSINESS MANAGEMENT – MARKETING
Associate in Applied Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements**...............**15 Credits**
   Goal 1: Written and Oral Communication .... **4 cr**
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences .... **3 cr**
   3 credits from MnTC Goal 3 course
   OR
   Goal 4: Mathematics/Logical Reasoning .... **3 cr**
   Mathematics must be 1111 college level or above

   Goal 5: History and the Social and Behavioral Sciences .... **3 cr**
   ECON 1101, Introduction to Economics

   Goal 6: Humanities – the Arts, Literature, and Philosophy .... **3 cr**
   Credits from MnTC Goal 6

   Additional General Education Requirements .... **2 cr**
   Students may choose additional elective credits from MnTC Goals 1-10 to meet the general education requirements.

II. **Business Core Requirements** .... **22 Credits**
   BUS 1101, Introduction to Business, 3 cr
   BUS 2101, Personal Finance, 3 cr
   BUS 2150, Introduction to International Business, 3 cr
   BUS 2232, Principles of Management,3 cr
   BUS 2235, Organizational Dynamics, 3 cr
   ACCT 2217, Financial Accounting, 4 cr
   BTEC 2350, Microcomputer Applications, 3 cr

III. **Marketing Emphasis**... **16 Credits**
   BUS 2144, Introduction to E-Business, 3 cr
   BUS 2201, Principles of Marketing, 3 cr
   BUS 2202, Promotional Strategies3 cr
   BUS 2215, Salesmanship, 3 cr
   BUS 2214, Retailing, 3 cr
   BUS 2290, Current Topics in Business,1 cr

IV. **Open Electives** ....**7 Credits**

Suggested electives, but not limited to:
ACCT 2218, Managerial Accounting, 4 cr
BUS 1144, Opening & Managing a Business, 3 cr
BUS 2227, Business Law I, 3 cr
BUS 2240, Project Management, 3 cr
BUS 2296, Business Internship, 2-4 cr
BTEC 2220, Business Communications, 3 cr

TOTAL ....**60 Credits**

Purpose: This program is designed for students who wish to balance General Education with business-related courses. The program focuses on preparing for careers in sales, advertising, retailing, wholesaling and related fields.

Business Management-Marketing Emphasis, Suggested Program Guide

Semester I	**Semester II**
ENGL 1117, 4 cr	BUS 2150, 3 cr
BUS 1101, 3 cr	BUS 2215, 3 cr
BUS 2101, 3 cr	BUS 2232, 3 cr
BUS 2201, 3 cr	Math or Science Elective, 3 cr
BUS 2214, 3 cr	Open Elective, 3 cr

Semester III	**Semester IV**
ACCT 2217, 4 cr	BUS 2144, 3 cr
BUS 2235, 3 cr	BUS 2290, 1 cr
BTEC 2350, 3 cr	BUS 2202, 3 cr
ECON 1101, 3 cr	Humanities & Fine Arts Elective, 3 cr
General Education Elective, 2 cr	Open Electives, 4 cr

Revised: 03/01/2012

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COMPUTER AIDED DRAFTING TECHNOLOGY
Associate in Applied Science

I.   **Minnesota Transfer Curriculum Courses..** ....16 Credits
     Goal 1: Written and Oral Communication .... *7 cr*
     ENGL 1117 (or higher) Reading and Writing Critically I, 4 cr
     COMM 1114, Fundamentals of Public Speaking **OR** COMM 1130, Interpersonal Communication, 3 Cr

     Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

     Goal 3: Natural Sciences <u>and/or</u>
     Goal 4:   Mathematics/Logical Reasoning .....……………………………………… 3 cr
     Credits from MnTC Goal 3 courses **And/Or** credits from MnTC Goal 4 Mathematics

     Goal 5: History and the Social and Behavioral Sciences ....3 cr
     Credits from MnTC Goal 5

     Goal 6: Humanities – Arts, Literature, and Philosophy ....3 cr
     Credits from MnTC Goal 6

II. **Professional Program-Related**..56 Credits
     CAD 1039, 3D CAD, 4 cr
     CAD 1120, Welding Technology, 2 cr
     CAD 1123, Technical Illustration, 2 cr
     CAD 1145, Mfg Mat'l and Processes I, 3 cr
     CAD 1147, Mfg Mat'l and Processes II, 3 cr
     CAD 1150, CAD Data Communications, 3 cr
     CAD 1200, Product Data Management, 1 cr
     CAD 1220, Engineering Drafting, 3 cr
     CAD 1221, Technical Drafting, 3 cr
     CAD 1222, Dimensioning and Tolerancing, 2 cr
     CAD 1323, Basic Dimensioning, 3 cr
     CAD 2323, Advanced Dimensioning, 3 cr
     CAD 2324, Special Projects I, 2 cr
     CAD 2358, Machine Design, 5 cr
     CAD 2400, Reverse Engineering and Rapid Prototyping, 2 cr
     CAD 2424, Special Projects II, 2 cr
     CAD 2335, Working Drawings and Design, 3 cr
     CAD 2440, CAD Portfolio, 2 cr
     CAD 2458, Product Design, 5 cr
     CAD 2460, Surfacing and Advanced Modeling, 3 cr

     TOTAL...72 Credits

PURPOSE: The CAD Technology major is designed to prepare students for a technical career using Computer Aided Drafting tools and techniques. CAD drafters turn concepts, ideas, and rough sketches into mechanical prints then "prototypes" or finished parts can be fabricated, designed or repaired. The curriculum primarily covers the mechanical disciplines of drafting and design. The CAD courses are taught in state-of-the-art facilities featuring the latest release of **SolidWorks**. Employment opportunities exist in large and small industries. Graduates can advance into positions such as designers, associate engineers, inspectors, supervisors, sales, and purchasing personnel.

Revised: 08/01/2012
Implementation: Spring 2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

COMPUTER AIDED DRAFTING TECHNOLOGY
Diploma

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements** ....10 Credits
    A. **Goal 1: Written and Oral Communication**…………………………………3 cr
        ENGL 1109, Introduction to Technical Communication, 3 cr
        OR
        ENGL 1117, Reading and Writing Critically I, 4 cr

    B. **Other General Education Electives**……………………………………………7 cr
        MATH 1015 (or higher), Applied Technical Math, 3 cr
        Four credits of any course other than CAD, 4 cr

II. **Professional or Technical Credits** ....58 Credits
    CAD 1039, 3D CAD, 4 cr
    CAD 1120, Welding Technology, 2 cr
    CAD 1123, Technical Illustration, 2 cr
    CAD 1145, Mfg Mat'l and Processes I, 3 cr
    CAD 1147, Mfg Mat'l and Processes II, 3 cr
    CAD 1150, CAD Data Communications, 3 cr
    CAD 1200, Product Data Management, 1 cr
    CAD 1220, Engineering Drafting, 3 cr
    CAD 1221, Technical Drafting, 3 cr
    CAD 1222, Dimensioning and Tolerancing, 2 cr
    CAD 1323, Basic Dimensioning, 3 cr
    CAD 2323, Advanced Dimensioning, 3 cr
    CAD 2324, Special Projects I, 2 cr
    CAD 2358, Machine Design, 5 cr
    CAD 2400, Reverse Engineering and Rapid Prototyping, 2 cr
    CAD 2424, Special Projects II, 2 cr
    CAD 2335, Working Drawings & Design, 3 cr
    CAD 2430, Special Fields of Drafting, 2 cr
    CAD 2440, CAD Portfolio, 2 cr
    CAD 2458, Product Design, 5 cr
    CAD 2460, Surfacing and Advanced Modeling, 3 cr

TOTAL..**68 Credits**

PURPOSE: The CAD Technology major is designed to prepare students for a technical career using Computer Aided Drafting tools and techniques. CAD drafters turn concepts, ideas, and rough sketches into mechanical prints then "prototypes" or finished parts can be fabricated, designed or repaired. The curriculum primarily covers the mechanical disciplines of drafting and design. The CAD courses are taught in state-of-the-art facilities featuring the latest release of **SolidWorks.** Employment opportunities exist in large and small industries. Graduates can advance into positions such as designers, associate engineers, inspectors, supervisors, sales, and purchasing personnel.

Revised: 07/01/2012
Implementation: Spring 2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

CHILD DEVELOPMENT
Certificate

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…….…...…4 Credits**
ENGL 1117, Reading and Writing Critically I, 4 cr

II. **Professional Program-Related Courses…………....……………………………………………….15 Credits**
CYFS 1001, Seeing Children and Youth, 3 cr
CYFS 1210, Child Growth and Youth Development, 3 cr
CYFS 1220, Health, Safety, Nutrition, 3 cr
CYFS 1232, Guidance and Group Dynamics, 3 cr
CYFS 1235, Learning and Environments, 3 cr

III. **Electives…………………………… ....3 Credits**

TOTAL ....22 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities.   A list of disqualifying offenses is available at
https://www.revisor.mn.gov/statutes/?id=245C.15 .   Information about completing the background study will be available from program faculty.

Purpose: The Child Development Certificate Program prepares students for assistant teacher or child care aid positions. Students graduating from this program meet the Minnesota Department of Human Services (DHS) requirements for assistant teachers in child care centers. In addition to these education requirements, DHS Rule 3 requires 2080 hours of work experience as a supervised aide or volunteer in order to be hired as an assistant teacher. Graduates of the program may seek further education to earn a degree in early childhood education or take further courses to improve their earning potential and job position.

Revised: 07/01/2012

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CHILD DEVELOPMENT
Diploma

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements.. ....4 Credits**
    ENGL 1117, Reading and Writing Critically I, 4 cr

II. **Professional Program-Related Courses..25 Credits**
    CYFS 1001, Seeing Children and Youth, 3cr
    CYFS 1210, Child Growth and Youth Development, 3 cr
    CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
    CYFS 1232, Guidance and Group Dynamics, 3 cr
    CYFS 1235, Learning and Environments, 3 cr
    CYFS 1310, Infant/Toddler Principles and Practices, 4 cr
    OR
    CYFS 1312, Preschool Principles and Practice, 4 cr
    OR
    CYFS 1314, School-Age Principles and Practice, 4 cr
    OR
    CYFS 2241, Experiential Learning, 4 cr
    CYFS 1320, Observing and Assessing, 3 cr
    CYFS 2810, Practicum I, 3 cr

III. **Electives...3 Credits**

TOTAL ....**32 Credits**

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15.   Information about completing the background study will be available from program faculty.

Purpose: The Child Development Careers major is designed to provide students with a comprehensive, basic curriculum needed to work in careers with children from infancy to twelve years of age in a variety of settings. Opportunities to gain necessary child care skills and competencies are provided by way of observation and practical experience in a well-equipped, on-site child development center for children ages 2-5, as well as classroom lecture/labs and practical experiences in community-based care facilities. Upon graduation students will be directly involved with the guidance and provision of educational/creative experiences appropriate to nursery schools, special education programs, Head Start, elementary schools, or as a provider of in-home care (nanny), or as a licensed family child care provider. A child development assistant also works directly with other trained staff and/or parents. Graduates of the program may seek further education to earn a degree in early childhood education or take further courses to improve their earning potential and job position.

Revised: 07/01/2012

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CLINICAL NEUROPHYSIOLOGY TECHNOLOGY

Associate in Applied Science
An Affiliated Program with the Mayo School of Health Sciences

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements……..25 Credits**
   Goal 1: Written and Oral Communication ....**7 cr**
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ……………………………………….………**12 cr**
   CHEM 1101, Elements of Chemistry, 3 cr
   BIOL 1110, Human Biology, 4 cr
   BIOL 1216, Anatomy & Physiology of the Nervous & Respiratory Systems, 2 cr
   PHYS 1103, Principles of Physics, 3 cr

   Goal 5: History and the Social and Behaviorial Sciences ……………….**3 cr**
   PSYC 1611, Psychology of Adjustment, 3 cr **OR** PSYC 2618, General Psychology, 4 cr

   Goal 6: Humanities - the Arts, Literature and Philosophy ……..……….. **3 cr**
   Recommended:
   PHIL 1135, Bioethics, 3 cr
   OR PHIL 1125, Ethics, 3 cr

II. **Mayo Clinic CNT Core Requirements….……………………………………………56 Credits**
   Months 1-12   Mayo courses:

CNT 1101	Orientation to CNT	3 cr
CNT 1102	CNT Techniques EEG	2 cr
CNT 1103	CNT Techniques NCS	2 cr
CNT 1104	CNT Techniques EP	2 cr
CNT 1105	CNT Techniques Autonomic	2 cr
CNT 1106	CNT Techniques PSG	2 cr
CNT 1110	Instrumentation	2 cr
CNT 1112	Applied Concepts I EEG	2 cr
CNT 1113	Applied Concepts II NCS	2 cr
CNT 1114	Orientation to the Clinical Laboratory	2 cr
CNT 2210	Neurophysiology Lecture Series, Part I	<u>1 cr</u>
	TOTAL	**22 cr**

   Months 13-24

CNT 2211	Neurophysiology Lecture Series, Part II	4 cr
CNT 2220	Clinical Practice EEG I**	3 cr
CNT 2221	Clinical Practice EEG II**	3 cr
CNT 2222	Clinical Practice EEG III***	3 cr
CNT 2230	Clinical Practice NCS I**	3 cr

CNT 2231	Clinical Practice NCS II**	3 cr
CNT 2240	Clinical Practice EP/NCS**	3 cr
CNT 2250	Clinical Practice Autonomic**	3 cr
CNT 2260	Clinical Practice PSG I**	3 cr
CNT 2261	Clinical Practice PSG II**	3 cr
CNT 2270	Clinical Practice Elective*	<u>3 cr</u>
	TOTAL	**34 cr**

TOTAL ....**81 Credits**

CLINICAL NEUROPHYSIOLOGY TECHNOLOGY COURSE SEQUENCE
LENGTH: 24 months

Fall Semester, Year 1 (RCTC and Mayo)
BIOL 1110	Human Biology	4 cr
CHEM 1101	Elements of Chemistry	3 cr
PHIL 1125/1135	Ethics	3 cr
PHYS 1103	Principles of Physics	3 cr
CNT 1101	Orientation to CNT	<u>3 cr</u>
TOTAL		**16 cr**

Spring Semester, Year 1 (RCTC and Mayo)
BIOL 1216	Anatomy & Physiology of the Nervous System, 2 cr	
ENGL 1117	Reading & Writing Critically I	4 cr
PSYC 1611	Psychology of Adjustment	3 cr
or PSYC 2618	General Psychology	4 cr
COMM 1114	Fundamentals of Speech	3 cr
CNT 1102	CNT Techniques EEG	2 cr
CNT 1103	CNT Techniques NCS	2 cr
CNT 1110	CNT Instrumentation	<u>2 cr</u>
TOTAL		**18 cr**

Summer Semester (Mayo)
CNT 1104	CNT Techniques EP	2 cr
CNT 1105	CNT Techniques Autonomic	2 cr
CNT 1106	CNT Techniques PSG	2 cr
CNT 1112	Applied Concepts I	2 cr
CNT 1113	Applied Concepts II	2 cr
CNT 1114	Orientation to the Clinical Laboratory	2 cr
CNT 2210	Neurophysiology Lecture Series, Part I	<u>1 cr</u>
TOTAL		**13 cr**

YEAR 2 These courses will be taken during the Fall, Spring, and Summer Semesters at Mayo
Months 13-24
CNT 2211	Neorophysiology Lecture Series, Part II	4 cr

CNT 2220	Clinical Practice EEG I**	3 cr
CNT 2221	Clinical Practice EEG II**	3 cr
CNT 2222	Clinical Practice EEG III**	3 cr
CNT 2230	Clinical Practice NCS I **	3 cr
CNT 2231	Clinical Practice NCS II**	3 cr
CNT 2240	Clinical Practice EP/NCS**	3 cr
CNT 2250	Clinical Practice Autonomic**	3 cr
CNT 2260	Clinical Practice PSG I **	3 cr
CNT 2261	Clinical Practice PSG II**	3 cr
CNT 2270	Clinical Practice Elective*	3 cr
TOTAL		**34 cr**

** Clinical Hours: 64 hours = 1 semester credit

ADDITIONAL NOTES:
Purpose: This program educates graduates to work under the supervision of physicians to perform tests that assist physicians in the diagnosis and evaluation of diseases of the brain, peripheral and autonomic nervous system and disorders of sleep and wakefulness. The technologist must be able to analyze data online making certain that it is viable and interpretable. Neurodiagnostic studies are performed in a laboratory, emergency room, operating room, intensive care unit, special monitoring units or at the patient's bedside.

The areas of study are electroencephalography, nerve conduction studies, polysomnography, autonomic testing and evoked potentials. Electroencephalography, spontaneous electrical activity of the brain recorded from the scalp, can determine changes in brain activity useful in diagnosing brain disorders. Nerve conduction studies, stimulus-induced responses recorded from peripheral nerves and muscles in the face, arms or legs, test to see how fast and how well the nerves send messages. Polysomnography, spontaneous activity recorded from the lungs, brain, muscle and heart, diagnosis and treats sleep-related disorders such as narcolepsy and sleep apnea. Autonomic testing measures involuntary nervous system function that controls blood pressure, heart rate, sweating and influence pain. Evoked potentials, stimulus induced responses from the sensory system, measures central nerve conduction time in disorders such as multiple sclerosis.

Admission: Students are admitted into the Clinical Neurophysiology Technology Program through the Mayo School of Health Sciences. The application for admission is online and must be obtained from the Mayo School of Health Sciences and submitted no later than **February 1**. The online application may be accessed at http://www.mayo.edu/mshs/cnt-cnt.html.   Following appointment to the program by the Mayo School of Health Sciences, students must apply to RCTC. Admission is competitive. It is based on previous education, work experience, goal statement, letters of reference, and interview.

Program Entrance Requirements:
Prerequisites
High School Graduate
* Required: High school diploma (equivalent acceptable) or be a high school senior who expects to graduate by the time the program begins.
* Preferred: Graduated in the upper one-half of the high school graduating class with a 2.8 GPA or higher.
* Preferred: ACT scores to submit with your application.

Program Entrance Requirements, continued:

Biology* and Chemistry*
- Required: Completed one year of high school biology, or RCTC Biology 1101, or the equivalent college course, with a grade of "C" or better.
- Preferred: Completed one year of high school chemistry, or RCTC Chemistry 1101, or the equivalent college course, with a grade of "C" or better.

Mathematics*
- Required: Completed high school Algebra II, or RCTC Math 0099, or the equivalent college courses, with a grade of "C" or better.

***Science and math prerequisite courses must have been completed within five years of your application to the program**.

College Readiness / Placement
- Required: Students must have academic skills that will allow them to enroll in RCTC Physics 1103 and English Composition 1117. Evidence of your academic readiness for these college-level courses can be demonstrated by adequate ACT scores or by completing the Accuplacer assessment at RCTC. We recommend that students submit both ACT scores and Accuplacer results with your application.

Computer Skills
- Preferred: Competence in keyboarding and basic computer skills. For students without basic computer skills upon entering the program, a computer course may be required.

Job Shadow
- Required: Once you are currently enrolled in or have completed all of the required prerequisites listed above, please schedule a job shadow. Be prepared to show evidence that you have met these prerequisites. To set the job shadow up, contact Program Director Jan Buss at (507) 284-1255 or buss.jan@mayo.edu.

International Applicants
U.S. Citizenship or Permanent Immigrant Status is required for admission to the Clinical Neurophysiology Technology Program.

Proof of completion of a CPR course is required prior to beginning CNT 1114 and must be current through either the American Heart Association Cardiopulmonary Resuscitation & Emergency Cardiac Care for Health Care Provider or the Red Cross Basic Life Support Course.

Registration and Sequence of Courses: This is a 24-month program consisting of 81 credits. During the first two semesters at RCTC, students will take general education courses as well as CNT courses. After that time all the coursework is at the Mayo Medical Center. Course sequences are specified on the Degree Program Sheet.

Program Completion: Those who complete the program will be awarded a Certificate of Completion by Mayo and an Associate in Applied Science Degree by RCTC.

Revised: 11/01/2012; Implementation: Spring 2013

COACHING
Certificate

I. Professional Core Requirements……………...……………………...………..……...**8 Credits**
HLTH 1109, Community CPR/First Aid and Safety, 1 cr
PHED 2249, Prevention and Care of Athletic Injuries, 3 cr
PHED 2271, Coaching Principles, 3 cr
PHED 2297, Field Observation for Coaching, 1 cr

III. Electives …………………………………………………………………………….**2 Credits**
Choose minimum of one:
PHED 2260, Basketball Officiating, 1 cr
PHED 2272, Techniques of Coaching Football, 1 cr
PHED 2273, Techniques of Coaching Volleyball, 1 cr
PHED 2274, Techniques of Coaching Basketball, 1 cr
PHED 2275, Techniques of Coaching Baseball, 1 cr
PHED 2276, Techniques of Coaching Softball, 1 cr
PHED 2277, Techniques of Coaching Soccer, 1 cr
PHED 2278, Techniques of Coaching Wrestling, 1 cr

Choose minimum of one:
PHED 1122, Circuit Training, 1 cr
PHED 1132, Speed and Power Running, 1 cr
PHED 1133, Strength Training for Men and Women, 1 cr
PHED 1189, Boot Camp, 1 cr
PHED 1190, Strength, Agility and Quickness Training for Football Athletes, 1 cr
PHED 1191, Strength, Agility and Quickness Training for Volleyball/Soccer Athletes, 1 cr
PHED 1192, Strength, Agility and Quickness Training for Basketball Athletes, 1 cr
PHED 1193, Strength, Agility and Quickness Training for Wrestling Athletes, 1 cr
PHED 1194, Strength, Agility and Quickness Training for Baseball/Softball Athletes, 1 cr
PHED 2180, Critical Analysis of Football, 1 cr

Total…………………………………………………………………...……...…………**10 Credits**

Revised: 03/13/2013
Implementation: Fall 2013

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COACHING
Diploma

I.   **Minnesota Transfer Curriculum (MnTC) General Education Requirements……..……4 Credits**
MNTC Goal Area 3 – Choose from one of the following:
BIOL 1107, Fundamentals of Anatomy and Physiology, 4 cr
BIOL 1110, Human Biology, 4 cr
BIOL 1127, Principles of Anatomy I, 4 cr
BIOL 1217, Anatomy and Physiology I, 4 cr

II. **Professional Core Requirements……………...…………………..…………..23-24 Credits**
HLTH 1114, Responding to Emergencies, 3 cr
PHED 2249, Prevention and Care of Athletic Injuries I, 3 cr
PHED 2253, Sport Nutrition for Performance, 3 cr
PHED 2252, Sport Psychology, 3 cr
PHED 2261, Officiating Principles, 3 cr
PHED 2271, Coaching Principles, 3 cr
PHED 2270, Intro to Physical Education, 2 cr
OR
PHED 2280, Introduction to Sports Facility Mgmt, 3 cr
PHED 2295, Sport Internship I, 3 cr

III. **Electives …………………………………………………………….…………3-4 Credits**
Choose minimum of one:
PHED 2260, Basketball Officiating, 1 cr
PHED 2272, Techniques of Coaching Football, 1 cr
PHED 2273, Techniques of Coaching Volleyball, 1 cr
PHED 2274, Techniques of Coaching Basketball, 1 cr
PHED 2275, Techniques of Coaching Baseball, 1 cr
PHED 2276, Techniques of Coaching Softball, 1 cr
PHED 2277, Techniques of Coaching Soccer, 1 cr
PHED 2278, Techniques of Coaching Wrestling, 1 cr

Choose minimum of one:
PHED 1122, Circuit Training, 1 cr
PHED 1132, Speed and Power Running, 1 cr
PHED 1133, Strength Training for Men and Women, 1 cr
PHED 1189, Boot Camp, 1 cr
PHED 1190, Strength, Agility and Quickness Training for Football Athletes, 1 cr
PHED 1191, Strength, Agility and Quickness Training for Volleyball/Soccer Athletes, 1 cr
PHED 1192, Strength, Agility and Quickness Training for Basketball Athletes, 1 cr
PHED 1193, Strength, Agility and Quickness Training for Wrestling Athletes, 1 cr
PHED 1194, Strength, Agility and Quickness Training for Baseball/Softball Athletes, 1 cr
PHED 2180, Critical Analysis of Football, 1 cr

Total………………………………………………………………...……...…………31 Credits

Revised: 03/13/2013

Rochester College
COMMUNITY AND TECHNICAL

CODING SPECIALIST
Diploma

I. Professionally Related Business Requirements .... .41 Credits
    BIOL 1107, Fundamentals of Anatomy and Physiology, 4 cr
    BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr
    BTEC 2350 Microcomputer Business Applications, 3 cr
    HIMC 1810, ICD-9-CM Coding I, 3 cr
    HIMC 1820, CPT Coding, 3 cr
    HIMC 1830, Advanced Coding and Reimbursement, 3 cr
    HIMC 1840, Introduction to Health Records, 4 cr
    HIMC 1850, Computerized Health Information, 3 cr
    HIMC 1800, Legal Aspects of Health Information, 3 cr
    HIMC 2010, ICD-10-CM Coding, 3 cr
    HIMC 2020, ICD-10-PCS Coding, 3 cr
    HIMC 2620, Pathophysiology and Pharmacology I, 3 cr
    HIMC 2630, Pathophysiology and Pharmacology II, 3 cr
    HIMC 2835, CCA/CPA Review, 1 cr

    TOTAL ………………………………………………………………………………...…41 Credits

NOTE: PREREQUISITES: This program is offered predominately online. Computer requirements are listed on the RCTC Online web page at http://www.rctc.edu/online/. Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

To be admitted to the program, students must meet admission criteria and complete two (2) applications and return them to RCTC Admissions and Records:
• RCTC Application for admission: http://www.rctc.edu/admissions/html/application_form.html
• Program application
• Admission criteria

Notice of National Criminal Background Check Requirement
Students in the program will be required to complete a National Criminal Background Study. Information about completing the background study will be available from program faculty. Individuals who do not pass the background check will not be allowed to participate in clinical/internship activities.

Coding Diploma Program Full-Time Course Sequence

Semester I	Semester II	Semester III
BIOL 1107, 4 cr	HIMC 1820, 3 cr	HIMC 1830, 3 cr
BTEC 1610, 2 cr	HIMC 1840, 4 cr	HIMC 1800, 3 cr
BTEC 2350, 3 cr	HIMC 2020, 3 cr	HIMC 1850, 3 cr
HIMC 1810, 3 cr	HIMC 2630, 3 cr	HIMC 2010, 3 cr
HIMC 2620, 3 cr		HIMC 2835, 1 cr

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Coding Diploma Program Part-Time Course Sequence

Semester I	**Semester II**	**Semester III**
BIOL 1107, 4 cr	BTEC 2350, 3 cr	HIMC 1810, 3 cr
BTEC 1610, 2 cr	HIMC 1840, 4 cr	HIMC 1820, 3 cr
HIMC 2620, 3 cr	HIMC 2630, 3 cr	HIMC 1850, 3 cr

Semester IV	**Semester V**
HIMC 2010, 3 cr	HIMC 1830, 3 cr
HIMC 2020, 3 cr	HIMC 2835, 1 cr
HIMC 1800, 3 cr	

Revised: 03/13/2013

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COMMUNITY HEALTH WORKER
Certificate

I. CHW Core Requirements .... **14 Credits**

CHW 1000, Community Health Worker Role: Advocacy and Outreach, 2 cr
CHW 1010, Communication Skills and Cultural Competence, 2 cr
CHW 1020, Community Health Worker's Role in Teaching and Capacity Building, 2 cr
CHW 1030, Organization and Resources: Community and Personal Strategies, 1 cr
CHW 1040, Community Health Worker: Coordination, Documentation & Reporting, 1 cr
CHW 1050, Community Health Worker: Legal and Ethical Responsibilities, 1 cr
CHW 1060, Community Health Worker: Internship (96 hours), 2 cr

II. Required Electives .... **2-3 Credits**

Choose from the following electives:

BTEC 1020, Keyboarding for Computers, 1 cr
FYEX 1000, College Success Strategies, 1 cr
COMM 1130, Interpersonal Communication, 3 cr

TOTAL .... **16-17 Credits**

Course Prerequisites:

1) **CHW 1000** • Placement in READ 0900.
2) **CHW 1010** • Successful completion of CHW 1000.
3) **CHW 1020** • CHW 1000, and CHW 1010.
4) **CHW 1030** • CHW 1000, CHW 1010, and CHW 1020.
5) **CHW 1040** • CHW 1000, CHW 1010, CHW 1020, and CHW 1030.
6) **CHW 1050** • CHW 1000, CHW 1010, CHW 1020, CHW 1030, and CHW 1040.
7) **CHW 1055** • CHW 1000, CHW 1010, CHW 1020, CHW 1030, and CHW 1040.
8) **CHW 1060** • CHW 1000, CHW 1010, CHW 1020, CHW 1030, CHW 1040, CHW 1050 and CHW 1055.

PURPOSE: The Community Health Worker performs a broad range of health related functions and plays an important role in bridging the gap between cultures and healthcare systems. A Community Health Worker interacts with health care organizations to increase cultural competence, improve access to health care for racial and ethnic minorities, improve the quality of care for the chronically ill, promote healthy communities, and educate families about access to and use of health care coverage.

Revised: 01/12/2012

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COMPUTER INFORMATION SYSTEMS
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements............37 Credits
   Goal 1: Written and Oral Communication ……..…………………..………11 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr
   ENGL 1118, Reading and Writing Critically II, 4 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences …………………..………………………….....6 cr
   Choose two courses with labs from two different areas from MnTC Goal 3

   Goal 4: Mathematics/Logical Reasoning ……………………………..…..3 cr
   MATH 1119, Applied Calculus for Business & Economics, 3 Cr
   OR
   MATH 1127, Calculus I, 5 Cr

   Goal 5: HISTORY AND the SOCIAL AND BEHAVIORAL SCIENCES ……… ….11 cr
   ECON 2214, Principles of Microeconomics, 4 Cr
   ECON 2215, Principles of Macroeconomics, 4 Cr
   Remaining credits from MnTC Goal 5 courses (other than ECON), 3 cr

   Goal 6: Humanities – The Arts, Literature, Philosophy …………..……...6 cr
   Choose a minimum of two credits from two different areas from MnTC Goal 6

II. Program Core Requirements:……………………….…………………..……..23 Credits
   COMP 1150, Computer Science Concepts, 3 Cr
   COMP 2243, Programming & Problem Solving, 4 Cr
   COMP 2247, Algorithms and Data Structure, 4 Cr
   MATH 2218, Discrete Mathemathics, 4 cr
   MATH 2350, Introduction to Mathematical Statistics, 4 cr
   ACCT 2217, Principles of Accounting I, 4 cr

   TOTAL …………………………….....…………………………..…………..…..60 Credits

Revised: 08/01/2012
Implementation: Spring 2013

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COMPUTER SCIENCE
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements……..…40 Credits**
    Goal 1: Written and Oral Communication ……………………………………..11 cr
COMM 1114, Fundamentals of Speech, 3 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
ENGL 1118, Reading and Writing Critically II, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences ……………………………………………….……6 cr
Choose two courses with labs from two different areas from MnTC Goal 3

    Goal 4: Mathematics/Logical Reasoning …………………………….……….5 cr
MATH 1127, Calculus I, 5 Cr

    Goal 5: History and the Social And Behavioral Sciences……………………6 cr
Choose a minimum of two credits from two different areas from MnTC Goal 5

    Goal 6: Humanities – The Arts, Literature, Philosophy ………….……..….6 cr
Choose a minimum of two credits from two different areas from MnTC Goal 6

    MnTC Electives………………………………………………..……………….6 cr
Choose credits from approved MnTC courses

II. **Program Core Requirements:……………………..……………..………………19-20 Credits**
COMP 1150, Computer Science Concepts, 3 Cr
COMP 2243, Programming & Problem Solving, 4 Cr
COMP 2247, Algorithms and Data Structure, 4 Cr
MATH 2218, Discrete Mathemathics, 4 cr
MATH 2350, Introduction to Mathematical Statistics, 4 cr
OR
MATH 1128, Calculus II, 5 cr

III. **Open Electives……………………………………………..……..………………1 Credit**
Physical Education course recommended

 TOTAL ……………………………………...…………………………..……..………..60 Credits

Revised: 08/01/2012; Implementation: Spring 2013

COMPUTER SKILLS
Certificate

I.   **Core Requirements**………………………………………………………………………..**10 Credits**
     COMP 1112, Introduction to Computers, with Applications, 3 cr
     COMP 1150, Computer Science Concepts, 3 cr
     COMP 2243, Programming and Problem Solving, 4 cr

TOTAL…………………………………………………………………………………..…………**10 Credits**

Revised: 06/30/2005

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CARPENTRY
Diploma

I. Professional Program-Related Courses ....**32 Credits**
  CR 1600, Carpentry Theory I, 3 cr
  CR 1610, Residential Blueprint Reading, 2 cr
  CR 1612, Shop Practice I, 2 cr
  CR 1622, Carpentry Theory ll, 3 cr
  CR 1625, Footings and Foundations, 2 cr
  CR 1623, Rough Framing, 5 cr
  CR 1627, Roof Systems, 2 cr
  CR 1637, Exterior Finishing, 2 cr
  CR 1632, Construction Estimating, 3 cr
  CR 1635, Shop Practice ll, 2 cr
  CR 1636, Interior Finishing, 4 cr
  CR 1638, Exterior Finishing ll, 2 cr

TOTAL ....**32 Credits**

COURSE SEQUENCE:

FALL SEMESTER	SPRING SEMESTER
CR 1600, 3 cr	CR 1622, 3 cr
CR 1610, 2 cr	CR 1632, 3 cr
CR 1612, 2 cr	CR 1635, 2 cr
CR 1637, 2 cr	CR 1636, 4 cr
CR 1623, 5 cr	CR 1625, 2 cr
CR 1627, <u>2 cr</u>	CR 1638, <u>2cr</u>
TOTAL 16 cr	**16 cr**

NOTE: Students must test at Reading 0900 level before enrolling or obtain instructor permission.

PURPOSE: The Carpentry major is designed to prepare students for careers as carpenters in residential and commercial construction, factories, cabinet shops, and building maintenance fields. Instruction includes courses in theory and shop practice in the proper uses of hand and power tools and machines, building footings and foundations, site layout, rough framing, exterior and interior finishing, blueprint reading, and cost estimating. The primary activity of the program is the building of a house. This house building experience includes laying out the house on the lot, building the footing forms, rough framing, shingling the roof, insulating, hanging the drywall, and trimming out the house. About two-thirds of the instruction is spent in the lab working on "mock-ups" or at the job site working on the house. Job opportunities exist with independent homebuilders, commercial contractors, lumberyards, furniture manufacturers, and cabinet making shops. Graduates typically start as entry-level carpenters. With further education and work experience, they can become journeyman carpenters, foremen, or may start their own business.

Revised: 03/01/2012

CLINICAL RESEARCH COORDINATION
Associate in Applied Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements……..25 Credits**
    Goal 1: Written and Oral Communication .... **7 cr**
    COMM 1114, Fundamentals of Public Speaking, 3 cr
    ENGL 1117, Reading & Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences ……………………………………………**7 cr**
    BIOL 1107, Fundamentals of Human A & P, 4 cr
    CHEM 1101, Elements of Chemistry, 3 cr

    Goal 4: Mathematics/Logical Reasoning ……. ………………………….4 cr
    MATH 2208, Fundamentals of Statistics, 4 cr

    Goal 5: History and the Social and Behaviorial Sciences ……………..….4 cr
    PSYC 2618, General Psychology, 4 cr

    Goal 6: Humanities - the Arts, Literature and Philosophy …………….. 3 cr
    PHIL 1135, Bioethics, 3 cr

II. **Professional Education Requirements…………………………………………36 Credits**
    BTEC 1610, Medical Terminology: Body Sys & Diseases, 2 cr
    BUS 2240, Project Management, 3 cr
    HIMC 1840, Introduction to Health Records, 4 cr
    HIMC 1800, Legal Aspects of Health Information, 3 cr
    CRSC 1010** , Foundations of Clinical Research I: Concepts and Theories, 4 cr
    CRSC 1100** , Legal and Regulatory Research Compliance in Clinical Research, 4 cr
    CRSC 2010** , Foundations of Clinical Research II: Applications, 4 cr
    CRSC 2100**, Clinical Research Site Management, 4 cr
    CRSC 3000**, Field Work, 8 cr

    **Courses are held at Mayo School of Health Sciences (MSHS).   All RCTC courses need to be taken either prior to or concurrent with the MSHS courses.

TOTAL …………………………………………………………………..…..……… **61 Credits**

CLINICAL RESEARCH COORDINATION AAS COURSE SEQUENCE
Months 1-24

Fall Semester Year 1		Credits
HIMC	1800	3
HIMC	1840	4
ENGL	1117	4
CRSC	1010**	4
TOTAL		**15**

Spring Semester Year 1		
BIOL	1107	4
MATH	2208	4
BTEC	1610	2
CRSC	2010**	4
		14

Fall Semester Year 2		
PHIL	1135	3
PSYC	2618	4
CRSC	1100**	4
CHEM	1101	3
Total		**14**

Spring Semester Year 2		
BUS	2240	3
COMM	1114	3
CRSC	2100**	4
		10

Summer Session Year 2		
CRSC	3000**	8
Total		**8**

**Courses are held at Mayo School of Health Sciences (MSHS). All RCTC courses need to be taken either prior to or concurrent with the MSHS courses.

Credit Summary

Credit Distribution	# of Credits
General Education	25
Professional Education	26
Fieldwork	8
Total	61

Program Description:
The Clinical Research Coordinator program is a collaboration between RCTC and the Mayo School of Health Sciences (MSHS) at the Mayo Clinic in Rochester, Minnesota.

Clinical Research Coordinators (CRCs), under the direction of a principal investigator, are responsible for the organization, coordination, and overall integrity of a research project. CRC responsibilities include protocol development; screening, recruiting, consenting, enrolling and scheduling participants; collecting data and maintaining databases; managing investigational drugs and devices; and ensuring accuracy of documentation.

This program provides skill-based training, exceptional professional development opportunities and the hands-on experience needed to create a well-rounded, fully competent CRC.

For Additional Information, Contact:
Aleisha Chappell, Education Specialist at (507) 255-7081/email: chappell.aleisha@mayo.edu
Lori Carlson, Program Director at (507) 538-1583/email: carlson.lori@mayo.edu
Nirmala Kotagal, Ph.D., RCTC, Program Advisor at (507) 280-2816/email: nirmala.kotagal@roch.edu

Purpose: The purpose of the Clinical Research Coordinator Program is to:
- produce individuals who are dedicated to safeguarding the rights, well-being and dignity of all research participants.
- educate individuals about the importance of upholding principles of ethical conduct in research to ensure safety and maintain confidentiality of all participants.
- promote clinical research excellence and integrity.
- teach individuals to be committed to the advancement of knowledge through clinical research.
- ensure that individuals are promoting the use of compassion while maintaining research standards.
- provide opportunities for a stimulating learning environment.

Admission Process:
Prospective CRC students must apply for admission and be accepted by RCTC. Then, they must complete the Mayo School of Health Sciences (MSHS) online Application for Admission https://app.applyyourself.com/?id=mayo-ghr. Finally, they must submit a copy of their RCTC Acceptance Letter and official transcripts documenting prerequisite completion to the CRC Program at Coordinator at Mayo School of Health Sciences, *Clinical Research Coordinator Program, Stacy Johnson, CTSA - Plummer 3, 200 First Street SW, Rochester, MN 55905.*

The Mayo application must be submitted no later than April 1st.

Admission Requirements:
- High school diploma or equivalent
- The equivalent of at least High school level biology within last five years
- The equivalent of at least High school algebra II within the past five years or math placement results testing out of MATH 0099: Intermediate Algebra (a score of at least 23 on the Accuplacer)

Registration and Sequence of Courses:
The program is designed to allow full-time students to complete all coursework within the first 24 months. Part time options can be made available. For CRSC 3000, one clinical credit is equivalent to 60 contact hours of work.

Program Completion:
Those who complete the program will be awarded a Certificate of Completion by Mayo School of Health Sciences and an Associate in Applied Science Degree by RCTC.

Revised: 11/08/2012

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

CLINICAL RESEARCH COORDINATION
Diploma

I. **Professional Education Requirements**………………………………………….……….**28 Credits**
    BTEC 1610, Medical Terminology: Body Sys & Diseases, 2 cr
    BUS 2240, Project Management, 3 cr
    HIMC 1840, Introduction to Health Records, 4 cr
    HIMC 1800, Legal Aspects of Health Information, 3 cr
    CRSC 1010** , Foundations of Clinical Research I: Concepts and Theories, 4 cr
    CRSC 1100** , Legal and Regulatory Research Compliance in Clinical Research, 4 cr
    CRSC 2010**, Foundations of Clinical Research II: Applications, 4 cr
    CRSC 2100**, Clinical Research Site Management, 4 cr

II. **Mayo - Field Work**…………………………..……………………………………..……………**8 Credits**
    CRSC 3000**   Field Work, 8 cr

    ****Courses are held at Mayo School of Health Sciences (MSHS).   All RCTC courses need to
    be taken either prior to or concurrent with the MSHS courses.**

TOTAL…………………………………………………………………………..……...……………… **36 Credits**

Program Description:
The Clinical Research Coordination program is a collaboration between RCTC and the Mayo School of
Health Sciences (MSHS) at the Mayo Clinic in Rochester, Minnesota.

Clinical Research Coordinators (CRCs), under the direction of a principal investigator, are responsible
for the organization, coordination, and overall integrity of a research project. CRC responsibilities
include protocol development; screening, recruiting, consenting, enrolling and scheduling
participants; collecting data and maintaining databases; managing investigational drugs and devices;
and ensuring accuracy of documentation.

This program provides skill-based training, exceptional professional development opportunities and
the hands-on experience needed to create a well-rounded, fully competent CRC.

Purpose:
The purpose of the Clinical Research Coordinator Program is to:
- produce individuals who are dedicated to safeguarding the rights, well-being and dignity of all
  research participants.
- educate individuals about the importance of upholding principles of ethical conduct in research
  to ensure safety and maintain confidentiality of all participants.
- promote clinical research excellence and integrity.
- teach individuals to be committed to the advancement of knowledge through clinical research.
- ensure that individuals are promoting the use of compassion while maintaining research
  standards.
- provide opportunities for a stimulating learning environment.

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

CLINICAL RESEARCH COORDINATION DIPLOMA
Course Sequence
Months 1-12

Fall Semester		Credits	Spring Semester		Credits
BTEC	1610	2	BUS	2240	3
HIMC	1840	4	HIMC	1800	3
CRSC	1010**	4	CRSC	2010**	4
CRSC	1100**	4	CRSC	2100**	4
TOTAL		**14**			**14**

Summer Session

CRSC	3000**	8
Total		**8**

**Courses are held at Mayo School of Health Sciences (MSHS). All RCTC courses need to be taken either prior to or concurrent with the MSHS courses.

Credit Summary

Credit Distribution	# of Credits
Professional Education	27
Field Work	8
Total	36

Admission Process:
Prospective CRC students must apply for admission and be accepted by RCTC. Then, they must complete the Mayo School of Health Sciences (MSHS) online Application for Admission https://app.applyyourself.com/?id=mayo-ghr. Finally, they must submit a copy of their RCTC Acceptance Letter and official transcripts documenting prerequisite completion to the CRC Program at Coordinator at Mayo School of Health Sciences, *Clinical Research Coordinator Program, Stacy Johnson, CTSA - Plummer 3, 200 First Street SW, Rochester, MN 55905.*

The Mayo application must be submitted no later than April 1st.

Admission Requirements:
- Associate degree or higher from an accredited institution
- High school diploma or equivalent
- The equivalent of at least High school level biology within last five years
- The equivalent of at least High school algebra II within the past five years or math placement results testing out of MATH 0099: Intermediate Algebra (a score of at least 23 on the Accuplacer)

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

Registration and Sequence of Courses: The program is designed to allow full-time students to complete the program in 12 months. All coursework is completed within two semesters at RCTC. The last three months or 480 hours is the fieldwork experience at the Mayo Clinic. Part time options can be made available. For CRSC 3000, one credit is equivalent to 64 contact hours of work.

Program Completion: At least 1/3 of total credits must be taken @ RCTC in order for a diploma to be awarded. Those who complete the program will be awarded a Certificate of Completion by Mayo and a Diploma by RCTC.

Revised: 11/08/2012

CRIMINAL JUSTICE
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…….……30 Credits**
     Goal 1: Written and Oral Communication ……………………………………..…8 cr
     ENGL 1117, Reading and Writing Critically I, 4 cr
     ENGL 1118, Reading and Writing Critically II, 4 cr

     Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

     Goal 3: Natural Sciences ………...………….…………………..……..3 cr
     3 credits from MnTC Goal 3 courses

     Goal 4: Mathematics/Logical Reasoning …...……………………………..3 cr
     MATH 1111 Contemporary Concepts in Mathematics, 3 cr
     Or higher level Math course

     Goal 5: History and the Social and Behavioral Sciences …………..…….…12 cr
     SOC 1614, Introduction to Sociology, 3 cr
     PSYC 2618, General Psychology, 4 cr
     SOC 2625, Minority Group Relations, 3 cr

     Three additional credits from MnTC Goal 5

     Goal 6: Humanities—the Arts, Literature, Philosophy …...…………..………3 cr
     Credits from MnTC Goal 6

     Electives: MAY BE MET MYANY COURSE IN MNTC 1-10 GOALS…..…….…....1 cr

II. **Professionally-Related Requirements……………………………………...…….…30 Credits**
     CRJU 1305, Introduction to Criminal Justice, 3 cr
     CRJU 1308, Introduction to Corrections, 3 cr
     LAWE 1112, Introduction to Criminal Investigations, 4 cr
     LAWE 2117, Minnesota Criminal Statutes, 3 cr
     LAWE 2120, Human Behavior for Law Enforcement, 2 cr
     LAWE 2122, Criminal Procedure, 3 cr
     LAWE 2127, Juvenile Law & Procedures, 3 cr
     CRJU 2310, Special Topics in Criminal Justice, 3 cr
     CRJU 2315, Community Corrections, 3 cr
     CRJU 2320, Ethics in Criminal Justice, 3 cr

Total…………………………………………………………………………..………60 Credits

Revised: 03/01/2012

CUSTOMER SERVICE ADMINISTRATIVE SPECIALIST
Diploma

I. **RCTC General Education: Allied Studies Requirements**………………………….....…11 Credits
    Goal 1: Written and Oral Communication ……..……………………….…..3 cr

    Area 12: Computer/Information Literacy .... 4 cr
    BTEC 1510, Internet Applications, 2 cr
    BTEC 1550, Introduction to Windows, 2 cr

    Area 13: Career and Personal Development .... 4 cr
    BTEC 2870, Employment Strategies, 1 cr
    ENGL 1630, English Grammar for Careers, 3 cr

II. **Professionally-Related Business Requirements**... ...21 Credits
    BTEC 1020, Keyboarding for Computers,1 cr
    BTEC 1220, Human Relations in Organizations,3 cr
    BTEC 2200, Information Resource Management, 3 cr
    BTEC 2220, Business Communications, 3 cr
    BTEC 2350, Microcomputer Business Applications, 3 cr
    BTEC 2450, PowerPoint, 1 cr
    BTEC 2600, Microsoft Outlook, 1 cr
    BTEC 2614, Customer Service Skills and Concepts, 3 cr
    BTEC 2615, Planning & Forecasting Based on Customer Service, 2 cr
    BTEC 2840, Internship, 2 cr
    BTEC 2880, Developing an Electronic Portfolio, 1 cr

III. **Electives**…………………………………………………………………………………….1 Credit
    Suggested Electives:
    BTEC 1030, Keyboarding Speed/Accuracy, 1 cr
    BTEC 2460, Computer Voice Technology, 1 cr

TOTAL ....33 Credits

Purpose: This program is designed to prepare students for customer service positions in a wide variety of businesses. The customer service administrative specialist is trained in being able to help in all areas of customer service providing technical information and services to external and internal customers in person or over the phone. A specialist will handle complicated requests where there are not always clear procedural responses. Customer service administrative specialists will rely on research beyond existing procedures. They will design and recommend changes in procedures to accommodate changes in programs and general guidelines.

Revised: 03/13/2013

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CUSTOMER SERVICE OFFICE ASSISTANT
Certificate

I. **RCTC General Education: Allied Studies Requirements** ....1 Credit
    Area 13: Career and Personal Development
    BTEC 2870, Employment Strategies,1 cr

II. **Professionally-Related Business Requirements**... ...15 Credits
     BTEC 1010, Computer Basics,1 cr
     BTEC 1020, Keyboarding for Computers,1 cr
     BTEC 1220, Human Relations in Organizations, 3 cr
     BTEC 1550, Introduction to Windows, 2 cr
     BTEC 2220, Business Communications, 3 cr
     BTEC 2600, Microsoft Outlook, 1 cr
     BTEC 2614, Customer Service Skills and Concepts, 3 cr
     BTEC 2880, Developing an Electronic Portfolio, 1 cr

TOTAL…………………………………………………………………………………………16 Credits

Purpose: This program is designed to prepare students for customer service positions in a wide variety of businesses. The customer service office assistant is trained for administrative support work providing a variety of detailed procedural program information and services to external and internal customers in person or over the phone. A customer service office assistant will answer questions and resolve customer's problems by analyzing, summarizing, and applying multiple procedures and guidelines.

Revised: 03/13/2013

Rochester
COMMUNITY AND TECHNICAL
College

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

CARDIOVASCULAR INVASIVE SPECIALIST
Associate in Applied Science

**An Affiliated Program with the
Mayo School of Health Sciences**

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements................22 Credits**
Goal 1: Written and Oral Communication .... **4 cr**
ENGL 1117, Reading & Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .... **15 cr**
CHEM 1117, General Chemistry, 4 cr
BIOL 1217, 1218, Anatomy and Physiology I & II, 8 cr
PHYS 1103, Principles of Physics, 3 cr

Goal 6: Humanities – the Arts, Literature, and Philosophy .... **3 cr**
Recommended: PHIL 1135, Bioethics, 3 cr
OR PHIL 1125, Ethics, 3 cr

II. **Mayo CVIS Core Requirements...41 Credits**
YEAR 1: August – May (All courses are Mayo courses).
CVIS 1010, Introduction to Cardiology, 2 cr
CVIS 1020, Introduction to Electrocardiography, 2 cr

YEAR 2: June - May
CVIS 2010, Cardiovascular Physiology & Pathophysiology, 4 cr
CVIS 2020, Invasive Cardiology I, 5 cr

CVIS 2030, Cardiovascular Pharmacology, 2 cr
CVIS 2021, Invasive Cardiology II, 5 cr
CVIS 2040, Clinical, 6 cr

CVIS 2060, Diagnostic Imaging and Fluoroscopy, 3 cr

CVIS 2070, Internship, 12 cr

TOTAL ....**63 Credits**

REGISTERED CARDIOVASCULAR INVASIVE SPECIALIST COURSE SEQUENCE
LENGTH: 21 months

Fall Semester (RCTC & Mayo)		**Spring Semester (RCTC & Mayo)**	
BIOL 1217	4 cr	BIOL 1218	4 cr
CHEM 1117	4 cr	ENGL 1117	4 cr
PHYS 1103	3 cr	PHIL 1125/1135	3 cr
CVIS 1010	2 cr	CVIS 1020	2 cr
TOTAL	**13 cr**	TOTAL	**13 cr**

TOTAL **(YEAR 1)**   **26 cr**

YEAR 2   June-August (Summer Session)
CVIS 2010   4 cr
CVIS 2020   5 cr
CVIS 2060   3 cr

YEAR 2 August-December (Fall Semester)
CVIS 2030   2 cr
CVIS 2021   5 cr
CVIS 2040**   6 cr

YEAR 2 January-May (Spring Semester)
CVIS 2070**   12 cr

TOTAL **(YEAR 2)**   **37 cr**

** Clinical Hours = 64 hours = 1 semester credit

ADDITIONAL NOTES:
Purpose: This program educates graduates to work in collaboration and under the supervision of physicians to assist with the preparation and to perform diagnostic and therapeutic invasive cardiology procedures. The technologist must have the technical skills and competence to assist with these invasive procedures. Invasive cardiovascular procedures are performed in a clinical cardiovascular laboratory environment.

The areas of study are cardiovascular anatomy and physiology, cardiovascular pathophysiology, electrocardiography, cardiovascular pharmacology, diagnostic angiography, interventional angiography, electrophysiology, cardiac pacing, cardiovascular hemodynamics, valvular assessment, pediatric/congenital heart disease assessment, cardiac/coronary physiology assessment, x-ray and radiation safety, and instrumentation and electronics associated with the cardiac laboratory environment.

Cardiovascular anatomy and physiology and pathophysiology concentrate on the structures, functions, and disease processes of the heart. Angiography and interventional cardiology concentrate on the specific entities of coronary anatomy and treatment(s) for various disease entities of the heart. The cardiac electrical system and its diagnosis and treatment(s) are the areas concentrated on in electrophysiology and cardiac pacing. Advanced cardiac assessment (i.e.: hemodynamics, coronary physiology, cardiac valve study, congenital heart disease, etc.) concentrate on in-depth cardiovascular anatomical and physiological data. Instrumentation, electronics, and x-ray basics concentrate on the radiation and electrical processing and safety in the clinical cardiovascular laboratory setting.

Admission: Students are admitted into this program through the Mayo School of Health Sciences Cardiovascular Invasive Specialist Program. The application for admission to the CVIS Program, Mayo School of Health Sciences must be obtained online (http://www.mayo.edu/mshs/cis-cis-application.html) or from the Mayo School of Health Sciences and submitted no later than March 1. Following appointment to the program by the Mayo School of Health Sciences, students must apply to RCTC. **Admission is competitive. It is based on previous education, work experience, goal statement, letters of reference, and an interview.   Science and math courses must be completed within the previous five years.**

Program Entrance Requirements: (1) High School diploma or the equivalent; (2) Basic computer competence or keyboarding; (3) High School biology and chemistry are required, High School physics is recommended, or completion of the RCTC or college transfer equivalents; (4) High School algebra II and placement at an algebra course beyond this class on a college placement test or completion of RCTC MATH 0099 or the equivalent; (5) graduation in the upper one-half of the high school graduating class with a 2.75 GPA or better. The science and math prerequisites must be taken within the past five years prior to application. (6) College level reading skills and writing readiness as tested by ASAP or prior college course work; (7) Proof of completion of a CPR course is required prior to beginning CVIS 1010 and must be current through either the American Heart Association Cardiopulmonary Resuscitation & Emergency Cardiac Care for Health Care Provider.

Registration and Sequence of Courses: This is a 21-month program consisting of 62 credits. During the first two semesters at RCTC, students will take general education courses as well as CVIS courses. *(All Year 1 courses must be completed before proceeding into Year 2 course work at Mayo).* After that time all the coursework is at the Mayo Medical Center – St. Mary's Hospital campus and at Mayo affiliated sites. Course sequences are specified on the Degree Program Sheet.

Program Completion: Those who complete the program will be awarded a Certificate of Completion by the College of Medicine-Mayo Clinic and the Mayo School of Health Sciences, and an Associate in Applied Science Degree by RCTC.

Revised: 03/22/2012

CHILD, YOUTH, AND FAMILY STUDIES
Associate in Applied Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements ....16 Credits**
    Goal 1: Written and Oral Communication ....minimum of 4 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences
    Three credits from MnTC Goal 3
    OR
    Goal 4: Mathematics/Logical Reasoning ....minimum of 3 cr
    Three credits from MnTC Goal 4

    Goal 5: History and Social and Behavioral Sciences...................minimum of 3 cr
    Three credits from MnTC Goal 5

    Goal 6: The Humanities – The Arts, Literature and Philosophy..minimum of 3 cr
    Three credits from MnTC Goal 6

    MnTC Electives………………….……………………………………………………3 cr
    Any course that meets MnTC requirements

II. **Professional Core...41 Credits**
    CYFS 1001, Seeing Children and Youth, 3cr
    CYFS 1210, Child Growth and Youth Development, 3 cr
    CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
    CYFS 1232, Guidance and Group Dynamics, 3 cr
    CYFS 1235, Learning and Environments, 3 cr
    CYFS 1320, Observing and Assessing, 3 cr
    CYFS 2101, Child and Youth Issues, 4 cr
    CYFS 2600, Professional Leadership, 3 cr
    CYFS 2630, Children and Youth with Special Needs, 3 cr
    CYFS 2640, Program Planning, 3 cr
    CYFS 2810, Practicum I, 3 cr
    CYFS 2840, Practicum II, 3 cr
    Choose one of the following methods courses:
    CYFS 1310, Infant/Toddler Principles and Practices, 4 cr **OR**
    CYFS 1312, Preschool Principles and Practices, 4 cr **OR**
    CYFS 1314, School-Age Principles and Practices, 4 cr **OR**
    CYFS 2241, Experiential Learning, 4 cr

III. **Program Electives...3 Credits**
    Choose from:
    CYFS 2002, Introduction to Youth Work, 3 cr
    CYFS 2540, Supporting Children's Mental Health, 3 cr **OR**

CYFS 2570, Multicultural Learning Experiences, 3 cr **OR**
CYFS 2580 Creative Development Experiences, 3 cr

TOTAL...**60 Credits**

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities.

A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Revised: 07/01/2012
Implementation: Spring 2013

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CHILD, YOUTH, AND FAMILY STUDIES
Associate in Applied Science with an Emphasis in Diversity

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements ....16 Credits**
    Goal 1: Written and Oral Communication ....minimum of 4 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences
    Three credits from MnTC Goal 3
    OR
    Goal 4: Mathematics/Logical Reasoning ....minimum of 3 cr
    Three credits from MnTC Goal 4

    Goal 5: History and Social and Behavioral Sciences...................minimum of 3 cr
    Three credits from MnTC Goal 5

    Goal 6: The Humanities – The Arts, Literature and Philosophy..minimum of 3 cr
    Three credits from MnTC Goal 6

    MnTC Electives…………………..………………………………………………3 cr
    Any course that meets MnTC requirements

II. **Professional Core...31 Credits**
    CYFS 1001, Seeing Children and Youth, 3 cr
    CYFS 1210, Child Growth and Youth Development, 3 cr
    CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
    CYFS 1232, Guidance and Group Dynamics, 3 cr
    CYFS 1235, Learning and Environments, 3 cr
    CYFS 1320, Observing and Assessing, 3 cr
    CYFS 2101, Child and Youth Issues, 4 cr
    CYFS 2600, Professional Leadership, 3 cr
    CYFS 2810, Practicum I, 3 cr
    CYFS 2840, Practicum II, 3 cr

III. **Emphasis in Diversity...9 Credits**
    CYFS 2570, Multicultural Learning Experiences, 3 cr
    CYFS 2640, Curriculum Planning, 3 cr

    Choose one of the following:
    COMM 2100, Intercultural Communication, 3 cr
    HUM 1190, Native American Studies, 3 cr
    SOC 2625, Minority Group Relations, 3 cr
    SPAN 1001, Introduction to Hispanic Cultures, 3 cr
    SPAN 1101, Beginning Spanish, 3 cr

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IV. Program Electives..**4 Credits**

    Choose one of the following:
    CYFS 1310, Infant Toddler Principles and Practices, 4 cr
    CYFS 1312, Preschool Principles and Practices, 4 cr
    CYFS 1314, School-Age Principles and Practices, 4 cr

TOTAL..**60 Credits**

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Implementation: Spring 2013

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CHILD, YOUTH, AND FAMILY STUDIES
Associate in Applied Science with an Emphasis in Inclusion and Special Needs

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements ....16 Credits**
Goal 1: Written and Oral Communication ....minimum of 4 cr
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences
Three credits from MnTC Goal 3
OR
Goal 4: Mathematics/Logical Reasoning ....minimum of 3 cr
Three credits from MnTC Goal 4

Goal 5: History and Social and Behavioral Sciences...................minimum of 3 cr
Three credits from MnTC Goal 5

Goal 6: The Humanities – The Arts, Literature and Philosophy..minimum of 3 cr
Three credits from MnTC Goal 6

MnTC Electives…………………………………………………………………………3 cr
Any course that meets MnTC requirements

II. **Professional Core...31 Credits**
CYFS 1001, Seeing Children and Youth, 3 cr
CYFS 1210, Child Growth and Youth Development, 3 cr
CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
CYFS 1232, Guidance and Group Dynamics, 3 cr
CYFS 1235, Learning and Environments, 3 cr
CYFS 1320, Observing and Assessing, 3 cr
CYFS 2101, Child and Youth Issues, 4 cr
CYFS 2600, Professional Leadership, 3 cr
CYFS 2810, Practicum I, 3 cr
CYFS 2840, Practicum II, 3 cr

III. **Emphasis in Inclusion and Special Needs..10 Credits**
CYFS 2540, Supporting Children's Mental Health, 3 cr
CYFS 2630, Children and Youth With Special Needs, 3 cr

Choose one of the following:
CYFS 1310, Infant/Toddler Principles and Practices, 4 cr
CYFS 1312, Preschool Principles and Practices, 4 cr
CYFS 1314, School-Age Principles and Practices, 4 cr
CYFS 2241, Experiential Learning, 4 cr

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IV. Program Electives..**3 Credits**

    Choose one of the following:
    CYFS 2002, Introduction to Youth Work, 3 cr
    CYFS 2540, Supporting Children's Mental Health, 3 cr **OR**
    CYFS 2570, Multicultural Learning Experiences, 3 cr **OR**
    CYFS 2580, Creative Development Experiences, 3 cr

TOTAL..**60 Credits**

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Revised: 07/01/2012
Implementation: Spring 2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

CHILD, YOUTH, AND FAMILY STUDIES
Associate in Applied Science with an Emphasis in Youth Studies

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements ....15 Credits**
Goal 1: Written and Oral Communication ....minimum of 4 cr
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences
Three credits from MnTC Goal 3
OR
Goal 4: Mathematics/Logical Reasoning ....minimum of 3 cr
Three credits from MnTC Goal 4

Goal 5: History and Social and Behavioral Sciences...................minimum of 3 cr
Three credits from MnTC Goal 5

Goal 6: The Humanities – The Arts, Literature and Philosophy..minimum of 3 cr
Three credits from MnTC Goal 6

MnTC Electives………………..………………………………………………………2 cr
Any course that meets MnTC requirements

II. **Professional Core...31 Credits**
CYFS 1001, Seeing Children and Youth, 3 cr
CYFS 1210, Child Growth and Youth Development, 3 cr
CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
CYFS 1232, Guidance and Group Dynamics, 3 cr
CYFS 1235, Learning and Environments, 3 cr
CYFS 1320, Observing and Assessing, 3 cr
CYFS 2101, Child and Youth Issues, 4 cr
CYFS 2600, Professional Leadership, 3 cr
CYFS 2810, Practicum I, 3 cr
CYFS 2840, Practicum II, 3 cr

III. **Emphasis in Youth Studies……………...11 Credits**
CYFS 1314, School Age Principles and Practices, 3 cr
CYFS 2002, Introduction to Youth Work, 4 cr
CYFS 2241, Experiential Learning, 4 cr

IV. **Program Electives...3 Credits**

Choose one of the following:
CYFS 2640, Curriculum Planning, 3 cr
CYFS 2630, Children and Youth With Special Needs, 3 cr

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TOTAL..60 Credits

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YOUTH WORK
Certificate

I. **Program-Related Courses**………………………..………...14 Credits
   CYFS 1001, Seeing Children and Youth, 3 cr
   CYFS 2002, Introduction to Youth Work, 3 cr
   CYFS 2201, Child and Youth Issues, 4 cr
   CYFS 2241, Experiential Learning, 4 cr

II. Child Development Electives…………..3 Credits

TOTAL ....17 Credits

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Purpose: The Youth Work Certificate Program prepares students to become youth service workers and youth development practitioners in a wide variety of settings. Students may combine the Youth Work Certificate with the Associate of Arts degree in Liberal Studies and seek further education to earn a degree in youth studies, child and youth studies, or youth ministry.

Implementation: Spring 2012

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DENTAL ASSISTANT
Associate in Applied Science

Program Accreditation: American Dental Association, Commission on Dental Accreditation, in compliance with the standards set forth by the ADA Council on Dental Education.

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…… ……17 Credits**
    Goal 1:   Written and Oral Communications …………………..………..…… 7 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr
    COMM 1114, Fundamentals of Speech **OR** COMM 1130, Interpersonal Communications, 3 cr

    Goal 2: Critical Thinking (CT) MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3:   Natural Sciences ………………………… ..…………..…………4 cr
    BIOL 1110, Human Biology, 4 Cr

    Goal 5:   History and the Social and Behavioral Sciences …..………...…..… 3 cr
    PSYC 1611, Psychology of Adjustment, 3 cr **OR** PSYC 2618, General Psychology, 4 cr

    Goal 6:   Humanities – The Arts, Literature, Philosophy …..……………… 3 cr
    Credits from MnTC Goal 6

II. **Professional Courses ....47 Credits**
    DA 1200, Dental Communications, 3 cr
    DA 1210, Dental Science I, 3 cr
    DA 1215, Dental Practice Management, 2 cr
    DA 1220, Chairside Assisting I, 6 cr
    DA 1225, Dental Infection Control, 2 cr
    DA 1230, Preventive Dentistry, 2 cr
    DA 1250, Dental Science II, 3 cr
    DA 1255, Dental Materials, 4 cr
    DA 1260, Chairside Assisting II, 4 cr
    *DA 1265, Expanded Functions, 7 cr
    *DS 1300, Dental Radiology, 3 cr
    *DA 1270, Expanded Functions II, 1 cr
    *DA 1280, Dental Assisting Internship, 7 cr

(*Students must show current certification in either American Red Cross: CPR for the Professional Rescuer or American Heart Association: BLS Healthcare Provider to enroll in this course. The certification will need to remain active throughout the final semester in Dental Assisting.)

TOTAL ....64 Credits

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Notice of Minnesota Background Study Requirement
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Purpose: The Dental Assistant major is designed to provide the student with the technical knowledge, manual skills, clinical experiences, communication skills, and positive attitudes toward work required to make the graduate a valuable member of the dental health care profession.

The dental assistant may assist the dentist at chairside, perform expanded functions and dental laboratory procedures, provide personal oral care instruction, or function as a dental receptionist/ dental office manager. The program prepares the student to function in both general and specialty dental practices.

Clinical experience is obtained in the technically current dental clinic. The clinic has twelve operatories equipped for four-handed dentistry, a recirculation/sterilization room, a darkroom for processing x-rays, and a complete dental laboratory. Patients come to the dental clinic for tooth polishing, fluoride treatments, dental x-rays, pit and fissure sealants, and personal oral care instruction. A dentist is on staff to aid in the direct instruction and supervision of students, along with dentists from the community who give guest presentations. In the final semester of the program, students will further their clinical experience through three assigned internships in different dental offices in southeastern Minnesota.

Upon successful completion of the Dental Assistant Program, graduates are eligible to sit for the Minnesota Licensing Examination for Dental Assistants and the National Certification Examination for Dental Assistants.

For more information on program admission requirements, please see the department website at http://www.rctc.edu/program/da/admission.html.

Revised: 03/01/2012

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DENTAL ASSISTANT:
Expanded Functions Option
Certificate

Program Approval: Expanded Functions curriculum is approved by the Minnesota Board of Dentistry.

I. **Professional Core……………………………..…………………………….……….. 13 Credits**
DA 1225, Dental Infection Control, 2 cr
*DA 1265, Expanded Functions I, 7 cr
* DS 1300, Dental Radiology, 3 cr
*DA 1270, Expanded Functions II, 1 cr

(* Students must show current certification in either American Red Cross: CPR for the Professional Rescuer or American Heart Association: BLS Healthcare Provider to enroll in this course. The certification will need to remain active throughout the final semester in Dental Assisting.)

TOTAL………………………….. ....**.13 Credits**

Notice of Minnesota Background Study Requirement
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https://www.revisor.mn.gov/statutes/?id=245C.15.   Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

Purpose:
This certificate program focuses specifically on Minnesota Expanded Functions for Dental Assistants. Approved curriculum includes academic and laboratory/clinical experience in all Minnesota Dental Assistant Expanded Functions. For entry into this certificate program, the applicant must currently be a Certified Dental Assistant, certified by the Dental Assisting National Board, Inc. and hold a current CPR/First Aid Certificate from the American Red Cross. Upon successful completion of the certificate requirements, the student is eligible to take the Minnesota Licensing Examination for Dental Assistants.

Clinical experience is obtained in the technically current dental clinic. The clinic has twelve operatories equipped for four-handed dentistry, a recirculation/sterilization room, a darkroom for processing x-rays, a dental reception area, and a complete dental laboratory. Patients come to the dental clinic for tooth polishing, fluoride treatments, dental x-rays, pit and fissure sealants and preventive oral care instruction. A dentist is on staff to aid in the direct instruction and supervision of students.

Revised: 08/01/2012

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

DENTAL ASSISTANT
Diploma

Program Accreditation: American Dental Association, Commission on Dental Accreditation, in compliance with the standards set forth by the ADA Council on Dental Education.

I. **Professional Requirements**……………………………………………………....…47 Credits
DA 1200, Dental Communications,3 cr
DA 1210, Dental Science I, 3 cr
DA 1215, Dental Practice Management, 2 cr
DA 1220, Chairside Assisting I, 6 cr
DA 1225, Dental Infection Control, 2 cr
DA 1230, Preventive Dentistry, 2 cr
DA 1250, Dental Science II, 3 cr
DA 1255, Dental Materials, 4 cr
DA 1260, Chairside Assisting II, 4 cr
*DA 1265, Expanded Functions I, 7 cr
*DS 1300, Dental Radiology, 3 cr
*DA 1270, Expanded Functions II, 1 cr
*DA 1280, Dental Assisting Internship, 7 cr
(* Students must show current certification in either American Red Cross: CPR for the Professional Rescuer or American Heart Association: BLS Healthcare Provider to enroll in this course. The certification will need to remain active throughout the final semester in Dental Assisting.)

TOTAL………………………………………………………………………...…………47 Credits

Notice of Minnesota Background Study Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background study will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

Purpose: The Dental Assistant major is designed to provide the student with the technical knowledge, manual skills, clinical experiences, communication skills, and positive attitudes toward work required to make the graduate a valuable member of the dental health care profession. The Dental Assistant Program may be completed in one year as a full-time student, or in two years as a part-time student.

The dental assistant may assist the dentist at chairside, perform expanded functions and dental laboratory procedures, or act as a receptionist or an office manager. The program prepares the student to function in both general and specialty dental practices.

Clinical experience is obtained in the technically current dental clinic. The clinic has twelve operatories equipped for four-handed dentistry, a recirculatory/sterilization room, a darkroom for processing x-rays, and a complete dental laboratory. Patients come to the dental clinic for tooth

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polishing, fluoride treatments, dental x-rays, pit and fissure sealants and personal oral care instruction. A dentist is on staff to aid in the direct instruction and supervision of students, along with dentists from the community who give guest presentations. In the summer semester, students will further their clinical experience through three assigned internships in different dental offices in southeastern Minnesota.

Revised: 08/01/2012

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

DANCE
Certificate

I. **Core Requirements**..**17 Credits**
   DANC 1101, Ballet I, 3 cr
   DANC 1102, Modern I, 3 cr
   DANC 1103 , Jazz I, 3 cr
   DANC 1125 , Dance Appreciation, 3 cr
   PHED 1103, Social Dance, 2 cr
   HUM, Students may select any 3 credit MnTC Arts/Humanities course, 3 cr

II. **Open Electives**……………………………………………………………………**6 Credits**
   Students may select any MnTC courses from 2 different disciplines

TOTAL……………….. ....**23 Credits**

PURPOSE: The Fine Arts Dance Certificate will provide students the opportunities to experience and learn about a board spectrum of dance (from classical ballet and various styles of modern dance to the social dance of cultures from around the world); to partner with students in developing the physical and technical skills necessary to communicate through dance and to articulate the knowledge of dance; and inspire students to participate in dance activities and to foster the intellectual and creative growth of dancers by instilling in them a commitment to artistic and personal excellence.

Revised: 10/12/2011

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DENTAL HYGIENE
Associate of Applied Science

Program Accreditation: American Dental Association, Commission on Dental Accreditation

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements................32 Credits**
    Goal 1: Written and Oral Communication .... 7 cr
    ENGL 1117, Reading & Writing Critically I, 4 cr
    COMM 1114, Fundamentals of Public Speaking **OR** COMM 1130, Interpersonal Communication, 3 Cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences .... 16 cr
    BIOL 1217, Anatomy and Physiology I, 4 cr
    BIOL 1218, Anatomy and Physiology II, 4 cr
    BIOL 2021, General Microbiology, 4 cr
    CHEM 1117, General Chemistry, 4 cr

    Goal 5: History and the Social and Behavioral Sciences .... 6 cr
    PSYC 1611, Psychology of Adjustment, 3 cr **OR** PSYC 2618, General Psychology, 4 cr
    SOC 1614, Introduction to Sociology, 3 cr

    Goal 6: Humanities – The Arts, Literature, Philosophy .... 3 cr
    Credits from MnTC Goal 6

II. **Program-related Professional Courses..51 Credits**
    NUTR 1211, Principles of Nutrition, 3 cr
    DH 1512, Oral Anatomy, 4 cr
    DH 1510, Principles of Dental Hygiene I, 2 cr
    DH 1520, Principles of Dental Hygiene II, 2 cr
    DH 1511, Dental Hygiene Practice I, 3 cr
    DH 1521, Dental Hygiene Practice II, 5 cr
    DS 1300, Dental Radiology, 3 cr
    DH 1523, Oral Pathology, 2 cr
    DH 1524, Periodontology, 2 cr
    DH 2530, Principles of Dental Hygiene III, 3 cr
    DH 2540, Principles of Dental Hygiene IV, 3 cr
    DH 2531, Dental Hygiene Practice III, 6 cr
    DH 2541, Dental Hygiene Practice IV, 6 cr
    DH 2532, Pain Control, 2 cr
    DH 2533, Dental Pharmacology, 2 cr
    DH 2542, Community Dental Health, 3 cr

    TOTAL ....**83 Credits**

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Notice of Minnesota Background Study Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background study will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at
https://www.revisor.mn.gov/statutes/?id=245C.15.   Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

Purpose: The goal of the program is to provide academic and clinical educational opportunities for capable individuals to acquire the knowledge, skills, and attitudes necessary for the professional practice of dental hygiene. The program prepares individuals for a variety of career opportunities in private dental offices, schools, hospitals, clinics, and public health agencies. Members of the dental hygiene profession act as allied personnel to the dentist and make it possible for more complete preventive dental services to be provided to the public. The dental hygienist provides direct patient care and functions as an integral member of the dental team.

DENTAL HYGIENE COURSE SEQUENCE: *General education courses and Nutrition may be completed prior to enrollment in the Dental Hygiene course sequence or as allowed during the first year.*

Fall Semester (first year)
DH 1512, 4 cr
DH 1510, 2 cr
DH 1511, 3 cr

Fall Semester (second year)
DH 2530, 3 cr
DH 2531, 6 cr
DH 2532, 2 cr
DH 2533, 2 cr

Spring Semester (first year)
DH 1520, 2 cr
DH 1521, 5 cr
DH 1523, 2 cr
DH 1524, 2 cr
DS 1300, 3 cr

Spring Semester (second year)
DH 2542, 3 cr
DH 2540, 3 cr
DH 2541, 6 cr

Registration and Sequence of Courses: General education credits may be taken prior to entering the Dental Hygiene Program. The dental hygiene courses are a four semester sequence and must be taken without a break in registration.

Program Completion: Those who complete the program will be awarded an Associate in Applied Science Degree by RCTC. Graduates are eligible to take the licensure exams which are required in all 50 states for the practice of dental hygiene.

Admission Prerequisites: Registration and Sequence of Courses: General education credits are taken prior to entering the Dental Hygiene Program. The dental hygiene courses are taken in a four-semester sequence and must be taken without a break in registration.

Program Completion: Those who complete the program will be awarded an Associate in Applied Science Degree by RCTC. Graduates are eligible to take the licensure exams which are required in all 50 states for the practice of dental hygiene.   Revised: 03/22/2012

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ART + DESIGN:
DIGITAL ART
Certificate

I. **Core Requirements**...**24 Credits**
    ART 1120, Computer as Creative Media, 3 cr
    ART 1121, 2D Design, 3 cr
    ART 1124, Graphic Design I, 3 cr
    ART 1130, Digital Art I, 3 cr
    ART 1131, Presentation Graphics, 3 cr
    ART 1223, Typography I, 3 cr
    ART 2224, Graphic Design II, 3 cr
    ART 2230, Digital Art II, 3 cr

TOTAL……………...**24 Credits**

PURPOSE: The purpose of the Digital Arts Certificate Program is to introduce students to the perceptual, conceptual, and technical skills needed for a digital artist. Students explore drawing, using the computer as an artistic medium, the issues of image creation both in 2D and 3D.

This certificate provides students who already have a degree a topic of study as a designer. This certificate is also a great access point to begin the Graphic Design Associate of Science (two-year) Degree Program.

Revised: 03/30/2011

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EMERGENCY MEDICAL TECHNOLOGY
Certificate

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ....16 Credits
   Goal 1: Written and Oral Communications ....4 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ....8 cr
   BIOL 1107, Fundamentals of Anatomy and Physiology, 4 cr
   CHEM 1117, General Organic & Biological I Chemistry, 4 cr

   Goal 5: History and the Social and Behavioral Sciences...................................4 cr
    PSYC 2618, General Psychology, 4 cr

II. EMT Core Requirements ....6 Credits
   EMT 1200, Emergency Medical Technician, 6 cr

TOTAL ....22 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15.   Information about completing the background study will be available from program faculty.

NOTE: Two Pre-requisites exist for this course: high school chemistry or CHEM 1100, and MATH 0098.

Purpose: The primary focus of the Emergency Medical Technician is to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. The certificate EMT will receive general education courses that are designed to enhance their knowledge, skills and abilities. The program is also designed to meet the academic pre-requisites of the Intensive Care Paramedic Program.

Implemented: Fall 2011

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ENGINEERING
Associate in Science

It is very important to complete the appropriate math and science sequences and as many other general education requirements as possible prior to transfer. However, it is not always necessary to complete the A.A. degree before transferring. Contact your transfer college to discuss this and meet with an RCTC counselor to ensure that the correct courses are chosen. For more detailed advising, including transfer plans to specific universities and much more, please go to:
www.roch.edu./dept/sci/engineering/advising.htm

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements...………..30 Credits**
   Goal 1: Written and Oral Communication …………………………..…………4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences …………..…………………………….………………5 cr
   PHYS 1127, Classical Physics I, 5 cr

   Goal 4: Mathematics/Logical Reasoning ..……………………………………..5 cr
   MATH 1127, Calculus I, 5 cr

   Goal 5: History and Social and Behavioral Sciences ..………………………..6 cr
   Credits from MnTC Goal 5

   Goal 6: The Humanities - the Arts, Literature and Philosophy …………..….6 cr
   Credits from MnTC Goal 6

   General Education Elective……………………………………… ………….….4 cr
   Credits from MnTC Goal 1-6 (See an RCTC counselor for appropriate choices)

II. **Core Requirements………………………………………………………..………………….20 Credits**
   MATH 1128, Calculus II, 5 cr
   MATH 2237, Multivariable and Vector Calculus, 5 cr
   MATH 2238, Differential Equations & Linear Algebra, 5 cr
   PHYS 1128, Classical Physics II, 5 cr

III. **Additional courses …………………………………………………..…………………10 Credits**
   Choose courses from the following list based on the engineering area of emphasis (electrical, mechanical, chemical, etc.) and the intended transfer institution. Contact RCTC counselors to determine which courses are necessary and visit
   www.roch.edu/dept/sci/engineering/advising.htm

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BIOL 1220, Concepts of Biology, 4 cr
CHEM 1127, Chemical Principles I, 4 cr
CHEM 1128, Chemical Principles II, 4 cr
CHEM 2127, Organic Chemistry I, 4 cr
CHEM 2128, Organic Chemistry II, 4 cr
COMP 1150, Computer Science Concepts, 3 cr
COMP 2243, Programming and Problem Solving, 4 cr
COMP 2247, Algorithms and Data Structures, 4 cr
ENGR 1152, Logic Design, 4 cr
ENGR 1153, Microprocessors, 4 cr
ENGR 2211, Statics, 3 cr
ENGR 2212, Dynamics, 3 cr
ENGR 2213, Linear Circuit Analysis I, 4 cr
ENGR 2214, Linear Circuit Analysis II, 4 cr
ESCI 1101, Earth Systems Science, 3 cr
ESCI 1114, Physical Geology, 4 cr
MATH 2218, Discrete Mathematics, 4 cr
Additional General Education credits depending on major, 1-10 cr

Total...60 Credits

NOTE: University of Minnesota – Twin Cities engineering programs require two years of high school foreign language or two semesters of college foreign language.

To investigate the general education requirements for the University of Minnesota – Twin Cities, see
http://www.roch.edu/dept/sci/engineering/universities/uofm/uofmgened.htm

To investigate the general education requirements for Minnesota State University – Mankato, see
http://www.roch.edu/dept/sci/engineering/universities/mankato/mankatogened.htm

To transfer elsewhere investigate the requirements at that college and confer with an RCTC counselor.
Also, visit http://www.roch.edu/dept/sci/engineering/advising/htm

Revised: 03/01/2012

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ENVIRONMENTAL SCIENCE
Associate in Science

I. Minnesota Transfer Curriculum General Education Requirements…………….................31 Credits

Goal 1: Written and Oral Communication……………………11 cr
COMM 1114, Fundamentals of Speech, 3 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
ENGL 1118, Reading & Writing Critically II, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 goals

Goal 3: Natural Sciences …………………………………...……….…7 cr
BIOL 1102, Plant Biology, 3 cr
BIOL 1220, Concepts of Biology, 4 cr

Goal 4: Mathematics/Logical Reasoning ………………..……..4 cr
MATH 2208, Fundamentals of Statistics, 4 c

Goal 5: History and the Social and Behavioral Sciences ……..3 cr
SOC 1614, Introduction to Sociology, 3 cr

Goal 6: Humanities – the Arts, Literature, and Philosophy …3 cr
Choose one of the following courses:
PHIL 1125, Ethics, 3 cr
PHIL 1130, Environmental Ethics, 3 cr

Goal 10: People and the Environment ……........…..…………3 cr
BIOL 1100, Environmental Biology, 3 cr

II. Professional Core Requirements..29 Credits
BIOL 1230, Survey of Life Forms, 4 cr
BIOL 1300, Biological Applications of GIS Technology, 3 cr
BIOL 1400, Environmental Science Internship, 2 cr
BIOL 2000, Ecology, 4 cr
BIOL 2200, Zoology, 4 cr
BIOL 2300, Genetics, 4 cr

Choose one of the following two-course sequences:
CHEM 1127 & CHEM 1128, Chemical Principles I & II, 8 cr
PHYS 1107 & 1108, Technical Physics I & II, 8 cr
PHYS 1117 & 1118, Introductory Physics I & II, 8 cr

TOTAL A.S. CREDITS ....60 Credits
TOTAL CREDITS TOWARD WSU DEGREE…………….………...……………………………...….60 Credits

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Environmental Science, A.S., Sample Course Sequence

Sample Course Sequence
Fall Year 1 (14 cr)
BIOL 1100   Environmental Biology, 3 cr
BIOL 1220   Concepts of Biology, 4 cr
CHEM 1127   Chemical Principles I, 4 cr
PHIL 1130   Environmental Ethics, 3 cr

Spring Year 1 (17 cr)
BIOL 1230   Survey of Life Forms, 4 cr
BIOL 1400   Environmental Science Internship, 2 cr
CHEM 1128   Chemical Principles II, 4 cr
ENGL 1117   Reading and Writing Critically I, 4 cr
COMM 1114   Fundamentals of Public Speaking, 3 cr

Fall Year 2 (15 cr)
BIOL 2000   Ecology, 4 cr
BIOL 2200   Zoology, 4 cr
ENGL 1118   Reading and Writing Critically II, 4 cr
SOC 1614   Introduction to Sociology, 3 cr

Spring Year 2 (14 cr)
BIOL 1102   Plant Biology, 3 cr
BIOL 2300   Genetics, 4 cr
MATH 2208   Fundamentals of Statistics, 4 cr
BIOL 1300   Applications of GIS Technology, 3 cr

Revised: 03/13/2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

EQUINE SCIENCE:
BUSINESS MANAGEMENT
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements………….30 Credits**
   Goal 1: Written and Oral Communication …………………………..…….. 7 cr
   COMM 1114, Fundamentals of Speech, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ………………………………………………….6 cr
   BIOL 1101, Elements of Biology, 3 cr
   CHEM 1101, Elements of Chemistry, 3 cr

   Goal 4: Mathematics/Logical Reasoning …..……….………….…………3-4 cr
   MATH 1115, College Algebra, 3 cr
   OR
   MATH 2208, Fundamentals of Statistics, 4 cr

   Goal 5: History and the Social and Behavioral Sciences ...…..……………7 cr
   ECON 2214, Principles of Economics-Micro, 4 cr
   Choose one course from: Anthropology, Geography, History, MCOM 1110,
   Political Science, Psychology, Sociology

   Goal 6: Humanities - the Arts, Literature, and Philosophy ………………….6 cr
   Three credits from two different MnTC Goal 6 disciplines

II. **Program Core Courses…………………………….…………………….………...23 Credits**

   EQSC 1100, Intro to Equine Science, 3 cr   EQSC 1122, Horse Nutrition, 3 cr
   EQSC 1101, Light Horse Management, 3 cr   EQSC 1166, Hoof Care and Mgmt, 1 cr
   EQSC 1103, Equine Anatomy & Physiology, 3 cr   EQSC 1188, Current Topics: Horse Industry, 2 cr
   EQSC 1109, Horse Selection and Judging, 3 cr   EQSC 1177, Intro to Equine Reproduction, 1 cr
   EQSC 1120, Equine Business Practices, 3 cr   EQSC 2100, Equine Science Co-op, 1 cr

III. **Business Core Courses …………………….…………………..………………………7 Credits**
   ACCT 2217, Financial Accounting, 4 cr
   BUS 2201, Principles of Marketing, 3 cr

TOTAL………………………………………………………………………….60 Credits

The purpose of the Equine Science Business Management program is to provide the first two years of experience for transfer to the University of Minnesota Crookston to earn a BS degree in Equine Industries management as per our articulation agreement. At UMC you will broaden your base of education and balance the practical skills of working with and caring for horses with the business and management aspects of the horses industry which appeals to employers or help you establish a successful equine enterprise. Revised: 03/01/12

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

EQUINE SCIENCE:
HORSE HUSBANDRY
Certificate

I. Core Requirements………….. …………………………………………………………29 Credits

EQSC 1100, Introduction to Equine Science, 3 cr
EQSC 1101, Light Horse Management, 3 cr
EQSC 1103, Equine Anatomy, Physiology and Disease Management, 3 cr
EQSC 1109, Horse Selection and Judging, 3 cr
EQSC 1120, Equine Business Practices, 3 cr
EQSC 1122, Horse Nutrition , 3 cr
EQSC 1166, Hoof Care and Management, 1 cr
EQSC 1177, Introduction to Equine Reproduction, 1 cr
EQSC 1188, Current Topics in the Horse Industry, 2 cr
EQSC 2100, Equine Science Co-op, 1 cr
EQSC 2222, Riding/Training Internship, 3 cr
OR
EQSC 2223, Horse Husbandry Internship, 3 cr

II. Electives from remaining EQSC courses…………………………………………….....3 Credits

TOTAL…………………………..……………………………………...…………..…………29 Credits

The purpose of the Certificate in Equine Science Horse Husbandry is to provide one year of intensive equine courses that prepares students for careers in stable management, horse breeding, and horse care. Students may choose to use these skills to pursue horse husbandry as a lifelong learning experience. Students will have the skills to manage their own horse business, work for other professionals or pursue advanced training.

Revised: 07/03/2012

EQUINE SCIENCE:
RIDING/TRAINING
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements.............22 Credits

Goal 1: Written and Oral Communication ……………………………….……7 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Speech **OR** COMM 1130, Interpersonal Communications, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences …………………………………………...……………6 cr
Choose one Biology and one Chemistry course:

BIOL 1100, Environmental Biology, 3 cr   BIOL 1220, Concepts of Biology, 4 cr
BIOL 1101, Elements of Biology, 3 cr   CHEM 1100, Chem in Our World Today, 3 cr
BIOL 1107, Fund Anatomy & Physiology, 4 cr   CHEM 1101, Elements of Chemistry, 3 cr
BIOL 1110, Human Biology, 4 cr   CHEM 1127, Chemical Principles I, 4 cr

Goal 4: Mathematics/Logical Reasoning ……………………….…………..3 cr
MATH 1111, Contemporary Concepts in Mathematics, 3 cr
(MATH 1111 or higher, except MATH 1112)

Goal 5: History and the Social and Behavioral Sciences ………………..……….3 cr
Choose one: ECON 1101, Introduction to Economics, 3 cr
               ECON 2214, Microeconomics, 4 cr

Goal 6: Humanities - and the Arts, Literature and Philosophy ………………3 cr
Credits from MnTC Goal 6

II. Core Requirements…………………………………………………….………….38 Credits

EQSC 1100, Intro to Equine Science, 3 cr   EQSC 1120, Equine Business Practices, 3 cr
EQSC 1101, Light Horse Management, 3 cr   EQSC 1122, Horse Nutrition, 3 cr
EQSC 1103, Anatomy and Physiology, 3 cr   EQSC 2222 or 2223, Internship, 3 cr
EQSC 1109, Horse Selection & Judging, 3 cr   EQSC 2220, Teaching Techniques, 4 cr
EQSC 1105, Colt Starting, 4 cr   EQSC 1188, Current Topics: Horse Industry, 2 cr
EQSC 1115, Hunt Seat Equitation I, 3 cr **OR**
EQSC 1110, Western Horsemanship I, 3 cr
EQSC 1116, Hunt Seat Equitation II, 3 cr **OR**
EQSC 1111, Western Horsemanship II, 3 cr

Choose one of the following elective courses:
EQSC 1166, Hoof Care and Management, 1 cr
EQSC 1177, Introduction to Equine Reproduction, 1 cr

TOTAL……………………………………………………………………….......60 Credits

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The purpose of the AAS in Equine Science Riding/Training program is to provide a two year broad based degree that prepares students to work as horse trainers, riding instructors, show coaches and/or other related occupations. Students will have the skills to manage their own home business, work for other professionals or pursue advanced training. Students may consider transfer options by working closely with a four-year institution of their choice.

Revised: 11/27/2012

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EQUINE SCIENCE:
RIDING/TRAINING
Diploma

I. **Core Requirements…………..** ……………………………………………………………40 **Credits**

> EQSC 1100, Introduction to Equine Science, 3 cr
> EQSC 1101, Light Horse Management Theory, 3 cr
> EQSC 1120, Equine Business Practices, 3 cr
>
> EQSC 1115, Hunt Seat Equitation I, 3 cr
> **OR**
> EQSC 1110, Western Horsemanship I, 3 cr
>
> EQSC 1116, Hunt Seat Equitation II, 3 cr
> **OR**
> EQSC 1111, Western Horsemanship II, 3 cr
>
> EQSC 1103, Equine Anatomy, Physiology and Disease Management, 3 cr
> EQSC 1105, Colt Starting, 4 cr
> EQSC 1109, Horse Selection and Judging, 3 cr
> EQSC 1122, Horse Nutrition , 3 cr
> EQSC 1166, Hoof Care and Management, 1 cr
> EQSC 1177, Introduction to Equine Reproduction, 1 cr
> EQSC 1188, Current Topics in the Horse Industry, 2 cr
> EQSC 2100, Equine Science Co-op, 1 cr
> EQSC 2220, Teaching Techniques, 4 cr
>
> EQSC 2222, Equine Riding/Training Internship, 3 cr
> **OR**
> EQSC 2223, Equine Horse Husbandry Internship, 3 cr

TOTAL…………………………..…………………………………………...…………..…………40 **Credits**

The purpose of the Diploma in Equine Science Riding/Training is to provide one year of intensive equine courses that prepare students to work as horse trainers, riding instructors, show coaches, and/or other related occupations. Students may choose to use these skills to purse horsemanship as a lifelong learning experience.

Implementation: Fall 2012
Revised: 01/10/2013

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ART + DESIGN:
GRAPHIC DESIGN
Associate in Science

I.   **Minnesota Transfer Curriculum General Education Requirements**............................30 Credits
Goal 1: Written and Oral Communication……………………..…….....……7 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Speech, **OR** COMM 1130, Interpersonal Communication, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .... 3 cr
Credits from MnTC Goal 3

Goal 4: Mathematics/Logical Reasoning ....3 cr
MATH 1111, Contemporary Concepts in Mathematics, 3 cr
OR higher level mathematics course that meets MnTC Goal 4

Goal 5: History and the Social and Behavioral Sciences ....3 cr
Credits from MnTC Goal 5

Goal 6: The Humanities—the Arts, Literature and Philosophy ....12 cr
ART 1111, Art History Survey I, 3 cr
ART 1112, Art History Survey II, 3 cr
ART 1121, 2D Design, 3 cr
ART 1134, Drawing I, 3 cr

MNTC General Education Electives……………………………….....……....2 cr
Credits from courses meeting MnTC competencies in Goal areas 1-10.

II. **Professionally-related Requirements and Electives** ....30 Credits
Required:
ART 1124, Graphic Design I, 3 cr
ART 1130, Digital Art I, 3 cr
ART 1223, Typography I, 3 cr
ART 1232, Interactive Web Design I, 3 cr
ART 2224, Graphic Design II, 3 cr
ART 2230, Digital Art II, 3 cr
ART 2240, Motion Graphics I, 3 cr
ART 2292, Directed Studio, 3 cr
Electives – pick 2 of the following:
ART 1120, Computer as Creative Media, 3 cr
ART 1131, Presentation Graphics, 3 cr
ART 1184, Introduction to Digital Photography, 3 cr
ART 1233, Interactive Web Design II, 3 cr
ART 2217, Art and Design Projects, 3 cr
ART 2237, Animation and 3D Modeling, 3 cr

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TOTAL ....……............................60 Credits

PURPOSE:
The purpose of the Graphic Design A.S. Degree Program is to provide the first two years of experience for transfer to any higher education institution for careers in Graphic Design. There are many opportunities in Graphic Design careers such as designing logos, posters, packaging, and promotional materials; working on layout for magazines, books, and publications; and creating advertisements.

An Articulation Agreement has been established between Rochester Community and Technical College and Minnesota State University, Moorhead. As a result, students will be able to transfer the Graphic Design Program as a package.

Revised: 04/26/2012

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GROUP FITNESS INSTRUCTOR
Certificate

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements……..…… 4 Credits**
   Goal 3: Natural Sciences
   Choose from one of the following:
   BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
   BIOL 1110, Human Biology, 4 cr
   BIOL 1127, Principles of Anatomy I, 4 cr
   BIOL 1217, Anatomy & Physiology I, 4 cr

II. **Professional Core Requirements ……………….……………………………………10 Credits**
   HLTH 1110, CPR/AED, 1 cr
   HLTH 1108, Weight Management, 3 cr
   PHED 2240, Methods of Group Fitness, 3 cr
   PHED 2293, Personal Trainer/Group Fitness Instructor Field Experience, 3 cr

III. **Electives (Select any combination of courses for a minimum of)……………………….6 Credits**
   PHED 2242, Essentials of Strength & Conditioning, 3 cr
   PHED 2241, Essentials of Personal Training, 3 cr
   PHED 1126, Body Toning, 1 cr
   PHED 1127, Step Aerobics, 1 cr
   PHED 1125, Yoga, 1 cr
   PHED 1124, Tai Chi, 1 cr
   PHED 1189, Boot Camp, 1 cr
   PHED 2245, GF/PT Certification Exam Prep, 2 cr

TOTAL ……… ……………………………………………………………………………..20 Credits

Revised: 03/13/2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

GROUP FITNESS INSTRUCTOR
Diploma

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements……....……4 Credits**
    Goal 3: Natural Sciences
    Choose from one of the following:
    BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
    BIOL 1110, Human Biology, 4 cr
    BIOL 1127, Principles of Anatomy I, 4 cr
    BIOL 1217, Anatomy & Physiology I, 4 cr

II. **Professional Core Requirements ………………………………..………….……... 22 Credits**
    HLTH 1110, CPR/AED, 1 cr
    PHED 1105, Lifetime Fitness, 3 cr
    PHED 2240, Methods of Group Fitness, 3 cr
    PHED 2242, Essentials of Strength & Conditioning, 3 cr
    PHED 2249, Prevention and Care of Athletic Injuries, 3 cr
    PHED 2252, Sport Psychology, 3 cr
    PHED 2253, Sport Nutrition For Performance, 3 cr
    PHED 2293, Personal Trainer/Group Fitness Instructor Field Experience, 3 cr

III. **Electives: (Select any combination of courses for a minimum of)…..………………..5 Credits**
    PHED 1126, Body Toning, 1 cr
    PHED 1127, Step Aerobics, 1 cr
    PHED 1125, Yoga, 1 cr
    PHED 1124, Tai Chi, 1 cr
    PHED 1189, Boot Camp, 1 cr
    PHED 2241, Essentials of Personal Training, 3 cr
    PHED 2245, GF/PT Certification Exam Prep, 2 cr
    REC 2210, Recreation Program Leader, 3 cr

    TOTAL …………………………………………….…………..…………..31 Credits

Revised: 03/13/2013

Rochester
COMMUNITY AND TECHNICAL
College

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

HISTOLOGY TECHNICIAN
Associate in Science
An Affiliated Program with the Mayo School of Health Sciences

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements…………30 Credits
Goal 1: Written and Oral Communication……………………………………..7 cr
ENGL 1109, Technical Report Writing, 3 cr
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 3: Natural Science ....12 cr
BIOL 1217 and 1218, Anatomy and Physiology I and II, 8 cr
CHEM 1117, General, Organic and Biological Chemistry I, 4 cr
OR
CHEM 1127, Chemical Principles I, 4 cr

Goal 4: Mathematics/Logical Reasoning ……..……………… ……………. 3 cr
MATH 1115, College Algebra, 3 cr

Goal 5: History and the Social and Behavioral Sciences ……………………..4 cr
PSYC 2618, General Psychology, 4 cr

Goal 6: The Humanities – the Arts, Literature and Philosophy …..................3 cr
Recommended:
PHIL 1135, Bioethics, 3 cr
OR
PHIL 1125, Ethics, 3 cr

MnTC General Education Electives……………………………………………..1 cr
Credits chosen from courses meeting MnTC competencies in Goal areas 1-10

II. Professional Core Requirements ……………………………..…………...…………30 Credits
BTEC 1600, Introduction to Medical Terminology, 2 cr
CHEM 1118, General, Organic and Biochemistry II, 4 cr
OR
CHEM 1128, Chemical Principles II, 4 cr
CONSORTIUM, Histology Tech core curriculum transfer, 24 cr

TOTAL…………………………………………………………………………….60 Credits

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

Histology Technician, A.S.
2-year Academic Plan

Fall I			Spring I	
CHEM 1117	4 cr		CHEM 1118	4 cr
BIOL 1217	4 cr		BIOL 1218	4 cr
BTEC 1600	2 cr		ENGL 1117	4 cr
ENGL 1109	3 cr		PHIL 1135	3 cr
MATH 1115	3 cr		Elective	1 cr
	16 cr			**15 cr**

Summer I
PSYC 2618   **4 cr**

Year II   (August to May)
HT Mayo core   **24 cr**

ADDITIONAL NOTES:

Purpose: The primary goal of this educational program is to provide academic and clinical educational opportunities for capable men and women to gain and develop the knowledge, skills and attitudes necessary for the ethical and professionally competent practice of histology technician. Students are admitted to the histology technician program in the spring of first year of study.

Pre- Admission Requirements:
1. High school diploma or GED.
2. Earn a grade of "C" or better in high school chemistry, biology, and algebra II or complete BIOL 1101, CHEM 1101, and MATH 0099 or equivalent.
3. Apply to RCTC and indicate histology technician as a major.
4. Place at College level reading, Writing, and College algebra on the College placement test.

Admission:
1. Admission is to the **second year** of the histology technician program.
2. Application to the histology technician program is through Mayo School of Health Sciences and must be completed by March 1 of the first year of the program. The application must be obtained from MSHS and can be accessed at www.mayo.edu/mshs
3. Eight (8) students will be accepted into the program.
4. All Math and Science class for the program must be completed within five years of admission to the program.

Registration and Sequence of Courses: This is a two year (five semesters) program consisting of 60 academic and clinical credits. Following admission to Rochester Community and Technical College, students are enrolled in general education courses at RCTC for the first three semesters. The remaining two semesters are completed through the Mayo School of Health Sciences (MSHS).

Program Completion: Those who complete the program will be awarded a Certificate of Completion from Mayo and an Associate in Science Degree from RCTC.

Revised: 10/24/2011

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

HEALTH INFORMATION TECHNOLOGY
Associate in Applied Science

Program Accreditation: The RCTC Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

To be admitted to the program, students must meet admission criteria and complete two (2) applications and return them to RCTC Admissions and Records:
- RCTC Application for admission: www.rctc.edu/admissions/html/application_form.html
- Program Application
- Admission criteria

I. MN Transfer Curriculum (MnTC) General Education Requirements……….minimum of 17 Credits
Goal 1: Written and Oral Communication ……………...7 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
COMM 1114, Fundamentals of Public Speaking, 3 cr **OR** COMM 1130, Interpersonal Communications, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ....4 cr
BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr

Goal 5: History and the Social and Behavioral Sciences …………….....................3 cr
PSYC 1611, Psychology of Adjustment, 3 cr **OR** PSYC 2618, General Psychology, 4 cr

Goal 6: The Humanities—the Arts, Literature, Philosophy …………….................3 cr

II. Professionally Related Business Requirements...47 Credits
BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr
BTEC 2350, Microcomputer Business Applications, 3 cr
BTEC 2450, PowerPoint, 1 cr
OR
BTEC 2355 in place of BTEC 2350 and 2450
BTEC 2870, Employment Strategies, 1 cr
HIMC 1800, Legal Aspects of Health Information, 3 cr
HIMC 1810, ICD-9-CM Coding, 3 cr
HIMC 1820, CPT Coding, 3 cr
HIMC 1830, Advanced Coding and Reimbursement, 3 cr
HIMC 1840, Introduction to Health Records, 4 cr
HIMC 1850, Computerized Health Information, 3 cr
HIMC 2010, ICD-10-CM Coding, 3 cr
HIMC 2020, ICD-10-PCS Coding, 3 cr
HIMC 2620, Pathophysiology and Pharmacology I, 3 cr
HIMC 2630, Pathophysiology and Pharmacology II, 3 cr
HIMC 2810, Quality Analysis and Health Statistics, 3 cr
HIMC 2820, Supervision of Health Information, 3 cr

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HIMC 2830, HIT Review, 1 cr
HIMC 2870, HIT Capstone Experience, 2 cr

NOTE: PREREQUISITES: This program is offered predominately online. Computer requirements are listed on the RCTC Online web page at http://www.rctc.edu/online/. Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

TOTAL..64 Credits

Background checks are required to ensure a safe environment for both students and the public and to meet the contractual requirements of area healthcare facilities. Students who fail to submit and pass a background check cannot complete or maintain enrollment in the program. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15.

Health Information Technology, A.A.S., Full-time Course Sequence

Semester I	**Semester II**
BIOL 1107, 4 cr	HIMC 1800, 3 cr
BTEC 1610, 2 cr	HIMC 1820, 3 cr
BTEC 2350, 3 cr	HIMC 2630, 3 cr
BTEC 2450, 1 cr	BTEC 2870, 1 cr
HIMC 1840, 4 cr	COMM 1114 **or** 1130, 3 cr
HIMC 2620, 3 cr	ENGL 1117, 4 cr

Semester III	**Semester IV**
HIMC 1810, 3 cr	HIMC 1830, 3 cr
HIMC 1850, 3 cr	HIMC 2010, 3 cr
HIMC 2020, 3 cr	HIMC 2820, 3 cr
HIMC 2810, 3 cr	HIMC 2830, 1 cr
PSYC 1611 **or** 2618, 3-4 cr	HIMC 2870, 2 cr
	MNTC Goal 6, 3 cr

Health Information Technology, A.A.S., Part-time (3-year) Course Sequence

Semester I	**Semester II**	**Semester III**
BTEC 2350, 3 cr	BIOL 1107, 4 cr	BTEC 1610, 2 cr
ENGL 1117, 4 cr	BTEC 2450, 1 cr	HIMC 1840, 4 cr
COMM 1114, 3 cr	PSYC 1611, 3 cr	HIMC 2620, 3 cr
	MNTC Goal 6, 3 cr	

Semester IV	**Semester V**	**Semester VI**
HIMC 1800, 3 cr	HIMC 1810, 3 cr	BTEC 2870, 1 cr
HIMC 1820, 3 cr	HIMC 2810, 3 cr	HIMC 1830, 3 cr
HIMC 1850, 3 cr	HIMC 2020, 3 cr	HIMC 2010, 3 cr
HIMC 2630, 3 cr	HIMC 2810, 3 cr	HIMC 2830, 1 cr
		HIMC 2870, 2 cr

Revised: 04/01/2013

Rochester COMMUNITY AND TECHNICAL College

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Health Sciences Broad Field
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements**………………….**48 Credits**
Goal 1: Written and Oral Communication..**7 cr**
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Public Speaking, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ………………………………………………..............**20 cr**
BIOL 1220, Concepts of Biology, 4 cr
BIOL 2021, General Microbiology, 4 cr
BIOL 1217, Anatomy & Physiology I, 4 cr
BIOL 1218, Anatomy & Physiology II, 4 cr
CHEM 1117, General, organic and Biological Chemistry I, 4 cr

Goal 4: Mathematics/Logical Reasoning ……. ……………………………………...**7 cr**
MATH 2208, Fundamentals of Statistics, 4 cr
MATH 1115, College Algebra, 3 cr

Goal 5: History and the Social and Behavioral Sciences ………………..……………**10 cr**
PSYC 2618, General Psychology, 4 cr
PSYC 2626, Human Growth and Development, 3 cr
SOC 1614, Introduction to Sociology, 3 cr

Goal 6: Humanities - the Arts, Literature and Philosophy …………….. ………..**3 cr**
PHIL 1135, Bioethics, 3 cr

II. **Additional MNSCU Requirements**…………………………………………………………..**3 Credits**
NUTR 1211**,** Principles of Nutrition, 3 cr

III. **Electives (University of Minnesota Rochester Requirements)** …………………………………**10 Credits**
BTEC 1600, Medical Terminology, 2 cr
ENGL 1118, College Reading and Writing II, 4 cr
PHYS 1103, Principles of Physics, 3 cr
HLTH 1110 CPR/AED For the professional Rescuer (Health Care Provider), 1cr
TOTAL ……………………………………………………………………..…………… ………….**60 Credits**

Purpose: This is a general, introductory program in health sciences that prepares individuals for transfer to a variety of baccalaureate degree programs. It includes instruction in the basic sciences and aspects of subject matter related to various health occupations.

Articulation: This program articulates with the Bachelor of Science in Health Professions degree offered through the University of Minnesota Rochester. It meets the first two years of academic requirements for this degree. It also has a statewide articulation with all MNSCU four year colleges for a variety of baccalaureate options.

Implementation: Fall 2012

For information, contact the Welcome Center at 507-285-7557
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HEALTHCARE INFORMATICS
Certificate

NOTE: PREREQUISITES: This program is offered online. Computer requirements are listed on the RCTC Online web page at http://www.rctc.edu/online/. Students entering this program must be proficient in keyboarding skills. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

I.   Professionally Related Program Requirements……………………………...………**24 Credits**

   BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr
   BTEC 2350, Microcomputer Business Applications, 3 cr
   BTEC 2360, Advanced Excel, 2 cr
   BTEC 2370, Advanced Access, 2 cr
   BTEC 2450, Power Point, 1 cr
   BTEC 2460, Computer Voice Technology, 1 cr
   HIMC 1840, Introduction to Health Records, 4 cr
   HIMC 1850, Computerized Health Information, 3 cr
   HIMC 1800, Legal Aspects of Health Information, 3 cr
   HIMC 2810, Quality Analysis and Health Statistics, 3 cr

TOTAL…………………………………………………………………………….…………..**24 Credits**

Healthcare Informatics Certificate Program Full-time Course sequence:

Semester I		Semester II	
BTEC 1610	2 cr	BTEC 2360	2 cr
BTEC 2350	3 cr	BTEC 2370	2 cr
BTEC 2450	1 cr	BTEC 2460	1 cr
HIMC 1800	3 cr	HIMC 1850	3 cr
HIMC 1840	4 cr	HIMC 2810	3 cr

Healthcare Informatics Certificate Program Part-time Course sequence:

Semester I		Semester II	
BTEC 1600	2 cr	BTEC 2360	2 cr
BTEC 2350	3 cr	HIMC 1840	4 cr
BTEC 2450	1 cr		

Semester III		Semester IV	
BTEC 2370	2 cr	HIMC 1850	3 cr
BTEC 2460	1 cr	HIMC 2810	3 cr
HIMC 1800	3 cr		

Revised: 03/13/2013

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HORTICULTURE TECHNOLOGY:
FLORICULTURE/GARDEN CENTER
Diploma

I. **Minnesota Transfer Curriculum General Education Requirements**............................. **8 Credits**
    Goal 3: Natural Sciences……………………………………….…………..**3 cr**
    BIOL 1102, Plant Biology, 3 cr

    Additional General Education Requirements…………………….….…………**5 cr**
    Students may choose additional credits from MNTC Goals 1-10 or Allied Studies;
    or any other college course numbered 1000 or above other than courses from
    HORT, HTFL or HTLS.

II. **Professional Core Requirements**……………………………………………………**41 Credits**
    HORT 1310, Soil Science, 3 cr
    HORT 1315, Plant Materials I-Woody Plants, 3 cr
    HORT 1318, Introduction to Turfgrass Mgmt, 3 cr
    HORT 1320, Plant Materials II-Herbaceous Plants, 3 cr
    HORT 1323, Introduction to Horticulture, 3 cr
    HORT 2303, Horticulture Internship, 3 cr
    HORT 2330, Plant Propagation, 4 cr
    HORT 2331, Greenhouse Operations & Mgmt, 3 cr
    HORT 2335, Landscape Design, 3 cr
    HORT 2350, Integrated Plant/Pest Management, 2 cr
    HORT 2399, Horticulture Seminar, 1 cr
    HTFL 1328, Floral Design and Merchandising, 3 cr
    HTFL 2341, Greenhouse Crop Production, 4 cr
    HTFL 2342, Interior Plants and Plantscaping, 3 cr

III. **Technical Electives**...**5 Credits**
    Courses prefixed HTLS or any MNTC or Allied Studies Course approved by Horticulture Advisor.
    HORT 2301, HORT 2302 Directed Study, HORT 2390 World Horticulture, HORT 1325 Urban
    Forestry, HTLS 2332 Arboriculture.

TOTAL ....**54 Credits**

COURSE SEQUENCE

Year 1/1st Semester	Year 1/2nd Semester	Year 2/1st Semester	Year 2/2nd Semester
HORT 1310	BIOL 1102	HORT 2331	HTFL 2341
HORT 1315	HORT 1320	HORT 2330	HTFL 2342
HORT 1318	HTFL 1328	HORT 2335	HORT 2399
HORT 1323		HORT 2350	

PURPOSE: The Horticulture Technology Careers program offers three options: Horticulture Technology A.A.S.; Floriculture/Garden Center Technician Diploma; and Landscape, Golf Course, Grounds Maintenance Technician Diploma.

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

The Horticulture Technology curriculum provides students with the general education and technical skills to meet the demand for employment opportunities in Landscaping, Golf Course, Grounds Maintenance, Urban Forestry, Floriculture, Interior plantscaping, and Horticulture Crop production. Well trained personnel are needed to meet the customer demands for horticulture goods and services. Today's customers of horticulture products and services are more knowledgeable and demanding. They seek quality products and numerous services. These demands are the basis of employment opportunities in Horticulture Technology Careers. Specialization and departmentalization have created an increased need for skillfully trained personnel. Many employment opportunities in horticulture allow for advancement to supervisory and managerial positions. Businesses of horticulture products or services require skilled employees and managers to be successful. Upon graduation, depending on the curriculum choices, a student could perform in the following occupational areas: floral designer, grower, shop manager, garden center manager, technician, salesperson, greenhouse owner/operator, technician; horticulture equipment/supplies sales; public recreation grounds maintenance technician; golf course maintenance; grounds maintenance owner/operator; lawn care/landscape maintenance owner/operator; landscape construction, design, sales, equipment/materials sales; nursery field supervisor, technician; nursery/garden center owner/operator; turf and sod grower, retailer; maintenance/management of urban trees.

Revised: 05/27/2010

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HORTICULTURE TECHNOLOGY:
LANDSCAPE, GOLF COURSE & GROUNDS MAINTENANCE
Diploma

I. **Minnesota Transfer Curriculum General Education Requirements……………………..8 Credits**
    Goal 3: Natural Sciences…………………………………………………………..3 cr
    BIOL 1102, Plant Biology, 3 cr

    Additional General Education Requirements……………….…………....…5 cr
    Students may choose additional credits from MNTC Goals 1-10 or Allied Studies;
    or any other college course numbered 1000 or above other than courses from
    HORT, HTFL or HTLS.

II. **Professional Core Requirements...42 Credits**
    HORT 1310, Soil Science, 3 cr
    HORT 1323, Introduction to Horticulture, 3 cr
    HORT 1315, Plant Materials I-Woody Plants, 3 cr
    HORT 1318, Introduction to Turfgrass Mgmt, 3 cr
    HORT 2331, Greenhouse Operations & Mgmt, 3 cr
    HORT 2335, Landscape Design, 3 cr
    HORT 1320, Plant Materials II-Herbaceous Plants, 3 cr
    HORT 2330, Plant Propagation, 4 cr
    HORT 2350, Integrated Plant/Pest Management, 2 cr
    HORT 2399, Horticulture Seminar, 1 cr
    HTLS 1322, Turf and Grounds Management, 4 cr
    HTLS 2343, Landscape Installation/Construction, 4 cr
    HTLS 2345, Golf Course Field Operations, 3 cr
    HORT 2303, Horticulture Internship, 3 cr

III. **Technical Electives.. 4 Credits**
    Any course prefixed HTFL or any MNTC or Allied Studies Course approved by Horticulture Advisor.
    HORT 2301, HORT 2302 Directed Study, HORT 2390 World Horticulture

TOTAL ....54 Credits

COURSE SEQUENCE

Year 1/1st Semester	Year 1/2nd Semester	Year 2/1st Semester	Year 2/2nd Semester
HORT 1310	BIOL 1102	HORT 2331	HTLS 2343
HORT 1315	HORT 1320	HORT 2330	HTLS 2345
HORT 1318	HTLS 1322	HORT 2335	HORT 2303
HORT 1323		HORT 2350	HORT 2399

PURPOSE: The Horticulture Technology Careers program offers three options: Horticulture Technology AAS, Floriculture/Garden Center Technician diploma, and Landscape, Golf Course, Grounds Maintenance Technician Diploma.

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The Horticulture Technology curriculum provides students with the general education and technical skills to meet the demand for employment opportunities in Landscaping, Golf Course, Grounds Maintenance, Urban Forestry, Floriculture, Interior plantscaping, and Horticulture Crop production. Well trained personnel are needed to meet the customer demands for horticulture goods and services. Today's customers of horticulture products and services are more knowledgeable and demanding. They seek quality products and numerous services. These demands are the basis of employment opportunities in Horticulture Technology Careers. Specialization and departmentalization have created an increased need for skillfully trained personnel. Many employment opportunities in horticulture allow for advancement to supervisory and managerial positions. Businesses of horticulture products or services require skilled employees and managers to be successful. Upon graduation, depending on the curriculum choices, a student could perform in the following occupational areas: floral designer, grower, shop manager, garden center manager, technician, salesperson, greenhouse owner/operator, technician; horticulture equipment/supplies sales; public recreation grounds maintenance technician; golf course maintenance; grounds maintenance owner/operator; lawn care/landscape maintenance owner/operator; landscape construction, design, sales, equipment/materials sales; nursery field supervisor, technician; nursery/garden center owner/operator; turf and sod grower, retailer; maintenance/management of urban trees.

Revised: 05/27/2010

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HORTICULTURE SCIENCE
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .... 34 Credits
Goal 1: Written and Oral Communication .... 7 cr
COMM 1114, Fundamentals of Speech, 3 cr
ENGL 1117, Reading & Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ……………………………..…………………..11 cr
BIOL 1220, Concepts of Biology, 4 cr
CHEM 1127, General Inorganic Chemistry, 4 cr
PHYS 1101, Elements of Physics, 3 cr

Goal 4: Mathematics/Logical Reasoning .... 3 cr
MATH 1115, College Algebra, 3 cr

Goal 5: History and the Social and Behavioral Sciences .... 7 cr
ECON 2214, Principles of Economics: Microeconomics, 4 cr
3 credits from MnTC Goal 5

Goal 6: Humanities – the Arts, Literature, and Philosophy .... 6 cr
MCOM 1110, Introduction to Mass Communication, 3 cr
3 credits from MnTC Goal 6

II. Horticulture Core Requirements .... 23 Credits
HORT 1310, Soil Science, 3 cr
HORT 1315, Plant Materials I – Woody Plants, 3 cr
HORT 1320, Plant Materials II – Herbaceous Plants, 3 cr
HORT 2301, Directed Study (Soils), 1 cr
HORT 2330, Plant Propagation, 4 cr
HORT 2331, Greenhouse Operations & Management, 3 cr
HORT Electives, See Electives list below, 6 cr

III. Required Elective…………………………………………………………………………..3 Credits
BUS 1144, Opening & Managing a Business, 3 cr

TOTAL .... .60 Credits

Revised: 03/01/2012

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Rochester College
COMMUNITY AND TECHNICAL

1ST SEMESTER ELECTIVES:
HORT 1318, Introduction of Turfgrass Mgmt, 3 cr
HORT 2335, Landscape Design, 3 cr
(Pre-requisite HORT 1315, HORT 1320)
HTFL 1328, Floral Design & Merchandising, 3 cr

2ND SEMESTER ELECTIVES:
HORT 1323, Introduction to Horticulture, 3 cr
HORT 2350, Integrated Plant/Pest Mgmt, 2 cr
HTFL 2341, Greenhouse Crop Production, 4 cr
(Pre-requisite HORT 2331)
HTFL 2342, Interior Plants and Plantscaping, 3 cr
HTLS 1322, Turf and Grounds Mgmt, 4 cr
(Pre-requisite HORT 1318)
HTLS 2343, Landscape Installation & Construction, 4 cr
HTLS 2345, Golf Course Field Operations, 3 cr
(Pre-requisite HORT 1318)

COURSE SEQUENCE:
YEAR 1, SEMESTER 1, 14 Credits
HORT 1310, Soil Science, 3 cr
(+ Soil Science Directed Study), 1 cr
HORT 1315, Plant Materials I - Woody Plants, 3 cr
MATH 1115, College Algebra, 3 cr
ECON 2214, Principles of Economics: Micro, 4 cr

YEAR 1, SEMESTER 2, 14 Credits
HORT 1320, Plant Materials II - Herbaceous Plants, 3 cr
BIOL 1220, Concepts of Biology, 4 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Speech, 3 cr

YEAR 2, SEMESTER 1, 13 Credits
HORT 2330, Plant Propagation, 4 cr
HORT 2331, Greenhouse Operations & Mgmt, 3 cr
Liberal Arts Electives, 3 cr
PHYS 1101, Elements of Physics, 3 cr

YEAR 2, SEMESTER 2, 13 Credits
CHEM 1127, General Inorganic Chemistry I, 4 cr
BUS 1144, Opening & Managing a Business, 3 cr
Liberal Arts Electives, 3 cr
MCOM 1110, Introduction to Mass Communication, 3 cr
Horticulture Electives during 2 years, 6 cr

TOTAL..**60 Credits**

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

HORTICULTURE TECHNOLOGY
Associate in Applied Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements**………....15 Credits
   Goal 1: Written and Oral Communication…………..……………………..…3 cr
   Credits from MnTC Goal 1

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences …………………………………………..………………3 cr
   BIOL 1102, Plant Biology, 3 cr

   Goal 5: History and the Social and Behavioral Sciences ………………….………3 cr
   Credits from MnTC Goal 5

   Goal 6: Humanities—the Arts, Literature, Philosophy ………………………3 cr
   Credits from MnTC Goal 6

   Electives…………………………………………………………………………………..3 cr
   Three credits chosen from courses meeting the Minnesota Transfer Curriculum
   competencies in Goal areas 1-10.

II. **Professional Program-Related Requirements**…………………………………………..31 Credits
   HORT 1310, Soil Science, 3 cr
   HORT 1315, Plant Materials I-Woody Plants, 3 cr
   HORT 1318, Introduction to Turfgrass Management, 3 cr
   HORT 1320, Plant Materials II-Herb Plants, 3 cr
   HORT 1323, Introduction to Horticulture, 3 cr
   HORT 2330, Plant Propagation, 4 cr
   HORT 2331, Greenhouse Operations and Management, 3 cr
   HORT 2335, Landscape Design, 3 cr
   HORT 2350, Integrated Plant/Pest Management, 2 cr
   HORT 2399, Horticulture Seminar, 1 cr
   HORT 2303, Horticulture Internship, 3 cr

III. .**Technical Electives**……….. .14 Credits
   14 credits chosen from the following:
   HORT 1325, Urban Forestry, 3 cr
   HORT 2301, Directed Study, 1 cr
   HORT 2302, Directed Study, 2 cr
   HORT 2390, World Horticulture, 2 cr
   HTFL 1328, Floral Design and Merchandising, 3 cr
   HTFL 2341, Greenhouse Crop Production, 4 cr
   HTFL 2342, Interior Plants and Plantscaping, 3 cr

HTLS 1322, Turf and Grounds Maintenance, 4 cr
HTLS 2332, Arboriculture, 3 cr
HTLS 2343, Landscape Installation/Construction, 4 cr
HTLS 2345, Golf Course Field Operations, 3 cr

TOTAL .... .60 Credits

COURSE SEQUENCE:

Year 1/1st Semester	Year 1/2nd Semester	Year 2/1st Semester	Year 2/2nd Semester
HORT 1310	HORT 1320	HORT 2331	HORT 2399
HORT 1315	BIOL 1102	HORT 2330	
HORT 1323		HORT 2335	
		HORT 2350	

Technical Electives Available:

HORT 2301 (instructor permission)	HTLS 1322
HORT 2302 (instructor permission)	HTFL 1328
HORT 1325	HTFL 2341 (prerequisite HORT 2331)
HORT 2390	HTFL 2342
HTLS 2332 (prerequisite HORT 1310 & 1325)	HTLS 2343
	HTLS 2345 (prerequisite HORT 1318)

PURPOSE:
The Horticulture Technology curriculum provides students with the general education and technical skills to meet the demand for employment opportunities in Landscaping, Golf Course, Grounds Maintenance, Urban Forestry, Floriculture, Interior plantscaping, and Horticulture Crop production. Well trained personnel are needed to meet the customer demands for horticulture goods and services. Today's customers of horticulture products and services are more knowledgeable and demanding. They seek quality products and numerous services. These demands are the basis of employment opportunities in Horticulture Technology Careers. Specialization and departmentalization have created an increased need for skillfully trained personnel. Many employment opportunities in horticulture allow for advancement to supervisory and managerial positions. Businesses of horticulture products or services require skilled employees and managers to be successful. Upon graduation, depending on the curriculum choices, a student could perform in the following occupational areas: floral designer, grower, shop manager, garden center manager, technician, salesperson, greenhouse owner/operator, technician; horticulture equipment/supplies sales; public recreation grounds maintenance technician; golf course maintenance; grounds maintenance owner/operator; lawn care/landscape maintenance owner/operator; landscape construction, design, sales, equipment/materials sales; nursery field supervisor, technician; nursery/garden center owner/operator; turf and sod grower, retailer; maintenance/management of urban trees.

Revised: 11/09/2011

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HUMAN SERVICES SPECIALIST
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements............... 24 Credits**
    Goal 1: Written and Oral Communication ....7 cr
    ENGL 1117, Reading & Writing Critically I, 4 cr
    COMM 1114, Fundamentals of Speech, 3 cr **OR** COMM 1130 Interpersonal Communication, 3 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences   4 cr
    BIOL 1110, Human Biology, 4 cr

    Goal 5: History and the Social and Behavioral Sciences ....10 cr
    PSYC 2618, General Psychology, 4 cr
    PSYC 2626, Human Growth & Development, 3 cr
    SOC 1614, Introduction to Sociology, 3 cr

    Goal 6: The Humanities - the Arts, Literature, and Philosophy ………...…....3 cr
    Credits from MnTC Goal 6

II. **Electives from MnTC Courses…………………………………………..…........9 cr**
    Suggested course recommended for student articulating to a 4-year social work program
    MATH 2208, Fundamentals of Statistics, 4 cr

III. **Professional Program-Related Courses ....27 Credits**
    NA 1500, Nursing Assistant Theory & Clinical, 3 cr
    HS 1511, Medication Admin for Unlicensed Personnel, 2 cr
    HS 1522, Introduction to Human Services, 3 cr
    HS 1530, Health Issues, 2 cr
    HS 1532, Therapeutic Techniques, 2 cr
    HS 1550, Mental Health Disorders for HST Workers, 2 cr
    HS 1560, Chemical Dependency Theory, 2 cr
    HS 1570, Developmental Disabilities Theory, 2 cr
    HS 1555, Mental Health Field Experience, 3 cr
    HS 1565, Chemical Dependency Field Experience, 3 cr
    HS 1575, Developmental Disabilities Field Experience, 3 cr

TOTAL .... 60 Credits

Notice of Minnesota Background Check Requirement
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https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

PURPOSE: This program is designed to provide an opportunity for individuals interested in working in human services to continue their education, gain increased knowledge and fulfill career advancement objectives. An Associate in Science Degree will be earned upon completing the Human Services Technician Diploma program and the required general education courses.

OCCUPATIONAL OBJECTIVES: The human services profession offers various employment options for qualified persons. Possible career choices include such job titles as mental health worker, case manager, resident counselor, unit coordinator, job coach and chemical dependency technician. Employment opportunities exist in state, county private, and community related human service programs providing services to individuals focusing on areas of chemical dependency, mental impairments, mental health issues, geriatrics, and/or physical impairments.

Revised: 03/01/2012

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HUMAN SERVICES TECHNICIAN:
Chemical Health Assistant
Certificate

I. **RCTC General Education: Allied Studies** ....…..1 Credit
    Area 11: Health and Wellness……………………………………… .... 1 cr
    HLTH 1109, Community CPR/First Aid & Safety, 1 cr

II. **Major Requirements** ....10 Credits
    NA 1500, Nursing Assistant Theory and Clinical, 3 cr
    HS 1511, Medication Administration for Unlicensed Personnel, 2 cr
    HS 1560, Chemical Dependency, 2 cr
    HS 1565, Chemical Health Field Experience, 3 cr

TOTAL……………………………………………………………………..……...…….11 Credits

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https://www.revisor.mn.gov/statutes/?id=245C.15.   Information about completing the background study will be available from program faculty.

Revised: 02/24/2010

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HUMAN SERVICES TECHNICIAN:
Developmental Disabilities Assistant
Certificate

I. **RCTC General Education: Allied Studies** ....1 Credit
    Area 11: Health and Wellness………………….. ....1 cr
    HLTH 1109 , Community CPR/First Aid & Safety, 1 cr

II. **Major Requirements** ....10 Credits
    NA 1500, Nursing Assistant Theory and Clinical, 3 cr
    HS 1511, Medication Administration for Unlicensed Personnel, 2 cr
    HS 1570, Developmental Disabilities, 2 cr
    HS 1575, Developmental Disabilities Field Experience, 3 cr

TOTAL………………………………………………………………………………..……...…..11 Credits

Notice of Minnesota Background Check Requirement
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https://www.revisor.mn.gov/statutes/?id=245C.15.   Information about completing the background study will be available from program faculty.

Revised: 02/24/2010

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HUMAN SERVICES TECHNICIAN:
Mental Health Assistant
Certificate

I. **RCTC General Education: Allied Studies** ....1 Credit
   Area 11: Health and Wellness……………………...1 cr
   HLTH 1109, Community CPR/First Aid & Safety, 1 cr

II. **Major Requirements** ....10 Credits
   NA 1500, Nursing Assistant Theory and Clinical, 3 cr
   HS 1511, Medication Administration for Unlicensed Personnel, 2 cr
   HS 1550, Mental Health Disorders for HST Workers, 2 cr
   HS 1555, Mental Health Field Experience, 3 cr

TOTAL..11 Credits

Notice of Minnesota Background Check Requirement
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Revised: 02/24/2010

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

HUMAN SERVICES TECHNICIAN
Diploma

I. **Minnesota Transfer Curriculum (MnTC) General Education Courses .... 8 Credits**
    Goal 1: Written and Oral Communication .... 4 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr

    Goal 5: History and the Social and Behavioral Sciences .... 4 cr
    PSYC 2618, General Psychology, 4 cr

II. **RCTC General Education: Allied Studies .... 1 Credit**
    Area 11:   Health and Wellness…………………………………….....……………1 cr
    HLTH 1109, Community CPR/First Aid & Safety, 1 cr

III. **Professional Program-Related Courses .... 27 Credits**
    NA 1500, Nursing Assistant Theory & Clinical, 3 cr
    HS 1511 Medication Admin for Unlicensed Personnel, 2 cr
    HS 1522, Introduction to Human Services, 3 cr
    HS 1530, Health Issues, 2 cr
    HS 1532, Therapeutic Techniques, 2 cr
    HS 1550, Mental Health Disorders for HST Workers, 2 cr
    HS 1560, Chemical Dependency Theory, 2 cr
    HS 1570, Developmental Disabilities Theory, 2 cr
    *HS 1555, Mental Health Field Experience, 3 cr
    *HS 1565, Chemical Dependency Field Experience, 3 cr
    *HS 1575, Developmental Disabilities Field Experience, 3 cr

    *Must be completed prior to field experience

TOTAL .... 36 Credits

Notice of Minnesota Background Check Requirement
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PURPOSE: The Human Services major is designed to prepare students for a variety of careers in human service areas. As team members, graduates will provide health care, treatment, rehabilitation, and behavioral direction for individuals or groups of clients. The three major employment areas include those relating to mental health, developmental disabilities, and chemical dependency. Opportunities for employment include, but are not limited to, state, private, and community human service agencies, nursing homes, and public schools. Instruction includes courses related to providing personal care, communication skills, behavioral and rehabilitation techniques. Emphasis is placed on the three specialty areas. Human services professionals complement the curriculum as guest speakers and by providing guidance during field experiences. Career ladder opportunities are built into the curriculum plan.

Rochester COMMUNITY AND TECHNICAL **College**

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

Students have the option upon satisfactorily completing 11 credits of selected courses to stop out as a Mental Health Assistant, Chemical Health Assistant, or a Developmental Disabilities Assistant. Graduates wishing to continue their education in the human services field may receive college credit with the approval of the receiving institution. Rochester Community and Technical College offers an associate of science degree in human services.

COURSE SEQUENCE: FULL TIME/ONE-YEAR OPTION
36 Credits

FALL
NA 1500, 3 cr
HS 1522, 3 cr
HS 1532, 2 cr
HS 1560, 2 cr
HS 1570, 2 cr
Field Experience, 3 cr

One of the following:
HS 1555 **OR**
HS 1565 **OR**
HS 1575, 3 cr
ENGL 1117, 4 cr
TOTAL   19 cr

SPRING
HS 1511, 2 cr
HS 1530, 2 cr
HS 1550, 2 cr
One of the following:
HS 1555 **OR**
HS 1565 **OR**
HS 1575, 3 cr
HLTH 1109,1 cr
PSYC 2618, 4 cr

TOTAL   17 cr

PART TIME/TWO-YEAR OPTION
36 Credits

FIRST YEAR

FALL
NA 1500, 3 cr
HS 1522, 3 cr
HS 1570, 2 cr
TOTAL   8 cr

SPRING
HS 1530, 2 cr
HS 1575, 3 cr
PSYC 2618, 4 cr
TOTAL   9 cr

SECOND YEAR

FALL
HS 1532, 2 cr
HS 1560, 2 cr
HS 1565, 3 cr
ENGL 1117, 4 cr

TOTAL   11 cr

SPRING
HS 1511, 2 cr
HS 1550, 2 cr
HS 1555, 3 cr
HLTH 1109, 1 cr

TOTAL   8 cr

Revised: 02/24/2010

HEALTH UNIT COORDINATOR
Certificate

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements.....at least 3 Credits
Choose one of the following:
Minnesota Transfer Curriculum Courses:
ENGL 1117, Reading and Writing Critically I, 4 cr
OR
Non-Minnesota Transfer Curriculum Course:
ENGL 1630, English Grammar, 3 cr

II. Professional Courses .... 18 Credits
HUC 1510, Introduction to Health Unit Coordinating, 3 cr
HUC 1515, Station Procedures I, 3 cr
HUC 1516, Station Procedures II, 3 cr
HUC 1519, HUC Communications and Professional Issues, 3 cr
HUC 1524, Intro to Medications for the Health Unit Coordinator, 2 cr
HUC 1529, Health Unit Coordinator Internship, 4 cr

III. Other .... 3 Credits
BTEC 1020, Keyboarding for Computers, 1 cr
BTEC 1600, Introduction to Medical Terminology, 2 cr

Computer .... 3 Credits
Select a minimum of 3 credits from the following:
BTEC 1010, Computer Basics, 1 cr
BTEC 1550, Introduction to Windows, 2 cr
BTEC 1510, Internet Applications, 2 cr
BTEC 2350, Microcomputer Business Applications, 3 cr

TOTAL .... 27 Credits

COURSE SEQUENCE:

Semester I		Semester II		Any Semester	
HUC 1510	3 cr	HUC 1519	3 cr	ENGL 1630	3 cr
HUC 1515	3 cr	HUC 1516	3 cr	or ENGL 1117	4 cr
HUC 1524	2 cr	HUC 1529	4 cr	or ENGL 1917	4 cr
TOTAL	8 cr	TOTAL	10 cr	BTEC 1020	1 cr
				BTEC 1600	2 cr
				Computer	3 cr
				TOTAL	9 or 10 cr

Notice of Minnesota Background Check Requirement
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https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a National Criminal background Study. Information about completing the background study will be available from program faculty.

PURPOSE: The Health Unit Coordinator major is designed to prepare students for careers in health care facilities which require the performance of a variety of office and communication skills. These duties include making special arrangements to meet client needs, scheduling appointments and tests according to doctors' orders, monitoring and ordering supplies, and transcribing doctors' orders to charts and other communication devices. Communicating effectively by telephone and in person with clients, visitors, and facility staff is an important part of the job. Employment may be found in hospitals, nursing homes, clinics, and in other health care facilities.

Revised: 02/24/10

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INTENSIVE CARE PARAMEDIC
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements................**32 Credits**

Goal 1: Written and Oral Communications ....**7 cr**
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Public Speaking **OR** COMM 1130, Interpersonal Communications, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ....**12 cr**
BIOL 1217, Anatomy and Physiology I, 4 cr
BIOL 1218, Anatomy and Physiology II, 4 cr
CHEM 1117, General Organic & Biological I Chemistry, 4 cr

Goal 5: History and the Social and Behavioral Sciences ....**10 cr**
SOC 1614, Introduction to Sociology, 3 cr
PSYC 2618, General Psychology, 4 cr
PSYC 2626, Human Growth and Development, 3 cr

Goal 6: Humanities – the Arts, Literature and Philosophy ....**3 cr**
PHIL 1135, Bioethics, 3 cr <u>OR</u> PHIL 1125, Ethics, 3 cr

II. Paramedic Core Requirements...**40 Credits**
ICP 1000, Intro to Paramedicine, 1 cr
ICP 1005, EMS Skills I, 1 cr
ICP 1006, Disease Pathophysiology, 2 cr
ICP 1010, Pharmacology, 3 cr
ICP 1015, EMS Skills II, 2 cr
ICP 1020, Trauma Care, 3 cr
ICP 1025, Cardiac Care, 4 cr
ICP 1030, Pathophysiology in EMS, 3 cr
ICP 1035, Special Populations, 1 cr
ICP 1040, EMS Advanced Skills, 2 cr
ICP 1041, EMS Operations, 1 cr
ICP 1045, Ambulance Clinical I, 3 cr
ICP 1050, Critical Care Clinical I, 2 cr
ICP 1055, Critical Care Clinical II, 3 cr
ICP 1060, Ambulance Clinical II, 3 cr
ICP 1065, Ambulance Clinical III, 3 cr
ICP 1070, Paramedic Preparation, 1 cr

III. Electives…………………....……………………………………………………………………**3 Credits**
EMT 1210, Ambulance Operations for the EMT, 4 cr
HLTH 1108, Weight Management Through Nutrition and Fitness, 3 cr
HLTH 1111, Health Education, 3 cr
HLTH 1132, Drug Use and Abuse, 3 cr
MATH 1115, College Algebra, 3 cr
PHED 1105, Lifetime Fitness, 3 cr

TOTAL ....**75 Credits**

Notice of Minnesota Background Check Requirement
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https://www.revisor.mn.gov/statutes/?id=245C.15.   Information about completing the background study will be available from program faculty.

Purpose: As the most highly trained pre-hospital care provider in EMS, the paramedic accepts the challenging responsibility for patient care. Paramedicine is a relatively young field with a wide range of employment opportunities.

Pre-requisites:
1.   High School diploma or GED.
2.   Enrollment at RCTC.
3.   Elementary Algebra (MATH 0098) with a "C" or better or equivalent.
4.   Three credits of college composition, ENGL 1117 or higher suggested.
5.   State certified and nationally registered as an EMT-Basic or Intermediate.
6.   Biology and Chemistry classes to be completed no more than five years prior to admission to the program.
7.   Letter of recommendation from the applicant's Medical Director or Ambulance Service Director.

Application to the Intensive Care Paramedic Program:
•   Complete RCTC Intensive Care Paramedic application form.
•   Seek academic advisement to ensure that all prerequisites are completed.
•   **Applications received by June 15ᵗʰ with completed prerequisites on file** will be given first consideration.
•   Should there be more qualified applicants than are spaces available, students will be admitted according to GPA ranking.

Admission: Admitted students are required to:
•   Submit completed health forms; physical exam, immunizations, hepatitis, annual mantoux and health insurance documentation. Forms available online: www.rctc.edu/services/health/health-forms.html
•   Complete the State of Minnesota Background Study Form (completed during the first week of the semester).

Revised: 03/13/2013

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INDIVIDUALIZED STUDIES
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…………...30 Credits**
    Goal 1: Written and Oral Communication ……………………………...…..…..…7 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr
    COMM 1114, Fundamentals of Public Speaking **OR** COMM 1130, Interpersonal Communication, 3 Cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences
    Credits from MnTC Goal 3
    OR
    Goal 4: Mathematics/Logical Reasoning …………………………….………..3 cr
    Credits from MnTC Goal 4

    Goal 5: History and the Social and Behavioral Sciences ……………....……….3 cr
    Credits from MnTC Goal 5

    Goal 6: Humanities—the Arts, Literature, and Philosophy …………………....3 cr
    Credits from MnTC Goal 6

    MNTC General Education Electives………………………………….………..14 cr
    Select any MNTC approved courses from the above areas. With at least one 3-credit
    selection from courses in Goals 7-10.

II. **Career Exploration…..……………………………..…..………......................................0-1 Credits**
    CAOR 1103, Career Exploration Seminar, 1 cr
    OR
    Approved waiver

III.   **Electives………………………………………………………..………..…………29-30 Credits**
    Any RCTC courses numbered above 1000 and in approved degree plan

TOTAL……………………………….…………………………………….………...60 Credits

Purpose: The Individualized Studies AS Degree is designed for students who have well-defined career
goals but need some flexibility to accomplish them. The program is intended to provide students
with the opportunity to develop specific competencies, including a strong liberal arts background,
and earn a degree not available through existing RCTC programs. Students who have technical
diplomas, credit for prior learning, or partially completed degrees may find this an expedited pathway
to degree completion. A separate application for admission to this program is required. Students
must meet with an RCTC advisor or counselor to identify their individualized study plan. Final
approval is granted by the RCTC Transfer Specialist.

Implementation: Fall 2012

For information, contact the Welcome Center at 507-285-7557
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ART + DESIGN:
INTERACTION DESIGN
Associate in Science Degree

I. **Minnesota Transfer Curriculum General Education Requirements……...…………30 Credits**
   Goal 1: Written and Oral Communication ....**7 cr**
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Speech, **OR** COMM 1130, Interpersonal Communication, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ....**3 cr**
   Credits from MnTC Goal 3

   Goal 4: Mathematics/Logical Reasoning ....**3 cr**
   MATH 1111, Contemporary Concepts in Mathematics, 3 cr
   or higher level mathematics course that meets MnTC Goal 4

   Goal 5: History and the Social and Behavioral Sciences ....**3 cr**
   Credits from MnTC Goal 5

   Goal 6: Humanities—the Arts, Literature and Philosophy ....**3 cr**
   ART 1110, Art Appreciation, 3 cr

   MNTC General Education Electives………………….…………………… 11 cr
   Credits chosen from courses meeting MnTC Competencies in Goal areas 1-10.

II. **Professionally-Related Requirements…..………………………………………………..30 Credits**
   <u>Required</u>: ART 1120, Computer as Creative Media, 3 cr
   ART 1124, Graphic Design I, 3 cr
   ART 1130, Digital Art I, 3 cr
   ART 1232, Interactive Web Design I, 3 cr
   ART 1233, Interactive Web Design II, 3 cr
   ART 2240, Motion Graphics I, 3 cr
   ART 2241, Motion Graphics II, 3 cr

   <u>**Electives ~ Pick three of the following**</u>:
   †ART 1121, 2D Design, 3 cr
   ART 1131, Presentation Graphics, 3 cr
   †ART 1184, Introduction to Digital Photography, 3 cr
   †ART 2217, Art and Design Projects, 3 cr
   ART 2230, Digital Art II, 3 cr
   ART 2237, Animation and 3D Modeling, 3 cr
   COMP 1731, Web Application Development, 3 cr
   COMP 1741, Client-Side Scripting, 3 cr

   †This class is not offered online.

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Students completing program prior to the end of Spring 2013 may use BUS 2144, Introduction to e-Business as a Professionally-related Elective.

TOTAL ....………..……………..……60 Credits

PURPOSE: The purpose of the Interaction Design A.S. Degree Program is to provide the first two years of experience for transfer to any higher education institution for careers in Interaction or Web Design. There are many opportunities in Interaction or Web Design careers such as designing the look-and-feel of web sites, developing web sites, creating web content for mobile devices, conducting usability and accessibility studies of web sites, and creating content for delivery over the web.

An Articulation Agreement has been established between Rochester Community and Technical College and Minnesota State University, Moorhead. As a result, students will be able to transfer the Interaction Design Program as a package. Students will enter the transfer program at earning full credit for RCTC's two-year degree program.

All of the classes in this degree are offered online; many of the classes are offered in a face-to-face classroom. Students may choose to take the class in either format.

Revised: 03/13/2013

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LABORATORY SCIENCE
Associate in Science

This program is articulated with the Bachelor of Science degree in Clinical Laboratory Science offered by the University of North Dakota. Students who complete this program can continue next two years of study at UND and receive a Bachelor of Science degree in CLS.

I.   **Minnesota Transfer Curriculum (MnTC) General Education Requirements…. ……….30 Credits**
     Goal 1: Written and Oral Communication ....10 cr
     COMM 1114, Fundamentals of Public Speaking, 3 cr
     ENGL 1117, Reading & Writing Critically I, 4 cr
     ENGL 1109, Introduction to Technical Communication, 3 cr
     (ENGL 1118, Reading & Writing Critically II, 4 cr may be substituted for ENGL 1109)

     Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

     Goal 3: Natural Sciences .... 8 cr
     BIOL 1220, Concepts of Biology, 4 cr
     CHEM 1127, Chemical Principles I, 4 cr

     Goal 4: Mathematics/Logical Reasoning …….....………...…………………. 3 cr
     MATH 1115, College Algebra, 3 cr

     Goal 5: History and the Social and Behavioral Sciences ………..……………6 cr
     Choose any one class from each Psychology & Sociology
     PSYC 1611, Psychology of Adjustment, 3 cr (recommended)
     SOC 1614, Introduction to Sociology, 3 cr (recommended)

     Goal 6: Humanities – the Arts, Literature and Philosophy ....3 cr
     Choose one class from MnTC Goal 6
      PHIL 1125, Ethics, 3 cr (recommended)

II. **Professional Core Requirements** ………………………………………..…………… 30 Credits
     BIOL 1217, Anatomy and Physiology I, 4 cr
     BIOL 1218, Anatomy and Physiology II, 4 cr
     BIOL 1230, Survey of Life Forms, 4 cr
     BIOL 2021, Microbiology, 4 cr
     BTEC 1600, Introduction to Medical Terminology, 2 cr
     CHEM 1118, General, Organic and Biological Chemistry II, 4 cr
     CHEM 1128, Chemical Principles, 4 cr
     CHEM 2100, Survey of Organic Chemistry, 4 cr

TOTAL ……………………………………………………………………..…....…………..60 Credits

Revised: 03/01/2012

Rochester College
COMMUNITY AND TECHNICAL

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LAW ENFORCEMENT
Associate in Applied Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements………....16 Credits**
    Goal 1: Written and Oral Communication …………………….…….…………4 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences
    OR
    Goal 4: Mathematics/Logical Reasoning …………………………….……..3 cr
    Three credits from MnTC Goal 3 courses
    OR MATH 1111, Contemporary Concepts, 3 cr **OR** higher level Math course

    Goal 5: History and the Social and Behavioral Sciences ..…………………….6 cr
    SOC 1614, Introduction to Sociology, 3 cr
    SOC 2625, Minority Group Relations, 3 cr

    Goal 6: Humanities—the Arts, Literature, Philosophy …………..…………..3 cr
    Credits from MnTC Goal 6

II. **Professional Program-Related Requirements…………………..……………………….31 Credits**
    LAWE 1105, Introduction to Law Enforcement, 3 cr
    LAWE 1112, Introduction to Criminal Investigations, 4 cr
    LAWE 1115, Basic Firearms, 2 cr
    LAWE 2110, Police Report Writing, 2 cr
    LAWE 2119, Minnesota Criminal and Traffic Statutes, 3 cr
    LAWE 2121, Human Behavior and Ethics in Law Enforcement, 3 cr
    LAWE 2122, Criminal Procedure, 3 cr
    LAWE 2127, Juvenile Law & Procedures, 3 cr
    LAWE 2140, Patrol Operations, 2 cr
    CRJU 1215, Homeland Security/Defense, 3 cr
    EMC 1121, First Responder, 3 cr

    SKILLS Courses …………………..……………………………………..…………….10 Credits
    *LAWS 2101, Crime Scene Processing, 2 cr
    *LAWS 2102, Traffic Enforcement, 2 cr
    *LAWS 2103, Defensive Tactics, 2 cr
    *LAWS 2104, Firearms for SKILLS, 2 cr
    *LAWS 2105, Patrol Practicals, 2 cr

    ***Tuition differential associated with these courses**

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III. Health and Physical Education Requirements………………………………………………3 Credits
      3 credits of PHED activity courses are required.
      Recommended: PHED 1189, Boot Camp, 1 cr and PHED 1122, Circuit Training, 1 cr

TOTAL……………………………….………………………………………......…………60 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Revised: 03/13/2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

LAW ENFORCEMENT
Associate in Science

I.   Minnesota Transfer Curriculum (MnTC) General Education Requirements………..30 Credits
   Goal 1: Written and Oral Communication …………….…..………………4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences …………………………………………………..3 cr
   Three credits from MnTC Goal 3 courses

   Goal 4: Mathematics/Logical Reasoning ………………………………..…..3 cr
   MATH 1111, Contemporary Concepts, 3 cr **OR** higher level Math course

   Goal 5: History and the Social and Behavioral Sciences ..……………….....…9 cr
   SOC 1614, Introduction to Sociology, 3 cr
   PSYC 1611, Psychology of Adjustment, 3 Cr **OR** PSYC 2618, General Psychology, 4 Cr
   SOC 2625, Minority Group Relations, 3 cr

   Goal 6: Humanities—the Arts, Literature, Philosophy ..……………………..3 cr
   Credits from MnTC Goal 6

   Electives: MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS……………...8 cr

II.   Professional Program-Related Requirements……………………………………..…..28 Credits
   LAWE 1105, Introduction to Law Enforcement, 3 cr
   LAWE 1112, Introduction to Criminal Investigations, 4 cr
   LAWE 1115, Basic Firearms, 2 cr
   LAWE 2110, Police Report Writing, 2 cr
   LAWE 2119, Minnesota Criminal and Traffic Statutes, 3 cr
   LAWE 2121, Human Behavior and Ethics in Law Enforcement, 3 cr
   LAWE 2122, Criminal Procedure, 3 cr
   LAWE 2127, Juvenile Law & Procedures, 3 cr
   LAWE 2140, Patrol Operations, 2 cr
   EMC 1121, First Responder, 3 cr

III. SKILLS courses……………………..………..…...……………………………………….10 Credits
   *LAWS 2101, Crime Scene Processing, 2 cr
   *LAWS 2102, Traffic Enforcement, 2 cr
   *LAWS 2103, Defensive Tactics, 2 cr
   *LAWS 2104, Firearms for SKILLS, 2 cr
   *LAWS 2105, Patrol Practicals, 2 cr

   *Tuition differential associated with these courses
   TOTAL……………...…………………………………………………………..…………68 Credits

Notice of Minnesota Background Check Requirement

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Revised: 03/13/2013
Implementation: Fall 2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

LAW ENFORCEMENT
Certificate

I. **Professional Program-Related Requirements**………………………………….…..…..**18 Credits**
    LAWE 1115, Basic Firearms, 2 cr
    LAWE 2110, Police Report Writing, 2 cr
    LAWE 2119, Minnesota Criminal and Traffic Statues, 3 cr
    LAWE 2121, Human Behavior and Ethics in Law Enforcement, 3 cr
    LAWE 2122, Criminal Procedure, 3 cr
    LAWE 2127, Juvenile Law and Procedures, 3 cr
    LAWE 2140, Patrol Operations, 2 cr

II. **SKILLS courses**……………………………………………………………….………**10 Credits**
    *LAWS 2101, Crime Scene Processing, 2 cr
    *LAWS 2102, Traffic Enforcement, 2 cr
    *LAWS 2103, Defensive Tactics, 2 cr
    *LAWS 2104, Firearms for SKILLS, 2 cr
    *LAWS 2105, Patrol Practicals, 2 cr

    *Tuition differential associated with these courses

TOTAL…………………………………………………………………...…………**28 Credits**

<u>Notice of Minnesota Background Check Requirement</u>
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Program Admission Requirements:
LAWE 1105, Introduction to Law Enforcement, 3 cr
LAWE 1112, Introduction to Criminal Investigations, 4 cr

All certificate students are required to be certified first responders. This can be done outside of the college or by taking the following course:
EMC 1121, First Responder, 3 cr

All certificate students are required by POST to have a Diversity course. This can be done from your transferring college or by taking the following course:
SOC 2625, Minority Group Relations, 3 cr

Revised: 03/13/2013

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

LIBERAL ARTS AND SCIENCES
Associate in Arts

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements.................40 Credits

Goal 1: Written and Oral Communication ....11 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
ENGL 1118, Reading and Writing Critically II, 4 cr
COMM 1114, Fundamentals of Public Speaking **OR** COMM 1130, Interpersonal Communication, 3 Cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .... minimum of 6 cr
A minimum of <u>two</u> courses with a lab from two different areas that meet MnTC Goal 3

Goal 4: Mathematics/Logical Reasoning .... minimum of 3 cr
MATH 1111 or higher

Goal 5: History and Social and Behavioral Sciences ………….....…minimum of 9 cr
A minimum of <u>two</u> credits from each of <u>three</u> areas from MnTC Goal 5

Goal 6: The Humanities-the Arts, Literature and Philosophy….minimum of 9 cr
A minimum of <u>two</u> credits from each of <u>three</u> areas from MnTC Goal 6

Goals 7, 8, 9, 10: <u>Two</u> credits from each of the following areas:

Goal 7: Human Diversity   **Goal 8: Global Perspective**
Goal 9: Ethic & Civic Responsibility   **Goal 10: People & the Environment**

II. Health and Physical Education Requirements..3 Credits
Any combination of Health courses (numbered 1102, 1109, 1110, 1111, 1114, 1132, 1135, 2126)
and/or Physical Education Courses (numbered 1100-1199). 1 credit may be from Varsity Athletics,
(PHED 1210 – 1236; PHED 2210 – 2236).

First Year Experience, 1 cr*

*FYEX 1000, College Success Strategies, required of some entering students.

III. Electives
Any course numbered above 1000 ....17 Credits

IV. TOTAL...60 Credits

Revised: 03/01/2012

MASS COMMUNICATION
Associate in Science

I. **Minnesota Transfer Curriculum General Education Requirements…………………..30 Credits**
    Goal 1: Written and Oral Communication …………………………………………11 cr
    ENGL 1117, Reading and Writing Critically I, 4 cr
    ENGL 1118, Reading and Writing Critically II, 4 cr
    COMM 1114, Fundamentals of Public Speaking, 3 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences …………………………………………………….…..3 cr
    Three credits from MnTC Goal 3
    OR
    Goal 4: Mathematics/Logical Reasoning …………………………………..……..3 cr
    MATH 1111, Contemporary Concepts, 3 credits **OR** higher level Math course

    Goal 5: History and the Social and Behavioral Sciences ..……..……..………..9 cr
    HIST 1625, U.S. History 1865-Present, 3 cr
    POLS 1615, Introduction to American Government, 3 cr
    MCOM 1110, Introduction to Mass Communication, 3 cr

    Goal 6: Humanities—the Arts, Literature, and Philosophy ……………..…..3 cr
    ART 1184, Introduction to Digital Photography I, 3 cr

    Additional MnTC General Education Electives………………………...………… 4 cr
    Recommended:
    MCOM 1106, American Cinema, 3 cr

II. **Program-Related Professional Requirements…………………………………...………22-25 Credits**
    MCOM 1132, Principles of Advertising, 3 cr
    MCOM 2210, Public Relations **OR** MCOM 1140, Principles of Broadcasting, 3 cr
    MCOM 2290, Mass Communications Law/Ethics, 3 cr
    MCOM 2130, Mass Communication Theory, 3 cr
    MCOM 1245, Writing for Mass Media, 3 cr
    MCOM 2215, New Media Layout and Design, 3 cr
    MCOM 2295, Media Portfolio Production, 1-3 cr
    ART 1232, Interactive Web Design I, 3 cr

III. **Professional Electives……………………………………..……………………..………………5-8 Credits**
    Students should take at least 3-6 credits of electives for the completion of a general Mass Communication degree.
    MCOM 1190, Video Production, 3 cr
    MCOM 2240, Television Production, 3 cr
    MCOM 1122, Beginning Newswriting, 3 cr
    MCOM 1161, Publications Lab I, 1 cr
    MCOM 2220, Radio Production, 3 cr

MCOM 2261, Publications Lab II, 1 cr
MCOM 2165, Special Topics in Mass Communication, 3 cr
MCOM 2294, Mass Communication Internship, 1-4 cr

ART 1124, Graphic Design I, 3 cr
ART 1131, Presentation Graphics, 3 cr
BUS 2201, Principles of Marketing, 3 cr
BUS 2215, Salesmanship, 3 cr
MUSC 1621, Audio Production 1, 3 cr

TOTAL...**60 Credits**

Revised: 12/05/2012
Implementation: Fall 2013

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MEDICAL SECRETARY
Associate in Applied Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements.............. .21 Credits**
    Goal 1: Written and Oral Communication..**4 cr**
    ENGL 1117, Reading and Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences...**4 cr**
    BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr

    Goal 5: History and the Social and Behavioral Sciences............................... **3 cr**
    PSYC 1611, Psychology of Adjustment, 3 cr **OR** PSYC 2618, General Psychology, 4 cr

    Goal 6: The Humanities – the Arts, Literature, and Philosophy.....................**3 cr**
    Credits from MnTC Goal 6

    Goal 7: Human Diversity ……………………………………………………………**3 cr**
    COMM 1130, Interpersonal Communications, 3 cr

    Area 12: Computer/Information Literacy ....**3 cr**
    BTEC 1320, Word Processing I, 3 cr

    Area 13: Career and Personal Development ....**1 cr**
    BTEC 2870, Employment Strategies, 1 cr

    Note: Course descriptions are available on the online catalog site located at
    http://www.rctc.edu/catalog/index/html

II. **Professionally-Related Business Requirements..… .39 Credits**
    BTEC 1001, Online Learning and Computing, 1 cr
    BTEC 1030, Keyboarding Speed and Accuracy, 1 cr
    BTEC 1220, Human Relations in Organizations, 3 cr
    BTEC 1600, Introduction to Medical Terminology, 2 cr
    BTEC 1650, Quality Issues for Medical Transcription, 2 cr
    BTEC 1670, Medical Transcription I, 3 cr
    BTEC 1680, Medical Transcription II, 3 cr
    BTEC 2200, Information Resource Management, 3 cr
    BTEC 2220, Business Communications, 3 cr
    BTEC 2460, Computer Voice Recognition, 1 cr
    BTEC 2614, Customer Service Skills and Concepts, 3 cr
    BTEC 2650, Medical Office Procedures, 3 cr
    BTEC 2880 Developing an Electronic Portfolio, 1 cr
    HIMC 2620, Pathophysiology and Pharmacology I, 3 cr
    HIMC 2630, Pathophysiology and Pharmacology II, 3 cr

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Computer Courses – Choose one of the following options:
Option 1:
BTEC 2355, Microcomputer Applications with PowerPoint, 4 cr
Option 2:
BTEC 2350, Microcomputer Business Applications, 3 cr
AND
BTEC 2450, PowerPoint, 1 cr

TOTAL .... **60 Credits**

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

Purpose: This program prepares students for employment in the medical field as secretaries to physicians and surgeons, in hospitals, clinics, or medical groups. Extensive training is provided in medical terminology, medical transcription and office technology. Students will learn how diseases affect the body and which drugs and other treatments are used to treat illnesses. This degree program is also designed with additional general education requirements for those students who may wish to transfer to another program/institution.

Medical Secretary, A.A.S., Course Sequence

Semester I		Semester II	
BTEC 1030	1 cr	BTEC 1220	3 cr
BTEC 2350	3 cr	BTEC 1320	3 cr
BTEC 1600	2 cr	BTEC 2614	3 cr
BTEC 2460	1 cr	HIMC 2630	3 cr
HIMC 2620	3 cr	PSYC 1611 **or** 2618 (4 cr)	3 cr
COMP 1001	1 cr		
ENGL 1117	4 cr		___
	15 cr		**15/16 cr**

Semester III		Semester IV	
BTEC 1670	3 cr	BTEC 1680	3 cr
BTEC 1650	2 cr	BTEC 2200	3 cr
BTEC 2220	3 cr	BTEC 2650	3 cr
BTEC 2450	1 cr	BTEC 2870	1 cr
BIOL 1107	4 cr	BTEC 2880	1 cr
COMM 1130	3 cr	GENERAL ED	3 cr
(Goal 6)	**16 cr**		**14 cr**

Revised: 03/01/2012

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MEDICAL SECRETARY
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements.............. .30 Credits**
   Goal 1: Written and Oral Communication ....4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences…………………………………….…………….4 cr
   BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
   Choose from MnTC Goal 3 courses

   Goal 5: History and the Social and Behavioral Sciences ....3 cr
   PSYC 1611, Psychology of Adjustment, 3 cr **OR** PSYC 2618, General Psychology, 4 cr
   Choose from Anthropology, Economics, Geography, History, MCOM 1110, Political
   Science, Psychology, Sociology

   Goal 6: Humanities and Fine Arts, Literature, Philosophy ....3 cr
   Credits from MnTC Goal 6

   Goal 7: Human Diversity…………………………………………… .... ….……3 cr
   COMM 1130, Interpersonal Communications, 3 cr

II. **Additional General Education Requirements** ....13 cr
   Students may choose additional elective credits from Goals 1-10 to meet the MNTC general
   education requirements.

III. **Professionally-Related Business Requirements**.. .30 Credits
   BTEC 1220, Human Relations in Organizations, 3 cr
   BTEC 1600, Introduction to Medical Terminology, 2 cr
   BTEC 1650, Quality Issues for Medical Transcription, 2 cr
   BTEC 1670, Medical Transcription I, 3 cr
   BTEC 1680, Medical Transcription II, 3 cr
   BTEC 2220, Business Communications, 3 cr
   HIMC 2620, Pathophysiology I, 3 cr
   HIMC 2630, Pathophysiology II, 3 cr
   BTEC 2650, Medical Office Procedures, 3 cr
   BTEC 2870, Employment Strategies, 1 cr
   Computer Courses – Choose one of the following options:
   Option 1:
   BTEC 2355, Microcomputer Applications with PowerPoint, 4 cr
   Option 2:
   BTEC 2350, Microcomputer Business Applications, 3 cr
   AND
   BTEC 2450, PowerPoint, 1 cr

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1030 Keyboarding Speed and Accuracy. This class will not count toward the required credits for the program.

TOTAL ....**60 Credits**

Note: Course descriptions are available on the online catalog site located at
http://www.rctc.edu/catalog/index/html

Medical Secretary, A.S., Course Sequence

Semester I		Semester II	
*BTEC 1030	1 cr	ENGL 1117	4 cr
BTEC 1600	2 cr	PSYC 1611 **or** 2618	3-4 cr
GENERAL ED elective		BTEC 2350	3 cr
(See Advisor)	6 cr	HIMC 2630	3 cr
HIMC 2620	3 cr	GENERAL ED goal	
COMM 1130	3 cr	(See Advisor)	3 cr
	14 cr		16 cr

*See note above regarding keyboarding prerequisite.

Semester III		Semester IV	
BTEC 1670	3 cr	BTEC 1220	3 cr
BTEC 2220	3 cr	BTEC 1680	3 cr
BTEC 1650	2 cr	BTEC 2450	1 cr
BIOL 1107	4 cr	BTEC 2650	3 cr
GENERAL ED elective		BTEC 2870	1 cr
(See Advisor)	3 cr	GENERAL ED elective	
	15 cr	(See Advisor)	4 cr
			15 cr

Purpose: This program prepares students for employment in the medical field as secretaries to physicians and surgeons in hospitals, clinics, or medical groups. Extensive training is provided in medical terminology, medical transcription, and office technology. Students will learn how diseases affect the body and which drugs and other treatments are used to treat illnesses. This degree program is also designed with additional general education requirements for those students who may wish to transfer to another program/institution.

Revised: 03/01/2012

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Rochester
COMMUNITY AND TECHNICAL
College

MEDICAL TRANSCRIPTION
Certificate

I. **RCTC General Education: Allied Studies Requirements…………………………..……3 Credits**
    Area 13: Career and Personal Development
    ENGL 1630, English Grammar for Careers, 3 cr

II. **Professionally-Related Program Requirements……………………………...………18 Credits**
    BTEC 1600, Introduction to Medical Terminology, 2 cr
    BTEC 1650, Quality Issues for Medical Transcription, 2 cr
    BTEC 1670, Medical Transcription I, 3 cr
    BTEC 1680, Medical Transcription II, 3 cr
    BTEC 2460, Computer Voice Technology, 1 cr
    HIMC 2620, Pathophysiology and Pharmacology I, 3 cr
    HIMC 2630, Pathophysiology and Pharmacology II, 3 cr

    Option 1 for students enrolling in online delivery of courses:
    BTEC 1001, Computer Online Learning, 1 cr

    Option 2 for students enrolling in land-based courses (traditional course delivery):
    BTEC 2450, PowerPoint, 1 cr

    TOTAL… ....…….21 Credits

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 45 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

Purpose: This abbreviated certificate program is designed to train or retrain students for basic medical transcription skills. Students should have an entrance level keyboarding skill of at least 45 words per minute, current office technology skills, and college level English reading and writing skills.

Note: Course descriptions are available on the online catalog site located at
http://www.rctc.edu/catalog/index/html

Revised: 04/20/2009

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MEDICAL TRANSCRIPTIONIST
Diploma

RCTC General Education: Allied Studies Requirements... ...**7 Credits**

    Area 12: Computer/Information Literacy ....**3 cr**
    BTEC 1320, Word Processing I, 3 cr

    Area 13: Career and Personal Development ....**4 cr**
    BTEC 2870, Employment Strategies, 1 cr
    ENGL 1630, English Grammar for Careers, 3 cr

I.   **Professionally-Related Business Requirements**..**28 Credits**
    BTEC 1220, Human Relations in Organizations, 3 cr
    BTEC 1600, Intro to Medical Terminology, 2 cr
    BTEC 1650, Quality Issues for Medical Transcription, 2 cr
    BTEC 1670, Medical Transcription I, 3 cr
    BTEC 1680, Medical Transcription II, 3 cr
    BTEC 2460, Computer Voice Technology, 1 cr
    HIMC 2620, Pathophysiology and Pharmacology I, 3 cr
    HIMC 2630, Pathophysiology and Pharmacology II, 3 cr
    BTEC 2650, Medical Office Procedures, 3 cr
    BTEC 1001, Online Learning and Computing, 1 cr
    Computer Courses – Choose one of the following options:
    Option 1:
    BTEC 2355, Microcomputer Applications with PowerPoint, 4 cr
    Option 2:
    BTEC 2350, Microcomputer Business Applications, 3 cr
    AND
    BTEC 2450, PowerPoint, 1 cr

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

    TOTAL ....**35 Credits**

Medical Transcription Diploma Course Sequence

Semester I		Semester II	
*BTEC 1030	1 cr	BTEC 1680	3 cr
BTEC 1001	1 cr	BTEC 1220	3 cr
BTEC 1320	3 cr	BTEC 2350	3 cr
BTEC 1600	2 cr	BTEC 2450	1 cr
BTEC 1650	2 cr	BTEC 2460	1 cr
BTEC 1670	3 cr	HIMC 2630	3 cr
HIMC 2620	3 cr	BTEC 2650	3 cr
ENGL 1630	3 cr	BTEC 2870	1 cr
TOTAL	**17 cr**	**TOTAL**	**18**

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Rochester
COMMUNITY AND TECHNICAL
College

*This course is recommended for students keyboarding less than 55 w.p.m.
Note: Course descriptions are available on the online catalog site located at
http://www.rctc.edu/catalog/index/html

Purpose: This is an intensive program for medical transcription training. It stresses extensive building of medical terminology and a highly developed skill in medical transcription as well as general office skills and technology training. Medical letters to referring physicians, along with reports on the medical record regarding the patients' examinations, operations, and tests are emphasized. Students will learn how diseases affect the body and which drugs and other treatments are used to treat illnesses. Students will be trained for transcriptionist and office support positions in medical offices, clinics, hospitals, insurance companies, and firms who provide medical supplies and equipment.

Revised: 04/20/2009

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ART + DESIGN
MOBILE APPLICATION DEVELOPMENT
Certificate

I.   **Core Requirements……………………………………………………………………24 Credits**
ART 1124, Graphic Design I, 3 cr
ART 1232, Interactive Web Design I, 3 cr
ART 1233, Interactive Web Design II, 3 cr
BUS 2144, Introduction to E-Business, 3 cr
COMP 1731, Web Application Development, 3 cr
COMP 1741, Client-Side Scripting, 3 cr
COMP 1751, Mobile Application Development, 3 cr
ENGL 1109, Introduction to Technical Communication, 3 cr

TOTAL………………………………………………………………...………………………24 Credits

PURPOSE:
The purpose of the Mobile Application Development Certificate is to introduce students to specialized knowledge of applications for web and mobile devices. Students will explore web and native language frameworks that are most commonly used in developing applications for mobile devices. Students explore: Interactive design for the web; web and mobile programming; technical and E-business communications practices.

Implementation: Spring 2013

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ART + DESIGN:
MOTION GRAPHICS
Certificate*

I. Core Requirements...**24 Credits**

ART 1120, Computer as Creative Media, 3 cr
ART 1124, Graphic Design I, 3 cr
ART 1130, Digital Art I, 3 cr
ART 1232, Interactive Web Design I, 3 cr
ART 1233, Interactive Web Design II, 3 cr
ART 2237, Animation and 3D Modeling, 3 cr
ART 2240, Motion Graphics I, 3 cr
ART 2241, Motion Graphics II, 3 cr

TOTAL ....**24 Credits**

*Note: This certificate is also available totally as an "on-line" option

PURPOSE: The purpose of the Motion Graphics Certificate Program is to introduce students to the concepts and techniques needed for a motion graphic designer. Students explore image creation, designing for the web, and animation and motion graphics.

This certificate provides students who already have a degree a topic of study as a designer. This certificate is also a great access point to begin the Interaction Design Associate of Science (two-year) Degree Program.

All of the classes in this certificate are offered online; many of the classes are offered in a face-to-face classroom. Students may choose to take the class in either format.

Revised: 06/29/2010

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MUSIC INDUSTRY
Associate in Fine Arts

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements………….30 Credits**
    Goal 1: Written and Oral Communication …………………………………..**7 cr**
    COMM 1114, Fundamentals of Public Speaking, 3 cr
    ENGL 1117, Reading & Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences…………………..…………………………………**3 cr**
    Credits from MnTC Goal 3

    Goal 4: Mathematics/Logical Reasoning……………………………………**3 cr**
    MATH 1111 Contemporary Concepts 3 cr
    OR higher level mathematics course that meets MnTC Goal 4

    Goal 5: History and the Social and Behavioral Sciences……..…………….**3 cr**
    Anthropology, Economics, Geography, History, MCOM 1110, Political Science,
    Psychology or Sociology course that meets MnTC Goal 5

    Goal 6: The Humanities—the Arts, Literature and Philosophy …….....…….**14 cr**
    MUSC 1001, Music Fundamentals, 3 cr
    MUSC 1221, Popular Music in the United Stated, 3 cr
    MUSC 1401, Beginning Class Piano, 2 cr

    Ensemble Performance…………………………………………....………..**6 cr**
    Ensemble Experience: 4 credits **AND** Small Ensemble: 2 credits.
    Select from the following:
    Large Ensemble: (1 credit each: total of 4 credits)
    MUSC 1301, Concert Choir, 1 cr **AND/OR**
    MUSC 1302, Concert Band, 1 cr
    Small Ensemble: (1 credit each: total of 3 credits)
    MUSC 1322, Jazz Band, **AND/OR**
    MUSC 1340, World Drum Ensemble

II. **Professionally-Related Requirements**………..……………………………....……..**30 Credits**
    Piano and Vocal Skills…………………………………………..……….**4 cr**
    MUSC 1402, Intermediate Class Piano, 2 cr
    MUSC 1421, Beginning Class Voice I, 2 cr
    Private Study …………………………………..………………….……..**2 cr**
    MUSC 1450, Applied Voice, 1 cr **OR**
    MUSC 1460, Applied Instrument, 1 cr
    Advanced Music Theory……… …………………………..….………………**8 cr**
    MUSC 1501, Musicianship I, 4 cr
    MUSC 1502, Musicianship II, 4 cr

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Music Technology..…......…...13 cr
MUSC 1601, Electronic Music Composition I, 3 cr
MUSC 1602, Electronic Music Composition II, 2 cr
MUSC 1621, Audio Production I, 3 cr
MUSC 1622, Audio Production II, 3 cr
MUSC 1623, Concert Recording and Sound Reinforcement, 2 cr

Digital Arts...3 cr
ART 1120, Computer As Creative Tool, 3 cr

TOTAL...…..……………..**60 Credits**

Revised: 03/01/2012

MUSIC EDUCATION: INSTRUMENTAL/GENERAL K-12
Associate in Fine Arts

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…………..30 Credits**
   Goal 1: Written and Oral Communication ………………………………..…7 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences …………………………………………………..3 cr
   Credits from MnTC Goal 3

   Goal 4: Mathematics/Logical Reasoning.…………..………………………3 cr
   MATH 1111, Contemporary Concepts, 3 cr
   OR higher level mathematics course that meets MnTC Goal 4

   Goal 5: History and the Social and Behavioral Sciences ……………………..3 cr
   Credits from MnTC Goal 5

   Goal 6: The Humanities—the Arts, Literature and Philosophy ……..……..14 cr
   MUSC 1101, Music Appreciation, 3 cr
   MUSC 1302, Concert Band, 1 cr (repeat 4 semesters), 4 cr
   MUSC 1501, Musicianship I, 4 cr (Upon successful completion of MUSC 1001
        or consent of instructor)
   MUSC 1601, Electronic Music Composition I, 3 cr

II. **Professionally-Related Requirements……..………………………………..……...30 Credits**
   Advanced Music Theory………………………………………..………12 cr
   MUSC 1502, Musicianship II, 4 cr
   MUSC 2501, Musicianship III, 4 cr
   MUSC 2502, Musicianship IV, 4 cr

   Music History………………………………………………………...…..6 cr
   MUSC 1201, History and Survey of Musical Literature I, 3 cr
   MUSC 1202, History and Survey of Musical Literature II, 3 cr

   Small Ensemble ……………………………………………………2 cr
   MUSC 1322, Jazz Band, 1 cr
   MUSC 1340, World Drum Ensemble, 1 cr

   Class Instrument Study………………………………………..……6 cr
   (Total of 4 credits to include MUSC 1421 and any combination of additional classes listed below)
   MUSC 1401 or 1402 (by consent of instructor), Class Piano, 2 cr
   MUSC 1421, Beginning Class Voice, 2 cr
   MUSC 1460, Applied Instrument, (piano or guitar), 1 cr

Private Primary Instrument Study………………………………...………4 cr
    MUSC 1460, Applied Instrument, 1 cr

TOTAL………………………………………………………………….…..**60 Credits**

Revised: 03/01/2012

MUSIC TECHNOLOGY
Associate in Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements**...............**30 Credits**
    Goal 1: **Written and Oral Communication** . ...**7 cr**
    ENGL 1117, Reading & Writing Critically I, 4 cr
    COMM 1114, Fundamentals of Speech **OR** COMM 1130, Interpersonal Communication, 3 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: **Natural Sciences** ....**3 cr**
    Credits from MnTC Goal 3

    Goal 4: **Mathematics/Logical Reasoning** ....**3 cr**
    MATH 1111, Contemporary Concepts in Mathematics, 3 cr
    or higher level mathematics course that meets MnTC Goal 4

    Goal 5: **History and the Social and Behavioral Sciences** ....**3 cr**
    Credits from MnTC Goal 5

    Goal 6: **The Humanities—the Arts, Literature and Philosophy**.........................**14 cr**
    MUSC 1201, History and Survey of Music Literature I, 3 cr
    MUSC 1301 **OR** 1302, Concert Choir and/**OR** Concert Band, 4 cr
    MUSC 1501, Musicianship I, 4 cr
    MUSC 1601, Electronic Music Composition, 3 cr

II. **Professionally-Related Requirements** .... …...**30 Credits**
    Required:
    MUSC 1202, History and Survey of Music Literature II, 3 cr
    MUSC 1322 or 1340, Jazz Band and/or World Drum Ensemble, 2 cr
    MUSC 1401, 1402, or 1421, or 1422, 1450, or 1460, 3 cr
    MUSC 1502, Musicianship II, 4 cr
    MUSC 1602, Electronic Music Composition II, 2 cr
    MUSC 1621, Audio Production I, 3 cr
    MUSC 1622, Audio Production II, 3 cr
    MUSC 1623, Concert Recording & Sound Reinforcement, 2 cr
    MUSC 2501, Musicianship III, 4 cr
    MUSC 2502, Musicianship IV, 4 cr
TOTAL …………………………………………………………………………………………………..**60 Credits**

PURPOSE: The purpose of the Music Technology Emphasis of the Digital Arts Program is to provide the first two years of experience for transfer to any music institution for careers in the following areas: (1) Sound Engineering (audio, video, web); (2) Studio Performance; (3) Music composition; (4) Music Business; and (5) Music Education. The potential careers are many. For further description, please see our careers page at: http://www.roch.edu/dept/digiart/Careers/

Revised: 03/01/2012

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MUSIC TECHNOLOGY
Certificate

I. **Core Requirements**.. ...**24-25 Credits**
   ART 1120, Computer as Creative Media, 3 cr
   MUSC 1401, Class Piano I, 2 cr
   MUSC 1460, Applied Instrumental-Piano, 1 cr
   MUSC 1501, Musicianship I, 4 cr
   MUSC 1502, Musicianship II, 4 cr
   MUSC 1601, Electronic Music Composition I, 3 cr
   MUSC 1621, Audio Production I, 3 cr
   MUSC 1622, Audio Production II, 3 cr
   MUSC 1421, Class Voice, 2 cr
   OR
   MUSC 1450, Applied Music-Vocal, 1 cr

TOTAL …………………….. **24-25 Credits**

PURPOSE: The purpose of this certificate is to give both the aspiring and professional music technology artist the core experience in contemporary music technology applications and core musicianship. This certificate will lend further development for the practicing music technologist as an update for new applications in the music technology arts field with respect to contemporary audio recording, MIDI application, music composition, and music business fields.

This certificate is also a great access point to begin the Associate of Science (Two-Year) Digital Arts Degree.

Revised: 02/17/2009

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MUSIC EDUCATION: VOCAL/GENERAL K-12
Associate in Fine Arts

I. **Minnesota Transfer Curriculum General Education Requirements**.......................30 Credits

    Goal 1: Written and Oral Communication ……………………………….……..7 cr
COMM 1114, Fundamentals of Public Speaking, 3 cr
ENGL 1117, Reading & Writing Critically I, 4 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences ………………………………………….……..3 cr
Three credits from MnTC Goal 3

    Goal 4: Mathematics/Logical Reasoning..………………………….………3 cr
MATH 1111, Contemporary Concepts, 3 cr
OR higher level mathematics course that meets MnTC Goal 4

    Goal 5: History and the Social and Behavioral Sciences………………..…...3 cr
Credits from MnTC Goal 5

    Goal 6: The Humanities—the Arts, Literature and Philosophy …………….14 cr
MUSC 1101, Music Appreciation, 3 cr
MUSC 1301, Concert Choir, 1 cr (repeat 4 semesters), 4 cr
MUSC 1501, Musicianship I, 4 cr
MUSC 1601, Electronic Music Composition I, 3 cr
(Upon successful completion of MUSC 1001 or consent of instructor)

II. **Professionally-Related Course Requirements**………………………………...………30 Credits

    Advanced Music Theory……………………………………….…...……12 cr
MUSC 1502, Musicianship II, 4 cr
MUSC 2501, Musicianship III, 4 cr
MUSC 2502, Musicianship IV, 4 cr

    Music History……………………………………………...……6 cr
MUSC 1201, History and Survey of Musical Literature I, 3 cr
MUSC 1202, History and Survey of Musical Literature II, 3 cr

    Small Ensemble …………………………………………...…..…2 cr
MUSC 1321, CC Aires Ensemble, 1 cr
MUSC 1331, Vocal Ensemble, 1 cr

    Piano Skills…………………………………………………...………3 cr
MUSC 1401 or 1402 (by consent of instructor), Class Piano, 2 cr
MUSC 1460, Applied Instrument, (piano), 1 cr

Class Voice……………………………………………………………4 cr
MUSC 1421, Beginning Class Voice, 2 cr
 MUSC 1422, Intermediate Class Voice, 2 cr

Private Voice Study…………………………………..……………..3 cr
MUSC 1450, Applied Voice, 1 cr

TOTAL……………………………………………………...…………..60 Credits

Revised: 03/01/2012

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

NATURAL SCIENCE
Associate in Science

This two-year degree includes basic science curriculum required for admission by medical schools. Check with the medical school(s) of your choice to ensure that their specific requirements are fulfilled.

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…………...31 Credits**
    Goal 1: Written and Oral Communication ………………………….……....7 cr
    ENGL 1117, Reading & Writing Critically I, 4 cr
    COMM 1114, Fundamentals of Public Speaking, 3 cr

    Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

    Goal 3: Natural Sciences ..…………………………………...…………………..8 cr
    BIOL 1220, Concepts of Biology, 4 cr
    CHEM 1127, Chemical Principles I, 4 cr

    Goal 4: Mathematics/Logical Reasoning……………………….……….……10 cr
    MATH 1127, Calculus I, 5 cr
    MATH 1128, Calculus II, 5 cr

    GOAL 5: History and the Social and Behavioral Sciences………...…………..3 cr
    ANTH 1612, Cultural Anthropology, 3 cr

    GOAL 6: Humanities – the Arts, Literature and Philosophy…………..……..3 cr
    PHIL 1125, Ethics, 3 cr

II. **Professional Core Requirements……………..……….………………..………..29 Credits**
    PHYS 1127, Introductory Physics I, 5 cr
    PHYS 1128, Introductory Physics II, 5 cr
    CHEM 1128, Chemical Principles II, 4 cr
    CHEM 2127, Organic Chemistry I, 4 cr
    CHEM 2128, Organic Chemistry II, 4 cr
    NUTR 1211, Principles of Nutrition, 3 cr
    MATH 2208, Fundamentals of Statistics, 4 cr

TOTAL ………….…………………….....……………………………….…….……..60 Credits

Revised: 03/01/2012

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

NURSING (A.D.)
Associate in Science

I.   Minnesota Transfer Curriculum (MnTC) General Education Requirements................30 Credits
Goal 1: Written and Oral Communication ....4 cr
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 3: Natural Sciences ....16 cr
BIOL 1217, Anatomy and Physiology, 4 cr
BIOL 1218, Anatomy and Physiology II, 4 cr
BIOL 2021, General Microbiology, 4 cr
CHEM 1117, General, Organic and Biological Chemistry, 4 cr

Goal 5: History and the Social and Behavioral Sciences................................ 7 cr
PSYC 2618, General Psychology, 4 cr
SOC 1614, Introduction to Sociology, 3 cr

Goal 6: Humanities – the Arts, Literature, and Philosophy .... 3 cr
Recommended: PHIL 1135, Bioethics, 3 cr
OR PHIL 1125, Ethics, 3 cr

II. Program Requirements ....34 Credits
NURS 1117, Fundamentals of Nursing, 6 cr
NURS 1118, Adult Nursing I, 6 cr
NURS 2217, Adult Nursing II, 5 cr
NURS 2207, Maternal Newborn Nursing, 3 cr
NURS 2208, Mental Health Nursing, 3 cr
NURS 2209, Pediatric Nursing, 3 cr
NURS 2218, Advanced Concepts in Nursing, 3 cr
NURS 2219, Leadership and Management in Nursing, 4 cr
NURS 2220, Professional Practice Issues, 1 cr

TOTAL..64 Credits

RCTC class hours are 50 minutes in length, 1 credit is a minimum of 16 hours of classroom contact. The College has an expectation that students spend two hours of preparatory work for every one hour in the classroom. Nursing clinical assignments are calculated on a ratio of 1:3. Three hours are spent in clinical work for every one credit. Science course labs are assigned two hours for one credit.

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15.   Students in the program will also be required to complete a National Criminal background Study. Information about completing the background study will be available from program faculty.

Purpose: The associate degree nurse is prepared to practice nursing in situations involving direct patient care, most frequently in the hospital or long-term care facility. Graduates are prepared to function as defined in Minnesota statutes by (a) providing a nursing assessment of the community; (b) providing nursing care supportive to or restorative of life functions such as skilled ministration of nursing care, supervising and teaching nursing personnel, health teaching and counseling, case finding and referral to other health resources; and (c) evaluating these actions. After successful completion of this program, which includes classes at RCTC and care of patients in the Mayo Foundation Hospitals in addition to area nursing homes and selected community agencies, **graduates are eligible to apply to take the National Council Licensure Examination -Registered Nurse (NCLEX-RN).**

The program is approved by the Minnesota Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 (www.nlnac.org).

Prerequisites:
• High school diploma or GED
• Nursing Assistant Course (NA 1500 or equivalent)
• Cumulative GPA 2.5. (Based on grades within 10 years of the semester for which you have applied)
• Grade of C or better (in high school ** or at college level) in the following courses:

Biology with a lab component within the last 5 years
Chemistry with a lab component within the last 5 years
Elementary Algebra (Math 0098 or equivalent)
**High School biology & chemistry must be full year courses **

Application to the Nursing Program: view website: www.rctc.edu/program/nurs/
• Seek academic advisement.
• Apply to and meet college admission requirements. Once accepted into the college, you must complete a nursing program application (Available Online). **ALL prerequisites must be completed prior to submission of a Nursing Program application, i.e. enrollment in a science course at the time of application does not fulfill prerequisite requirements.**
• Applicants must submit official high school and ALL college transcripts for evaluation.
• Applications must be received by 4pm September 15th for Spring semester admission and February 1st for Fall semester. Should there be more qualified applicants than are spaces available, students will be admitted according to their admission ranking, based on the points earned. Applicants must be in good standing with RCTC to be considered.

(See Website for complete details-select "Admission Requirements" scroll down to Admission Point Structure)

For information, contact the Welcome Center at 507-285-7557 or e-mail getinfo@rctc.roch.edu.
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Admission: Admitted students are required:
- To pay (by the designated deadline) a $300 deposit to hold a place in the Nursing Program.
  (The deposit is applied toward the first semester tuition and is refundable if application is withdrawn in writing up to 30 days before the semester begins).
- To attend a mandatory Nursing Orientation prior to registration. Nursing acceptance letter will identify the sessions and times available.
- To purchase Nursing Liability insurance as an attached fee each semester.
- To submit completed health forms; physical exam, immunizations, hepatitis, annual mantoux and health insurance documentation. Forms available online: www.rctc.edu/services/health/health-forms.html
- To obtain and remain current with CPR for Health Professionals prior to the start of the semester.
- To be in good standing with RCTC Nursing clinical partners.

Nursing (A.D.) Course Sequence

The Nursing Program is a four-semester course sequence, which begins both Fall and Spring Semester. Biology, Chemistry, English, Psychology, Sociology, and Philosophy (Humanities) courses may be taken prior to admission into the Nursing Program. Grade of C or better is required of all general education and nursing course requirements. All general education requirements may be taken through the Post-Secondary Enrollment Option Program (PSEOP).

Semester I	Semester II
NURS 1117, 6 cr	NURS 1118, 6 cr
BIOL 1217, 4 cr	BIOL 1218, 4 cr
CHEM 1117, 4 cr	BIOL 2021, 4 cr
ENGL 1117, 4 cr	PSYC 2618, 4 cr
TOTAL 18 cr	**TOTAL 18 cr**

Semester III	Semester IV
NURS 2207 (8 wks), 3 cr	NURS 2209 (8 wks), 3 cr
NURS 2208 (8 wks), 3 cr	NURS 2218(8 wks), 3 cr
NURS 2217, 5 cr	NURS 2219 (8 wks), 4 cr
SOC 1614, 3 cr	NURS 2220 (8 wks), 1 cr
	PHIL 1125/1135, 3 cr
TOTAL 14 cr	**TOTAL 14 cr**

ADVANCED PLACEMENT AVAILABLE FOR LPNs:

An advanced placement track is available for LPNs with a current license who have graduated from a state approved school of practical nursing. LPNs meeting the admission criteria will receive 6 credits for NURS1117 and will be placed into NURS 1118. They must complete the required general education identified in Semester I. The program can be completed in 3 semesters.

A separate application is required and may be obtained on the Nursing Website under the LPN to ADN tab.

Revised: 03/07/2012

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OCCUPATIONAL SKILLS
Certificate

I. Professional Core Requirements… .... ……..**15 Credits**
    OSP 1000, Introduction to the Occupational Skills Program, 3 cr
    OSP 1010, Work Readiness Assessment, 1 cr
    OSP 1015, Applied Communication Skills, 3 cr
    OSP 1025, Personal Development, 3 cr
    OSP 1045, Applied Job Search, 2 cr
    OSP 1050, Transition to Independent Living, 3 cr

II. Electives…………………………………………………………………………………………**4 Credits**
    OSP 1030, Supervised Occupational Training, 4 cr
    OR
    OSP 1005, Daily Living Skills, 3 cr
    AND
    OSP 1040, Community and Leisure, 1 cr

TOTAL…………… ....**19 Credits**

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in licensed institutions. A list of disqualifying offenses is available at
https://www.revisor.mn.gov/statutes/?id=245C.15.

SEMESTER 1 **Core Requirements**	**SEMESTER 2** **Core Requirements**
OSP 1000, 3 cr	OSP 1025, 3 cr
OSP 1010, 1 cr	OSP 1045, 2 cr
OSP 1015, 3 cr	OSP 1050, 3 cr
TOTAL 7 cr	TOTAL 8 cr

SEMESTER 1 **Electives**	**SEMESTER 2** **Electives**
OSP 1005, 3 cr	All elective courses taken in Semester 1
OSP 1040, 1 cr	
OR	
OSP 1030, 4 cr	
TOTAL 4 cr	

Purpose: The Occupational Skills Program provides individuals with mild to moderate disabilities with the vocational training necessary to obtain and maintain competitive entry level employment. The target population is individuals outside of a sheltered work environment who are unable to succeed in traditional college coursework. The certificate option is for students who wish to gain skills to obtain and maintain competitive entry level employment. Graduates may seek further education to earn a diploma degree in the Occupational Skills Program or take additional courses to improve their entry level job skills.

NOTE: Certificate Option to be completed in one academic year.

Pre-Admission Criteria:
(1) Diploma from high school/GED.
(2) Documented disability in the following area(s):
    a. Developmental disability/learning disability
    b. Mental health
    c. Chemical dependency
    d. Physical impairment

Admission Process:
(1) Contact RCTC disability services and complete required documentation.
(2) Complete OSP application materials.
(3) Interview with OSP faculty.
(4) Registration and Orientation

Revised: 02/24/2010

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OCCUPATIONAL SKILLS
Diploma

I. **Professional Program-Related Requirements**..30 Credits
    OSP 1000, Introduction to the Occupational Skills Program, 3 cr
    OSP 1005, Daily Living Skills, 3 cr
    OSP 1010, Work Readiness Assessment, 1 cr
    OSP 1015, Applied Communication Skills, 3 cr
    OSP 1025, Personal Development, 3 cr
    OSP 1030, Supervised Occupational Training, 4 cr
    OSP 1040, Community and Leisure Resources, 1 cr
    OSP 1045, Applied Job Search, 2 cr
    OSP 1050, Transition to Independent Living, 3 cr
    OSP 1055, Internship, 7 cr

II. **Elective**………………………………………………………………………….......1 Credit

TOTAL ....31 Credits

Notice of Minnesota Background Check Requirement
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https://www.revisor.mn.gov/statutes/?id=245C.15.

Purpose: The Occupational Skills Program provides individuals with mild to moderate disabilities with the vocational training necessary to obtain and maintain competitive entry level employment. The target population is individuals outside of a sheltered work environment who are unable to succeed in traditional college coursework. This program is focused on students whose desire is to obtain and maintain competitive employment. The diploma program is designed to be completed on a full-time basis as students will develop skills as a cohort group. Students will develop an individual program of study, which encompasses their skill set, interest and ability in a specific vocational area. The courses are designed to be taught consecutively to build on skill sets. Upon successful completion of the program, students will be prepared for jobs in numerous entry level professions including food preparation and serving related, personal care aides and service, building, grounds and cleaning and maintenance, childcare, restaurant cooks, sales and related workers.

Pre-Admission Criteria:
(1) Diploma from high school/GED.
(2) Documented disability in the following area(s):
    a. Developmental disability/learning disability
    b. Mental health
    c. Chemical dependency
    d. Physical impairment

Admission Process:
(1) Contact RCTC disability services and complete required documentation.
(2) Complete OSP application materials.
(3) Interview with OSP faculty.
(4) Registration and Orientation

OCCUPATIONAL SKILLS PROGRAM
RECOMMENDED COURSE SEQUENCING:

FALL		SPRING	
Semester I		Semester II	
OSP 1000	3 cr	OSP 1025	3 cr
OSP 1005	3 cr	OSP 1045	2 cr
OSP 1010	1 cr	OSP 1050	3 cr
OSP 1015	3 cr	OSP 1055	7 cr
OSP 1030	4 cr	Elective	1 cr
OSP 1040	1 cr	**TOTAL**	**16 cr**
TOTAL	**15 cr**	**TOTAL**	**31 cr**

Revised: 11/01/2012
Implementation: Spring 2012

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

PERSONAL TRAINER
Certificate

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…………..4 Credits**
   Goal 3: Natural Sciences
   Choose from one of the following:
   BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
   BIOL 1110, Human Biology, 4 cr
   BIOL 1127, Principles of Anatomy I, 4 cr
   BIOL 1217, Anatomy & Physiology I, 4 cr

II. **Professional Core Requirements …………………………………………………...…….10 Credits**
   HLTH 1110, CPR/AED, 1 cr
   HLTH 1108, Weight Management, 3 cr
   PHED 2241, Essentials of Personal Training, 3 cr
   PHED 2293, Personal Trainer/Group Fitness Instructor Field Experience, 3 cr

III. **Electives (Select any combination of courses for a minimum of)………….………...6 Credits**
   PHED 1105, Lifetime Fitness, 3 cr
   PHED 2242, Essentials of Strength & Conditioning, 3 cr
   PHED 2240, Methods of Group Fitness, 3 cr
   PHED 2249, Prevention and Care of Athletic Injuries, 3 cr
   PHED 2253, Sport Nutrition For Performance, 3 cr
   PHED 2245, GF/PT Certification Exam Prep, 2 cr
   PHED 2252, Sport Psychology, 3 cr
   PHED 1122, Circuit Training, 1 cr
   PHED 1133, Strength Training for Men & Women, 1 cr
   PHED 1112, Jogging & Walking, 1 cr
   PHED 1189, Boot Camp, 1 cr

TOTAL………………………………………………………………………………………..20 Credits

Revised: 03/13/2013
Implementation: Fall 2013

PERSONAL TRAINER
Diploma

I.   **Minnesota Transfer Curriculum (MnTC) General Education Requirements…..………4 Credits**
     Goal 3: Natural Sciences
     Choose from one of the following:
     BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
     BIOL 1110, Human Biology, 4 cr
     BIOL 1127, Principles of Anatomy I, 4 cr
     BIOL 1217, Anatomy & Physiology I, 4 cr

II. **Professional Core Requirements …………………………..……..………………22 Credits**
     HLTH 1110, CPR/AED, 1 cr
     PHED 1105, Lifetime Fitness, 3 cr
     PHED 2253, Sport Nutrition for Performance, 3 cr
     PHED 2252, Sport Psychology, 3 cr
     PHED 2242, Essentials of Strength & Conditioning, 3 cr
     PHED 2241, Essentials of Personal Training, 3 cr
     PHED 2249, Prevention and Care of Athletic Injuries, 3 cr
     PHED 2293, Personal Trainer/Group Fitness Instructor Field Experience, 3 cr

III. **Electives (Select any combination of courses for a minimum of)………………….....5 Credits**
     PHED 2240, Methods of Group Fitness, 3 cr
     REC 2210, Recreation Program Leader, 3 cr
     PHED 1122, Circuit Training, 1 cr
     PHED 1133, Strength Training for Men & Women, 1 cr
     PHED 1112, Jogging & Walking, 1 cr
     PHED 1189, Boot Camp, 1 cr
     PHED 2245, GF/PT Certification Exam Prep, 2 cr

TOTAL …………………………………………………………………………………..31 Credits

Revised: 03/13/2013

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

ART + DESIGN:
PHOTOGRAPHY
Certificate

I. **Professional Core Requirements** ....**26 Credits**
ART 1121, Basic Design, 3 cr
ART 1184, Introduction to Digital Photography, 3 cr
ART 2284, Photographic Darkroom Fundamentals, 3 cr
ART 2280, Intermediate Digital Photography, 3 cr
ART 2286, Photo Lighting Techniques, 3 cr
ART 2281, Art Portfolio, 2 cr
ART 2292, Directed Studio, 3 cr

Art History Requirement (Student must choose 1 of the following courses):
ART 1110, Art Appreciation, 3 cr
ART 1111, Art History Survey I, 3 cr
ART 1112, Art History Survey II, 3 cr

Elective (Student must choose 1 of the following courses):
BUS 2144, Introduction to E-Business, 3 cr
BUS 2201, Principles of Marketing, 3 cr
BUS 2240, Project Management, 3 cr
COMM 1114, Fundamentals of Public Speaking, 3 cr

TOTAL...**26 Credits**

PURPOSE: The Photography Certificate is a two-year sequence of Art courses that emphasizes artistic expression and builds technical, visual, interpretive and analytical skills and knowledge in Art with an emphasis in photography. This certificate acknowledges successful completion of courses that cover both basic and creative aspects of camera, black and white and color darkroom, alternative photographic processes, lighting, digital imaging, presentation and portfolio development. To complete a certificate, a portfolio of photographic work and a supporting paper will further validate quality and interpretive skills.

Revised: 01/12/2012

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PRECISION MANUFACTURING TECHNOLOGY
Diploma

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements ....6 Credits**
   A. **Minnesota Transfer Curriculum** .... **3 cr**
      ENGL 1109, Introduction to Technical Communication, 3 cr

   B. **Other General Education3 cr**
      MATH 1015, Applied Technical Math, 3 cr

II. **Professional Program Requirements ....35 Credits**
   CAD 1230, CAD Data Management, 1 cr
   CAD 1050, Introduction to SolidWorks for Manufacturing, 3 cr
   CAD 1150, CAD Data Communications, 2 cr
   CAD 2000, Introduction to SolidCam, 3 cr
   CAD 2400, Reverse Engineering and Rapid Prototyping, 2 cr
   PMT 1105, Manual Mill Theory, 1 cr
   PMT 1155, Manual Lathe Theory, 1 cr
   PMT 1205, Basics of CNC Turning, 1 cr
   PMT 1255, Basics of CNC Machining, 1 cr
   PMT 1300, Open Manufacturing Lab I, 8 cr
   PMT 1705, CNC Coordinates, 1 cr
   PMT 1755, CNC Manual Operations, 1 cr
   PMT 1805, CNC Offsets, 1 cr
   PMT 1855, Introduction to GD & T, 1 cr
   PMT 1900, Open Manufacturing Lab II, 8 cr

TOTAL...41 Credits

PURPOSE: The Precision Manufacturing Technology major trains an individual for hands on precision model creation. Students will be able to generate 3D models using SolidWorks and program the parts for manufacturing using SolidCAM.

Implemented: Fall 2010

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PRACTICAL NURSING
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements............... 12 Credits
   BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
   ENGL 1117*, Reading & Writing Critically I, 4 cr
   PSYC 2618, General Psychology, 4 cr

II. Practical Nursing Course Requirements ....27 Credits
   PNM 1200, Pharmacology for Practical Nursing, 3 cr
   PNM 1210, Success in Nursing, 1 cr
   PNM 1220, Nursing Skills & Concepts, 4 cr
   PNM 1240, Care of the Older Adult, 3 cr
   PNM 1320, Family and Mental Health Concepts, 6 cr
   PNM 1340, Adult Nursing, 6 cr
   PNM 1440, Integrated Clinical Application, 4 cr

TOTAL .... 39 Credits

RCTC class hours are 50 minutes in length; 1 credit is a minimum of 16 hours of classroom contact. The College has an expectation that students spend two hours of preparatory work for every one hour in the classroom. Nursing clinical assignments are calculated on a ratio of 1:3; 48 hours are spent in clinical work for every one credit.

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15.   Students in the program will also be required to complete a National Criminal background Study. Information about completing the background study will be available from program faculty.

Purpose: The Practical Nursing major is designed to provide students with the knowledge and skills necessary to provide direct nursing care to patients in hospitals, nursing homes, clinics and home and community based settings. This educational program includes classroom theory, laboratory experience and supervised clinical experience in area hospitals, nursing homes, clinics and community health care agencies. During the last semester of the program, the clinical rotation includes integrated clinical experience where students participate in eight-hour shifts to assist them in making the transition from student role to the role of the graduate practical nurse.   A graduate of this program is eligible to apply to take the National Council for Licensing Exam - Practical Nursing (NCLEX-PN). The program is approved by the Minnesota Board of Nursing and is accredited by the National League for Nursing Accrediting Commission (NLNAC), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 (www.nlnac.org).

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PRACTICAL NURSING COURSE SEQUENCE: General education courses are offered as needed. Grade of "C" or better is required of all general education _and_ Practical Nursing (PNM) courses. English, Biology, and Psychology courses may be completed prior to admission to Practical Nursing.

FALL Semester I		SPRING Semester II		SUMMER Semester III	
PNM 1210	1cr (1st 8 wks)	PNM 1320	6 cr	PNM 1440	4 cr
PNM 1220	4 cr (1st 8 wks)	PNM 1340	6 cr		
PNM 1240	3 cr (2nd 8 wks)	PSYC 2618	4 cr		
PNM 1200	3 cr				
ENGL 1117	4 cr				
BIOL 1107*	4 cr				
TOTAL	**19 cr**	**TOTAL**	**16 cr**	**TOTAL**	**4 cr**

* ENGL 1117 and BIOL 1107 must be completed _prior_ to Semester II courses.
* PSYC 2618 must be completed _prior_ to Semester III.

Pre-requisites:
1. High school diploma or GED.
2. Minimum GPA of 2.0
3. Elementary Algebra (MATH 0098) with a "C" or better or equivalent. (**)
    ** Please call the Welcome Center at (507) 285-7557 for further information on academic assessments.
4. Successful completion of a Nursing Assistant course (NA 1500) or equivalent.
5. Health 1110 or equivalent CPR course for the health care professional (1 and 2 person and infant and child).

Application to the Practical Nursing Program:
- Meet college admission requirements.
- Complete RCTC Practical Nursing application form at http//www.rctc.edu/program/pnm/html/admission requirements.html
- Submit official transcripts from high school and college (if any) for evaluation.
- Seek academic advisement to ensure that all pre-requisites are completed.
- **Applications received by _June 15th_ _with completed prerequisites on file_ will be given first consideration.**

Admission: Admitted students are required to:
- Purchase Nursing Liability insurance as an attached fee with each course with a clinical lab component
- Submit at orientation completed health forms including:
    a. physical exam
    b. immunizations, including influenza vaccine
    c. hepatitis
    d. annual Mantoux test
    e. documentation of health insurance
- Complete the State of Minnesota Background Study Form and the National Background study by date given at orientation.

Revised: 07/31/2012

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PROTECTIVE AGENT
Certificate

I.   **Professional Program-Related Requirements…………………………….…..…..16 Credits**
       CRJU 1205, Introduction to Private Security, 3 cr
       CRJU 1210, Defensive Tactics for Protective Agents, 2 cr
       CRJU 1215, Homeland Security/Defense, 3 cr
       EMC 1121, EMS: First Responder, 3 cr
       LAWE 1115, Basic Firearms for Law Enforcement, 2 cr
       LAWE 2117, Minnesota Statutes, 3 cr

TOTAL………………………………….…………………………………………....…………16 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at
https://www.revisor.mn.gov/statutes/?id=245C.15.   Information about completing the background study will be available from program faculty.

PURPOSE: The Protective Agent Certificate is designed for Criminal Justice and Law Enforcement students and working professionals who have an interest in the field of private security. This certificate provides students with a comprehensive overview of private security and its role in securing the country's critical infrastructure as well as training for armed agents. This certificate meets educational requirements as set forth by the state of Minnesota for Protective Agents.

Implementation: Fall 2012

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ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

SOFTWARE APPLICATION SPECIALIST
Certificate

I. **RCTC General Education: Allied Studies Requirements… ……………………………….. 5 Credits**
Area 12: Computer/Information Literacy
BTEC 1320, Word Processing I, 3 cr
BTEC 1510, Internet Applications, 2 cr

II. **Professionally-Related Program Requirements………………………………………………. .11 Credits**
BTEC 1150, Introduction to Desktop Publishing, 2 cr
BTEC 2330, Word Processing II, 3 cr
BTEC 2350, Microcomputer Business Applications, 3 cr
BTEC 2450, PowerPoint, 1 cr
BTEC 2460, Computer Voice Recognition, 1 cr
BTEC 2600, Microsoft Outlook, 1 cr

TOTAL … .... 16 Credits

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

Revised: 03/13/2013

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SPORT MANAGEMENT
Associate in Applied Science

I. **Minnesota Transfer Curriculum General Education Requirements………………..…19 Credits**
   Goal 1: Written and Oral Communication ………………..…….minimum of 7 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr **OR** COMM 1130 Interpersonal Communication, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS
   Goal 3: Natural Sciences ……………..…………...……………..minimum of 3 cr
   Goal 4: Mathematics/Logical Reasoning ….……….……………minimum of 3 cr
   Goal 5: History and Social and Behavioral Sciences …………...minimum of 3 cr
   Goal 6: The Humanities – The Arts, Literature & Philosophy …minimum of 3 cr

II. **Professional Core Requirements…………………………………………….……..23 Credits**
   BUS 1101, Introduction to Business, 3 cr
   BUS 2210, Legal Environment of Business, 3 cr
   BUS 2232, Principles of Management, 3 cr
   COMP 1112, Introduction to Computers, 3 cr
   HLTH 1114, Responding to Emergencies, 3 cr
   PHED 2270, Introduction to Physical Education, 2 cr
   PHED 2280, Introduction to Sport Facility Mgmt, 3 cr
   REC 2210, Recreation Program Leader, 3 cr

III. **Area of Study: Choose either "A" or "B":**
   A. Sport/Athletic Facilities Management……………………………...………………9 Credits
      HORT 1318, Introduction to Turf, 3 cr
      PHED 2281, Development/Mgmt of Sport/Rec Facilities, 3 cr
      PHED 2296, Sport Administration Internship II, 3 cr

   B. Golf Course Management……………………..……………………….……..…10 Credits
      GFMT 1110, Foundations of Golf Course Mgmt, 3 cr
      HORT 1318, Introduction to Turf, 3 cr
      PHED 1131, Golf, 1 cr
      OR
      PHED 1236/2236, Golf Team, 1 cr
      PHED 2296, Sport Administration Internship II, 3 cr

IV. **Electives…………………………………………………………………………8-9 Credits**
   Choose minimum of 6 credits:
   HTLS 1322 Turf & Grounds Management, 4 cr
   PHED 1105 Lifetime Fitness, 3 cr
   PHED 2240 Methods of Group Fitness, 3 cr
   PHED 2241 Essentials of Personal Training, 3 cr
   PHED 2242 Essentials of Strength and Conditioning, 3 cr
   PHED 2245 GF/PT Certification Exam Prep, 2 cr
   PHED 2249 Introduction to Athletic Training, 3 cr

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Choose minimum of 2 credits:
Any PHED 1100 1 credit activity level classes, 1cr/ea

TOTAL……………………………………………………...…………………..………… **60 Credits**

Revised: 03/13/2013

SPORT MANAGEMENT
Diploma

I.   **Minnesota Transfer Curriculum (MnTC) General Education Requirements………….6 Credits**
     Goal 1: Written and Oral Communication………………………minimum of 3 cr
     ENGL 1117, Reading and Writing Critically I, 4 cr **OR**
     COMM 1114, Fundamentals of Public Speaking, 3 cr **OR**
     COMM 1130, Interpersonal Communication, 3 cr

     Goal 2-10………………………………………….……..…minimum of 3 cr
     Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS
     Goal 3: Natural Sciences …………………………..…….……….minimum of 3 cr
     Goal 4: Mathematics/Logical Reasoning ….………………….minimum of 3 cr
     Goal 5: History and Social and Behavioral Sciences …………...minimum of 3 cr
     Goal 6: The Humanities – The Arts, Literature & Philosophy ….minimum of 3 cr

II. **Professional Core Requirements………..…………………..……..……………..……..15 Credits**
     BUS 1101, Introduction to Business, 3 cr
     BUS 2210, Legal Environment of Business, 3 cr
     HLTH 1114, Responding to Emergencies, 3 cr
     PHED 2280, Introduction to Sport Facility Mgmt, 3 cr
     REC 2210, Recreation Program Leader, 3 cr

III. **Area of Study: Choose either "A" or "B":**
     A. Sport/Athletic Facilities Management…....……………………………………….9 Credits
     HORT 1318, Introduction to Turf, 3 cr
     PHED 2281, Development/Mgmt of Sport/Rec Facilities, 3 cr
     PHED 2296, Sport Administration Internship II, 3 cr

     B.   Golf Course Management………………………………..…………………....…9 Credits
     HORT 1318, Introduction to Turf, 2 cr
     GFMT 1110, Foundations of Golf Course Mgmt, 3 cr
     PHED 2296, Sport Administration Internship II, 3 cr

IV. **Electives……………..…..……………………………………………………………3 Credits**
     HTLS 1322, Turf & Grounds Management, 4 cr
     PHED 1105, Lifetime Fitness, 3 cr
     PHED 1189, Boot Camp, 1 cr
     PHED 2240, Methods of Group Fitness, 3 cr
     PHED 2241, Essentials of Personal Training, 3 cr
     PHED 2242, Essentials of Strength and Conditioning, 3 cr
     PHED 2245, GF/PT Certification Exam Prep, 2 cr
     PHED 2249, Introduction to Athletic Training, 3 cr

TOTAL……………………………………………………...……………………… 33 Credits

Revised: 03/13/2013

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

SURGICAL TECHNOLOGY
Associate in Applied Science

Accreditation: The program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, Florida 33756 (Phone: 727-210-2350) in cooperation with the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 210, Littleton, Colorado 80120 (Phone: 303-694-9262).

I. Minnesota Transfer Curriculum Courses .... 18 Credits
  Goal 1: Written and Oral Communication…………………………………….4 cr
  ENGL 1117, Reading & Writing Critically, 4 cr

  Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

  Goal 3:   Natural Sciences .... ……..11 cr
  BIOL 1217, Anatomy and Physiology I, 4 cr
  BIOL 1218, Anatomy and Physiology II, 4 cr
  CHEM 1101, Elements of Chemistry, 3 cr

  Goal 5:   History and the Social and Behavioral Sciences ....3-4 cr
  PSYC 1611, Psychology of Adjustment, 3 cr

II. Professional Program-Related Requirements .... 42 Credits
  BTEC 1600, Introduction to Medical Terminology, 2 cr
  BTEC 2870, Employment Strategies, 1 cr
  NA 1610, Nursing Assistant for Surgical Technology, 5 cr
  ST 2110, Surgical Technology Medications & Microbiology, 3 cr
  ST 2120, Operating Room Techniques I, 5 cr
  ST 2121, Operating Room Techniques II, 5 cr
  ST 2122, Introduction to the Operating Room, 3 cr
  ST 2123, Surgical Procedures I, 9 cr
  ST 2124, Surgical Procedures II, 9 cr

  TOTAL ....60 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background study will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

Revised: 03/01/2012

VETERINARY TECHNOLOGY
Veterinary Technician
Associate in Applied Science

I. **Minnesota Transfer Curriculum (MnTC) General Education Requirements…………..…18 Credits**

Goal 1: Written and Oral Communication ……..…….…….….………..….…..…..3 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
COMM 1114, Fundamentals of Speech, 3 cr **OR**
Three credits from courses that meet competencies of MnTC Goal 1

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences …………….…..….…………………………………..7 cr
BIOL 1220, Concepts of Biology, 4 cr
CHEM 1101, Elements of Chemistry, 3 cr

Goal 5: History and the Social and Behavioral Sciences …..…………………..…..3 cr
PSYC 1611, Psychology of Adjustment, 3 cr **OR**
Credits from MnTC Goal 5

Goal 6: The Humanities - the Arts, Literature, and Philosophy……………….3 cr
PHIL 1125, Ethics, 3 cr **OR**
Credits from MnTC Goal 6

Electives ……………………………………………………………………2 cr
Two credits from courses that meet competencies of MnTC Goals 1–10 **OR**
Allied Studies Courses.

Required general education courses must be completed with a grade of C or better.

II. **Core Requirements……………………………..……………………..........………54 Credits**

MATH 1025, Appl Hlth Science Mathematics, 2 cr	VT 2260, Veterinary Surgical Nursing II, 2 cr
VT 1220, Small Animal Nursing Techniques, 3 cr	VT 2920, Sm Animal Disease & Diagnostics, 2 cr
VT 1510, Veterinary Office Procedures, 3 cr	VT 2820, Clinical Laboratory Techniques I, 3 cr
VT 1410, Vet Surgical Nursing/Anesthesia, 2 cr	VT 2240, Sm Animal Nursing Techniques III, 2 cr
VT 1610, Fund of Diagnostic Imaging, 3 cr	VT 2830, Clinical Laboratory Techniques II, 3 cr
VT 1810, Clinical Laboratory Principles, 2 cr	VT 2250, Large Animal Procedures, 3 cr
VT 1710, Intro to Vet Tech Field Experience, 2 cr	VT 2270, Laboratory Animal Care & Mgmt, 3 cr
VT 2230, Sm Animal Nursing Techniques II, 3 cr	VT 2930, Appl Pharmacology & Nutrition, 2 cr
VT 2910, Pharm and Disease for Vet Techs, 3 cr	VT 2720, Veterinary Technician Field Exp, 4 cr
VT 2020, Comparative Vet Anatomy & Phys, 2 cr	VT 1900, Small Animal Care and Mgmt, 2 cr
VT 2620, Applied Diagnostic Imaging, 1 cr	VT 2900, Kennel Management & Nutrition, 2 cr

TOTAL………………………………………………………..………………………….72 Credits

PREREQUISITES: Successful completion of VT 1010, Veterinary Medical Terms and Anatomy; VT 1110, Introduction to Animal Health Technology; Written and Oral Communications (Goal 1); and CHEM 1101, Elements of Chemistry. All VT and required general education courses must be completed with a grade of C or better in order to continue to the next semester of the program.

PURPOSE: The Veterinary Technology department offers one major option: Veterinary Technician A.A.S Degree. The VT Program is designed for students to complete some prerequisites in Veterinary Technology and after successful completion provide an opportunity to advance into the Veterinary Technician Applied Associate Degree. Courses are arranged in a sequential manner with a field experience component scheduled in the summer semester for the first year and the spring of the second year. All students begin in the VT program in spring semester of the academic year. Courses continue in an arranged sequential manner and are designed to combine theory with practical experience.

The Veterinary Technician curriculum is designed to prepare students for a career as a Veterinary Technician. Students in are taught the skills and procedures to effectively contribute to the health and well being of the animal patient. Veterinary Technicians are qualified to provide a diverse range of medical skills and responsibilities that include: advance nursing care, anesthesia monitoring and induction, clinical laboratory testing and analysis, critical care support, surgery assisting, dental prophylaxis, radiographic imaging and client education.

OCCUPATIONAL OBJECTIVES: Training as a veterinary technician enables the student to work as professional technical support to veterinarians, biomedical researchers, and other scientists as well as positions in the pharmaceutical industries, animal control and humane organizations and local and state health departments. Opportunities for jobs exist in the following areas: Veterinary practice, Veterinary supply sales, Zoo/Wildlife Medicine, Diagnostic Laboratories, Biomedical research, Humane Societies, Military Service, Teaching, Herd Health Managers.

APPLICATION TO THE VETERINARY TECHNICIAN PROGRAM:
1. Meet college admission requirements.
2. Complete RCTC Veterinary Technician application form.
3. Submit official transcripts from high school and college (if any) for evaluation.
4. Seek academic advisement to ensure that all pre-requisites are complete.
5. Application is valid for the current year only.
6. Application deadline is Nov 15. Only offering a Spring start.
7. Thirty-six students will be admitted annually.
8. Should there be more qualified applicants than are spaces available, students will be admitted according to GPA ranking and a score on a program 50 point test given in the middle of fall semester.
9. Must have completed program prerequisites prior to entrance into the program.
10. Admittance will be conditional until fall grades have been finalized.

SEQUENCE OF COURSES: General education courses may be completed prior to enrollment in the Veterinary Technician course sequence The Veterinary Technician courses must be taken in the sequential order.

For information, contact the Welcome Center at 507-285-7557
or e-mail getinfo@rctc.roch.edu.
851 30th Avenue SE | Rochester, MN 55904 | 1.800.247.1296 | TTY Relay 1.800.627.3529 | www.rctc.edu
RCTC is a member of the Minnesota State Colleges and Universities system, a University Center Rochester Partner and an equal opportunity employer/educator.

ROCHESTER COMMUNITY AND TECHNICAL COLLEGE

<u>First semester Veterinary Technician courses will be prerequisites for entrance into the program</u>
VT 1010, Veterinary Medical Terms and Anatomy
 VT 1110, Introduction to Animal Health Technology.

The following credits will be transferred into the VT program from fall semester:
Math1025 Applied Health Sciences Mathematics, 2cr
CHEM 1101, Elements of Chemistry, 3 cr
Written and Oral Communications Elective 3 cr

Minnesota Transfer Curriculum General Education Requirements may be taken any semester
Electives 2 cr
Humanities and the Arts Elective, 3 cr
Hist/Soc/Behavioral Science Elect (Goal 5), 3 cr

Spring Semester (1st year)
VT 1220, Small Animal Nursing Techniques I, 3 cr
BIOL 1220, Concepts of Biology, 4 cr
VT 1510, Veterinary Office Procedures I, 3 cr
VT 2910, Pharm and Disease for Vet Techs, 3 cr
VT 1900, Small Animal Care and Management, 2 cr
VT 2020, Comparative Vet. Anatomy and Phys, 2 cr
MATH 1025, Appl Health Science Mathematics, 2 cr

Summer Semester
VT 1710, Intro to Veterinary Tech Field Exp, 2 cr
VT 1410, Vet Surgical Nursing/Anesthesia, 2 cr
VT 1810, Parasitology, 2 cr
VT 2900, Kennel Management & Nutrition, 2 cr

Fall Semester (2nd Year)
VT 2230, S Sm Animal Nursing Techniques II, 3 cr
VT 2820, Clinical Laboratory Techniques I, 3 cr
VT 1610, Fundamentals of Diagnostic Imaging, 3 cr
VT 2920, Sm Animal Disease & Diagnostics, 2 cr
VT 2260, Veterinary Surgical Nursing II, 2 cr
OR
VT 2250, Large Animal Procedures, 3 cr

Spring Semester (2nd Year)
VT 2270, Lab Animal Care & Management, 3 cr
VT 2830, Clinical Laboratory Techniques II, 3 cr
VT 2930, Appl Pharmacology & Nutrition, 2 cr
VT 2620, Applied Diagnostic Imaging, 1 cr
VT 2240, Sm Animal Nursing Techniques III, 2 cr
VT 2720, Veterinary Tech Field Experience, 4 cr
VT 2260, Veterinary Surgical Nursing II, 2 cr
OR
VT 2250, Large Animal Procedures, 3 cr

Revised: 03/01/2012

Rochester
COMMUNITY AND TECHNICAL
College

**For information, contact the Welcome Center at 507-285-7557
or e-mail getinfo@rctc.roch.edu.**
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WELDING TECHNOLOGY
Certificate

I.   Professional Core Requirements……………...……………………..………..……..**17 Credits**
    BU 1510, Welding Theory and Safety, 1 cr
    WELD 1001, Blueprint Reading, Process Theory and Safety, 3 cr
    WELD 1002, SMAW-Shielded Metal Arc Welding, 3 cr
    WELD 1003, Oxy-fuel Welding, Cutting and Brazing, 1 cr
    WELD 1004, GMAW-Gas Metal Arc Welding (MIG Wire Feed Basic) Welding, 3 cr
    WELD 1005, GTAW-Gas Tungsten Arc Welding (TIG), 3 cr
    WELD 1006, Welding Co-op, 3 cr

Total…………………………………………………………………...……...…………**17 Credits**

PURPOSE: The purpose of the Welding Certificate is to provide a one semester intensive hands on welding program that prepares students for employment in welding and fabrication. Students will develop skills in MIG, TIG and Gas welding as well as blueprint reading, safety and quality with extensive welding lab experience and an internship.

PREREQUISITES: Successful completion of MATH 1015 or Accuplacer test into MATH 0098.

03/13/2013

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or e-mail getinfo@rctc.roch.edu.
851 30th Avenue SE | Rochester, MN 55904 | 1.800.247.1296 | TTY Relay 1.800.627.3529 | www.rctc.edu
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Gainful Employment Information

Rochester Community and Technical College
Gainful Employment Disclosure Report
Accounting Technology/Technician and Bookkeeping -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Accounting Clerk - 30 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $5,609

Books and supplies: $1,400

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Bookkeeping, Accounting, and Auditing Clerks	http://www.onetonline.org/link/summary/43-3031.00
Brokerage Clerks	http://www.onetonline.org/link/summary/43-4011.00
Payroll and Timekeeping Clerks	http://www.onetonline.org/link/summary/43-3051.00
Tax Preparers	http://www.onetonline.org/link/summary/13-2082.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   Updated February 11, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
General Office Occupations and Clerical Services -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

>   Administrative Assistant - Legal - 23 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $4,300

   Books and supplies: $1,073

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

>   No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Cargo and Freight Agents	http://www.onetonline.org/link/summary/43-5011.00
Freight Forwarders	http://www.onetonline.org/link/summary/43-5011.01
Insurance Claims and Policy Processing Clerks	http://www.onetonline.org/link/summary/43-9041.00
Insurance Claims Clerks	http://www.onetonline.org/link/summary/43-9041.01
Insurance Policy Processing Clerks	http://www.onetonline.org/link/summary/43-9041.02
Office Clerks, General	http://www.onetonline.org/link/summary/43-9061.00
Procurement Clerks	http://www.onetonline.org/link/summary/43-3061.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
General Office Occupations and Clerical Services -- Certificate

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Word Processors and Typists   http://www.onetonline.org/link/summary/43-9022.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Administrative Assistant and Secretarial Science, General -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Administrative Assistant - 27 credit Certificate

Administrative Assistant Refresher - 20 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: Ranges from $3,739 to $5,048

Books and supplies: Ranges from $933 to $1,260

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2011
Private & state educational loans:	No data reported -- less than 10 graduates in 2011

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2011

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Executive Secretaries and Executive Administrative Assistants   http://www.onetonline.org/link/summary/43-6011.00

Secretaries and Administrative Assistants, Except Legal, Medical, and Executive   http://www.onetonline.org/link/summary/43-6014.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Administrative Assistant and Secretarial Science, General -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Administrative Assistant - 37 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $6,918

Books and supplies: $1,727

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Executive Secretaries and Executive Administrative Assistants	http://www.onetonline.org/link/summary/43-6011.00
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	http://www.onetonline.org/link/summary/43-6014.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Automobile/Automotive Mechanics Technology/Technician -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

  Automobile Mechanic - 69 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $12,901

  Books and supplies: $3,220

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, 71% of graduates use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans (2012 graduates): $11,558
Private & state educational loans (2012 graduates): $0

If less than 50% of graduates take federal or private loans, the median for that type of loan will be zero.

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 5 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

  47% of 2012 graduates from this program finished in this time.

Q: *What are the chances of getting a job when I graduate?*

A: The job placement rate for students who completed the program in 2011 is 100%.
The related job placement rate for students who completed the program in 2011 is 86%.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Automotive Master Mechanics   http://www.onetonline.org/link/summary/49-3023.01
Automotive Service Technicians and Mechanics   http://www.onetonline.org/link/summary/49-3023.00
Automotive Specialty Technicians   http://www.onetonline.org/link/summary/49-3023.02
Electrical and Electronics Installers and Repairers, Transportation Equipment   http://www.onetonline.org/link/summary/49-2093.00
Electronic Equipment Installers and Repairers, Motor Vehicles   http://www.onetonline.org/link/summary/49-2096.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Business Administration and Management, General -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

       Business Administration - 21 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $3,926

    Books and supplies: $980

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

    No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- too few graduates in 2009.
Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Administrative Services Managers	http://www.onetonline.org/link/summary/11-3011.00
Chief Sustainability Officers	http://www.onetonline.org/link/summary/11-1011.03
Methane/Landfill Gas Collection System Operators	http://www.onetonline.org/link/summary/11-3051.05

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
CAD/CADD Drafting and/or Design Technology/Technician -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

CAD (Computer Aided Drafting) Technology - 68 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $12,714

Books and supplies: $3,173

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 5 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Architectural and Civil Drafters	http://www.onetonline.org/link/summary/17-3011.00
Civil Drafters	http://www.onetonline.org/link/summary/17-3011.02
Drafters, All Other	http://www.onetonline.org/link/summary/17-3019.00
Electrical and Electronics Drafters	http://www.onetonline.org/link/summary/17-3012.00
Electrical Drafters	http://www.onetonline.org/link/summary/17-3012.02
Electronic Drafters	http://www.onetonline.org/link/summary/17-3012.01

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Carpentry/Carpenter -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Carpentry - 32 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $5,983

Books and supplies: $1,493

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, 79% of graduates use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans (2012 graduates): $8,921
Private & state educational loans (2012 graduates): $0

If less than 50% of graduates take federal or private loans, the median for that type of loan will be zero.

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

64% of 2012 graduates from this program finished in this time.

Q: What are the chances of getting a job when I graduate?

A: The job placement rate for students who completed the program in 2011 is 100%.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Carpenters	http://www.onetonline.org/link/summary/47-2031.00
Construction Carpenters	http://www.onetonline.org/link/summary/47-2031.01
First-Line Supervisors of Construction Trades and Extraction Workers	http://www.onetonline.org/link/summary/47-1011.00
Rough Carpenters	http://www.onetonline.org/link/summary/47-2031.02

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Child Care Provider/Assistant -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Child Development - 22 credit Certificate

Youth Work - 17 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: Ranges from $3,178 to $4,113

Books and supplies: Ranges from $793 to $1,027

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, 42% of graduates use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans (2012 graduates): $0
Private & state educational loans (2012 graduates): $0

If less than 50% of graduates take federal or private loans, the median for that type of loan will be zero.

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

8% of 2012 graduates from this program finished in this time.

Q: What are the chances of getting a job when I graduate?

A: The job placement rate for students who completed the program in 2011 is 100%.
The related job placement rate for students who completed the program in 2011 is 100%.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Childcare Workers   http://www.onetonline.org/link/summary/39-9011.00

Nannies   http://www.onetonline.org/link/summary/39-9011.01

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Child Care Provider/Assistant -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Child Development - 32 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $5,983

Books and supplies: $1,493

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, 55% of graduates use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans (2012 graduates): $4,522
Private & state educational loans (2012 graduates): $0

If less than 50% of graduates take federal or private loans, the median for that type of loan will be zero.

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> 27% of 2012 graduates from this program finished in this time.

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Childcare Workers   http://www.onetonline.org/link/summary/39-9011.00

Nannies   http://www.onetonline.org/link/summary/39-9011.01

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Clinical Research Coordinator -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Clinical Research Coordination - 36 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $6,731

Books and supplies: $1,680

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, 45% of graduates use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans (2012 graduates): $0
Private & state educational loans (2012 graduates): $0

If less than 50% of graduates take federal or private loans, the median for that type of loan will be zero.

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

27% of 2012 graduates from this program finished in this time.

Q: *What are the chances of getting a job when I graduate?*

A: The job placement rate for students who completed the program in 2011 is 100%.
The related job placement rate for students who completed the program in 2011 is 100%.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

No direct link to occupational information found on the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org).

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Physical Education Teaching and Coaching -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Coaching - 30 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $5,609

Books and supplies: $1,400

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- no graduates.

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Fitness Trainers and Aerobics Instructors   http://www.onetonline.org/link/summary/39-9031.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   Updated February 11, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Physical Fitness Technician -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

>   Group Fitness Instructor - 30 credit Diploma
>
>   Personal Trainer - 30 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $5,609

   Books and supplies: $1,400

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

>   No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Fitness Trainers and Aerobics Instructors   http://www.onetonline.org/link/summary/39-9031.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Sport and Fitness Administration/Management -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

   Sport Management - 30 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $5,609

   Books and supplies: $1,400

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

   Federal educational loans: No data reported -- no graduates
   Private & state educational loans: No data reported -- no graduates

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

   No data reported -- no graduates.

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Fitness Trainers and Aerobics Instructors   http://www.onetonline.org/link/summary/39-9031.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.
Source: Minnesota State Colleges and Universities: Research, Planning and Policy
R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   Updated February 11, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Medical Insurance Coding Specialist/Coder -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Coding Specialist - 41 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $7,666

Books and supplies: $1,913

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- no graduates.

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Medical Assistants	http://www.onetonline.org/link/summary/31-9092.00
Medical Records and Health Information Technicians	http://www.onetonline.org/link/summary/29-2071.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Community Health Services/Liaison/Counseling -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Community Health Worker - 16 credit Certificate
>
> Enhanced Community Health Worker - 16 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $2,991

Books and supplies: $747

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- no graduates.

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Community Health Workers   http://www.onetonline.org/link/summary/21-1094.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Customer Service Management -- Certificate

PROGRAMS

*Q: **What program(s) are included in the measures below?***

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Customer Service Office Assistant - 16 credit Certificate

COSTS

*Q: **How much will this program cost me?***

A: Tuition and fees: $2,991

 Books and supplies: $747

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

*Q: **What are my financing options to pay for the program?***

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

*Q: **How long will it take me to complete this program?***

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- less than 10 graduates in 2012

*Q: **What are the chances of getting a job when I graduate?***

A: Job placement rate is not reported -- too few graduates in 2009.
Related job placement rate is not reported -- too few graduates in 2009.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

First-Line Supervisors of Office and Administrative Support Workers

http://www.onetonline.org/link/summary/43-1011.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Customer Service Management -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

   Customer Service Administrative Specialist - 33 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $6,170
       Books and supplies: $1,540

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

   Federal educational loans: No data reported -- no graduates
   Private & state educational loans: No data reported -- no graduates

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

   No data reported -- no graduates.

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

First-Line Supervisors of Office and Administrative Support Workers   http://www.onetonline.org/link/summary/43-1011.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Dance, General -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Dance - 23 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $4,300

Books and supplies: $1,073

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Choreographers	http://www.onetonline.org/link/summary/27-2032.00
Dancers	http://www.onetonline.org/link/summary/27-2031.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Dental Assisting/Assistant -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Dental Assistant - 47 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $8,787

Books and supplies: $2,193

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 4 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: The job placement rate for students who completed the program in 2011 is 100%.
The related job placement rate for students who completed the program in 2011 is 100%.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Dental Assistants   http://www.onetonline.org/link/summary/31-9091.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Graphic Design -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Digital Art - 24 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $4,487

Books and supplies: $1,120

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Artists and Related Workers, All Other

http://www.onetonline.org/link/summary/27-1019.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Music Technology -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Digital Arts - Music Technology - 24 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $4,487

Books and supplies: $1,120

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Music Composers and Arrangers	http://www.onetonline.org/link/summary/27-2041.04
Music Directors and Composers	http://www.onetonline.org/link/summary/27-2041.00
Sound Engineering Technicians	http://www.onetonline.org/link/summary/27-4014.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Emergency Care Attendant (EMT Ambulance) -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Emergency Medical Technology - 25 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $4,674

Books and supplies: $1,167

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- no graduates.

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Ambulance Drivers and Attendants, Except Emergency Medical Technicians

http://www.onetonline.org/link/summary/53-3011.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Emergency Medical Technology/Technician (EMT Paramedic) -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Intensive Care Paramedic - 40 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $7,479

Books and supplies: $1,867

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- too few graduates in 2010.
Related job placement rate is not reported -- too few graduates in 2010.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Emergency Medical Technicians and Paramedics   http://www.onetonline.org/link/summary/29-2041.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Equestrian/Equine Studies -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Equine Science Riding/Training - 40 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $7,479

Books and supplies: $1,867

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- no graduates.

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Animal Trainers   http://www.onetonline.org/link/summary/39-2011.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Horse Husbandry/Equine Science and Management -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Equine Science Horse Husbandry - 29 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $5,422

  Books and supplies: $1,353

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2011
Private & state educational loans:	No data reported -- less than 10 graduates in 2011

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- less than 10 graduates in 2011

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Animal Breeders	http://www.onetonline.org/link/summary/45-2021.00
Farm and Ranch Managers	http://www.onetonline.org/link/summary/11-9013.02
Farmers, Ranchers, and Other Agricultural Managers	http://www.onetonline.org/link/summary/11-9013.00
First-Line Supervisors of Agricultural Crop and Horticultural Workers	http://www.onetonline.org/link/summary/45-1011.07
First-Line Supervisors of Animal Husbandry and Animal Care Workers	http://www.onetonline.org/link/summary/45-1011.08
First-Line Supervisors of Farming, Fishing, and Forestry Workers	http://www.onetonline.org/link/summary/45-1011.00
First-Line Supervisors of Logging Workers	http://www.onetonline.org/link/summary/45-1011.05

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Physical Fitness Technician -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Group Fitness Instructor - 20 credit Certificate
>
> Personal Trainer - 20 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $3,739

 Books and supplies: $933

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- no graduates.

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Fitness Trainers and Aerobics Instructors   http://www.onetonline.org/link/summary/39-9031.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Physical Fitness Technician -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Group Fitness Instructor - 30 credit Diploma

Personal Trainer - 30 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $5,609

Books and supplies: $1,400

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Fitness Trainers and Aerobics Instructors   http://www.onetonline.org/link/summary/39-9031.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Health Information/Medical Records Technology/Technician -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

     Healthcare Informatics - 24 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $4,487

    Books and supplies: $1,120

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

     No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- too few graduates in 2010.
Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Medical Records and Health Information Technicians   http://www.onetonline.org/link/summary/29-2071.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Greenhouse Operations and Management -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Horticulture-Floriculture/Garden Center Technology - 54 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $10,096

Books and supplies: $2,520

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 4 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers   http://www.onetonline.org/link/summary/37-1012.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Golf Course Operation and Grounds Management -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Horticulture - Landscape, Golf Course & Grounds - 54 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $10,096

Books and supplies: $2,520

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 4 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers   http://www.onetonline.org/link/summary/37-1012.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Human Services, General -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

    Human Services Technician - 36 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $6,731
     Books and supplies: $1,680

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

    No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- too few graduates in 2009.
Related job placement rate is not reported -- too few graduates in 2009.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Community and Social Service Specialists, All Other   http://www.onetonline.org/link/summary/21-1099.00

Social and Human Service Assistants   http://www.onetonline.org/link/summary/21-1093.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Criminal Justice/Police Science -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Law Enforcement - 28 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $5,235

Books and supplies: $1,307

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Bailiffs	http://www.onetonline.org/link/summary/33-3011.00
Criminal Investigators and Special Agents	http://www.onetonline.org/link/summary/33-3021.03
Detectives and Criminal Investigators	http://www.onetonline.org/link/summary/33-3021.00
Immigration and Customs Inspectors	http://www.onetonline.org/link/summary/33-3021.05
Police and Sheriff's Patrol Officers	http://www.onetonline.org/link/summary/33-3051.00
Police Detectives	http://www.onetonline.org/link/summary/33-3021.01
Police Identification and Records Officers	http://www.onetonline.org/link/summary/33-3021.02
Police Patrol Officers	http://www.onetonline.org/link/summary/33-3051.01

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Criminal Justice/Police Science -- Certificate

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network
(O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and
education level that may be required.

Private Detectives and Investigators

http://www.onetonline.org/link/summary/33-9021.00

Sheriffs and Deputy Sheriffs

http://www.onetonline.org/link/summary/33-3051.03

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Medical Transcription/Transcriptionist -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Medical Transcription - 21 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $3,926

Books and supplies: $980

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Medical Transcriptionists   http://www.onetonline.org/link/summary/31-9094.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Medical Transcription/Transcriptionist -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Medical Transcriptionist - 33 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $6,170
Books and supplies: $1,540

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Medical Transcriptionists   http://www.onetonline.org/link/summary/31-9094.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Digital Communication and Media/Multimedia -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Mobile Application Development - 24 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $4,487

Books and supplies: $1,120

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- no graduates.

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Media and Communication Workers, All Other

http://www.onetonline.org/link/summary/27-3099.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb   Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Digital Arts -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Motion Graphics - 24 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $4,487

Books and supplies: $1,120

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Artists and Related Workers, All Other	http://www.onetonline.org/link/summary/27-1019.00
Photographers	http://www.onetonline.org/link/summary/27-4021.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Nursing Assistant/Aide and Patient Care Assistant/Aide -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Advanced Hospital Nursing Assistant - 16 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $2,991

Books and supplies: $747

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- no graduates.

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Nursing Assistants

http://www.onetonline.org/link/summary/31-1014.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Licensed Practical/Vocational Nurse Training -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Practical Nursing - 39 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $7,292

Books and supplies: $1,820

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, 63% of graduates use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans (2012 graduates): $6,016
Private & state educational loans (2012 graduates): $0

If less than 50% of graduates take federal or private loans, the median for that type of loan will be zero.

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

7% of 2012 graduates from this program finished in this time.

Q: What are the chances of getting a job when I graduate?

A: The job placement rate for students who completed the program in 2011 is 100%.
The related job placement rate for students who completed the program in 2011 is 100%.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Licensed Practical and Licensed Vocational Nurses

http://www.onetonline.org/link/summary/29-2061.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Career Exploration/Awareness Skills -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Occupational Skills - 19 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $3,552

  Books and supplies: $887

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- less than 10 graduates in 2012

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

No direct link to occupational information found on the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org).

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

R:\Gainful Employment Disclosure Data\06_CombinedDisclosureMeasures.accdb Gainful Employment   January 28, 2013

Rochester Community and Technical College
Gainful Employment Disclosure Report
Career Exploration/Awareness Skills -- Diploma

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

  Occupational Skills - 31 credit Diploma

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $5,796

  Books and supplies: $1,447

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, 27% of graduates use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans (2012 graduates): $0
Private & state educational loans (2012 graduates): $0

If less than 50% of graduates take federal or private loans, the median for that type of loan will be zero.

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

  91% of 2012 graduates from this program finished in this time.

Q: *What are the chances of getting a job when I graduate?*

A: The job placement rate for students who completed the program in 2011 is 100%.
The related job placement rate for students who completed the program in 2011 is 100%.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

No direct link to occupational information found on the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org).

Rochester Community and Technical College
Gainful Employment Disclosure Report
Commercial Photography -- Certificate

PROGRAMS

Q: **What program(s) are included in the measures below?**

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Photography - 26 credit Certificate

COSTS

Q: **How much will this program cost me?**

A: Tuition and fees: $4,861

Books and supplies: $1,213

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: **What are my financing options to pay for the program?**

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: **How long will it take me to complete this program?**

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- less than 10 graduates in 2012

Q: **What are the chances of getting a job when I graduate?**

A: Job placement rate is not reported -- too few graduates in 2011.
Related job placement rate is not reported -- too few graduates in 2011.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Photographers

http://www.onetonline.org/link/summary/27-4021.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Mechanical Drafting and Mechanical Drafting CAD/CADD -- Diploma

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

Precision Manufacturing Technology - 41 credit Diploma

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $7,666

 Books and supplies: $1,913

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 3 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

No data reported -- no graduates.

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

No direct link to occupational information found on the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org).

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Securities Services Administration/Management -- Certificate

PROGRAMS

Q: What program(s) are included in the measures below?

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Protective Agent - 16 credit Certificate

COSTS

Q: How much will this program cost me?

A: Tuition and fees: $2,991

Books and supplies: $747

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: What are my financing options to pay for the program?

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- no graduates
Private & state educational loans:	No data reported -- no graduates

SUCCESS

Q: How long will it take me to complete this program?

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- no graduates.

Q: What are the chances of getting a job when I graduate?

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

First-Line Supervisors of Protective Service Workers, All Other   http://www.onetonline.org/link/summary/33-1099.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Rochester Community and Technical College
Gainful Employment Disclosure Report
Business/Office Automation/Technology/Data Entry -- Certificate

PROGRAMS

Q: *What program(s) are included in the measures below?*

A: The institution has been approved to offer the following program(s) in this program area, but they may not all have had graduates.

> Software Applications Specialist - 16 credit Certificate

COSTS

Q: *How much will this program cost me?*

A: Tuition and fees: $2,991

  Books and supplies: $747

Tuition and fees are based on rates for 2012-2013. Other costs are based on the most recent year available. Actual costs will vary depending upon the specific program and courses taken.

FINANCING

Q: *What are my financing options to pay for the program?*

A: In addition to any grant and scholarship aid for which they are eligible, graduates may use loans to finance their education. The median debt for program graduates, including all loans while at this institution:

Federal educational loans:	No data reported -- less than 10 graduates in 2012
Private & state educational loans:	No data reported -- less than 10 graduates in 2012

SUCCESS

Q: *How long will it take me to complete this program?*

A: The program is designed to take 2 semesters to complete for students attending full-time (15 credits/semester). It is expected that students who attend part-time, pursue multiple programs/majors or change their program/major will take longer to complete the program.

> No data reported -- less than 10 graduates in 2012

Q: *What are the chances of getting a job when I graduate?*

A: Job placement rate is not reported -- no graduates or no graduates responded to the employment survey. Related job placement rate is not reported -- no graduates or no graduates responded to the employment survey.

EXAMPLES OF JOBS RELATED TO THIS PROGRAM

The links below provide information from the Department of Labor's Occupational Information Network (O*NET -- www.onetonline.org) about occupations that may be related to this program including the knowledge, skills and education level that may be required.

Data Entry Keyers   http://www.onetonline.org/link/summary/43-9021.00

Prepared for non-degree programs in response to the US Department of Education Gainful Employment Program Regulations.

Source: Minnesota State Colleges and Universities: Research, Planning and Policy

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Course Descriptions

ACCOUNTING

ACCT 1101   Introduction to Accounting
This course covers fundamental accounting terminology and techniques that are used in the business environment. The course will help students develop basic financial and analytical skills that will allow them to understand and evaluate accounting data. Topics include: generally accepted accounting principles, the accounting cycle, financial statements, accrual accounting, internal controls, inventory, and cost behavior. This course may be used as a foundation course for ACCT 2217, Financial Accounting. (Prerequisites: None). (3 C).

ACCT 1410   Supervisory Budgeting and Cost Control
This course is specifically designed to provide students with an understanding of the budgeting process, cost behaviors and the use of budgets to control operations. The purpose and linkages of primary financial statements, identification and use of relevant nonfinancial measurements, key performance indicators, budget planning and control methods, and techniques to evaluate potential capital investments will be covered. These skills are essential for supervisors to be able to understand the role of budgeting in management decision making and to make informed budgetary and cost control decisions. (Prerequisites: None). (2 C/2 lect, 0 lab).

ACCT 1807   Accounting Math/Calculators
This course is designed to provide basic mathematical skills needed to make calculations relative to computing percentages, commissions, interest, promissory notes, discounts, markup, simple interest, payroll and bank reconciling. Additionally, this course covers development of the touch system on desk calculator keyboards and microcomputer number pad keyboards. Students will develop speed and accuracy using the touch system for the four basic arithmetic operations and solving business problems. (Prerequisites: None). (3 C).

ACCT 1814   Payroll Accounting
This course provides a study of the various state and federal laws pertaining to payment of salaries and wages. This includes preparation of employment records, payroll registers, employee earnings records, time cards, and state and federal reporting requirements. (Prerequisites: ACCT 1810 or ACCT 2217 or consent of instructor). (3 C).

ACCT 2217   Financial Accounting
This course is the study of assets, liabilities and owner's equity in the preparation and use of financial statements. The accounting cycle is covered for a service and merchandising business. Additional topics include accruals and deferrals, revenues, expenses, internal control, inventory, payroll, and fixed assets. Interpreting financial statements for corporations will be emphasized. (Prerequisites: None). (4 C/4 lect).

ACCT 2218   Managerial Accounting
This course consists of analyzing and preparing reports for internal use in the company's manage decision-making process. This course contains a study of cash flow and managerial accounting principles including cost behavior, job order costing, process costing, cost-volume-profit relationships, standard costs, budgets, break-even, and differential analysis. Managerial accounting emphasizes accounting concepts required in the strategic decision making process. Managerial Accounting is a continuation of Financial Accounting in the study of accounting. (Prerequisites: ACCT 2217 or consent of instructor). (4 C/4 lect).

ACCT 2234   Computerized Accounting
This course covers the basic structure of integrated computerized accounting software. This software will perform basic accounting functions; i.e., general ledger, accounts receivable, accounts payable, payroll, depreciation, adjusting entries, end of year closing entries, and financial statements and analysis. Additionally, there is an introduction to creating and enhancing worksheets and charts using spreadsheet software. (Prerequisites: ACCT 2217 or consent of instructor).

ACCT 2237   Accounting Spreadsheet Applications
This course covers the use of spreadsheet software to solve accounting related problems. Topics include designing, creating and enhancing worksheets and charts, using formulas and functions to perform calculations and storing, printing and retrieving files. (Prerequisites: ACCT 2217 or consent of instructor).

ACCT 2291   Employment Records/Reports/Database Software

This course covers the various state and federal law pertaining to the computation and payment of salaries and wages. Topics include preparation of employment records, payroll registers, time cards, employee earning records and state and federal reports. Additionally there is an introduction to database software. (Prerequisites: consent of instructor). (3 C).

ACCT 2801   International Study Abroad

Students will explore international accounting and business practices through an international study abroad experience. The course will cover international reporting standards and how they differ from the United States generally accepted accounting principles. The course will focus on different user needs and how reporting and business models are different. Topics will include cash flow, revenue recognition, governmental reporting requirements, and cultural differencing that influence decision-making. (3 C/ 3 hours per week plus international trip).

ACCT 2817   Fundamentals of Intermediate Accounting

This intermediate-level course builds on the material covered in the Financial Accounting and Managerial Accounting courses. The objective is to reinforce students' understanding of the principles and concepts that are fundamental to financial reporting and expand on their importance in a workforce where details are frequently changing. A deeper level of understanding of the qualitative characteristics of accounting information, income statement, statement of financial position, statement of retained earnings and the statement of cash flows will be applied. Particular emphasis is on the revenue and matching principles as they relate to revenue and expense recognition. Generally accepted accounting principles will guide the preparation, analysis, and interpretation of statements, focusing on the users and the usefulness of the information to make decisions. (Prerequisite: ACCT 2218 or consent of instructor). (4 C).

ACCT 2836   Accounting and Database Applications

This course covers the set up and use of commercial integrated general ledger software. This includes the functions of general ledger, accounts receivable, accounts payable, payroll, job cost, time and billing, adjusting and closing entries, financial statements, and electronically transferring information for management reporting. Additionally there is an introduction to database and income tax preparation software. (Prerequisites: ACCT 2234 and ACCT 2218 or concurrent enrollment or consent of instructor).

ACCT 2849   Income Tax

This course covers an explanation and interpretation of the Internal Revenue Code as it applies to an individual income tax return. Topics include the tax formula, filing requirements, filing status, exemptions, gross income inclusions and exclusions, capital gains and losses, deductions for adjusted gross income, itemized deductions, business income and expenses, cost recovery, tax credits and property transactions. (Prerequisites: ACCT 2218 or consent of instructor). (4 C).

ACCT 2850   Accounting Internship

This course is to provide a purposeful occupational experience in the Accounting Careers field. The student is expected to find the internship and develop an individualized competency based internship plan relating to skills and knowledge acquired in the program. Fifty-four hours of internship is one semester credit of internship. Course grade is pass/fail. (Prerequisites: Completion of two semesters of accounting coursework or consent of instructor).

ACCT 2861   Applied Cost Accounting

This course covers accounting for materials, labor and factory overhead in a manufacturing entity. Areas emphasized include job order costing, process costing, standard costing, (ABC) activity based costing, joint cost allocations, CVP analysis, and the implementation of quality concepts. These topics require that students perform accounting procedures to accumulate and record the cost data typical of a business environment. (Prerequisites: ACCT 2218 or consent of instructor). (3 C).

ACCT 2862   Applied Cost/Managerial Accounting

This course is a continuation of accounting for materials, labor and factory overhead and how accounting data and concepts can be interpreted and applied by management in planning and controlling business operations. Topics include the master budgeting process, standard costs, differential costs/revenues, responsibility accounting, department allocations and inventory and production management. Students are required to perform accounting procedures to accumulate and record the cost data typical of a business environment. Cost-profit-volume relationships, capital investment analysis and relevant decision-making topics require the development of analytical and decision making skills used in business. (Prerequisites: ACCT 2861 or consent of instructor). (3 C).

ACCT 2874   Integrated Financial Presentations

This course uses application software to develop ways to process information for a business. Students will study, research, report and present information on various advanced accounting topics. Research will include sources, such as, various accounting boards, associations, and publications and where possible will be obtained using the internet. Presentation software will be used to present the information. (Prerequisites: ACCT 2821 and ACCT 2836 or consent of instructor). (3 C).

ALLIED HEALTH

AH 7205   Delegation for Nurses
Focuses on practical aspects of delegation in nursing including delegation by managers and by staff nurses to nursing assistants. Includes suggestions for preventing delegation problems and building a strong team.

AUTOMOTIVE MECHANIC TECHNICIAN

AMT 1710   Automotive Service Theory
This course covers theory and application of auto safety, tools, fasteners, basic electricity, and general auto service. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

AMT 1720   Electrical Theory
This course covers the theory of basic electricity, starting and charging systems, electrical accessories, and troubleshooting and repair of these systems. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

AMT 1725   Service and Electrical Lab
This lab covers the service, diagnosis, and repair methods of general automotive maintenance and the automotive electrical systems, including starting and charging systems plus electrical accessories. (Prerequisites: AMT 1710 and AMT 1720 or concurrent enrollment). (3 C/0 lect, 3 lab, 0 OJT).

AMT 1730   Hydraulic Brake Theory
This course covers the theory of design, operation, diagnosis, and repair of hydraulic brake systems on automobiles and trucks. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

AMT 1735   Hydraulic Brake Lab
This course covers the service, diagnosis and repair of hydraulic brake systems as will as the necessary maintenance to keep brake systems in good working order. (Prerequisites: AMT 1730 or concurrent enrollment). (4 C/0 lect, 4 lab, 0 OJT).

AMT 1740   Ignition Theory
This course covers the design, function, diagnosis and repair steps of conventional and electronic ignition systems. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

AMT 1745   Ignition Lab
This course covers the service, diagnosis and repair of basic ignition systems as well as the necessary maintenance to keep ignition systems in good working order. (Prerequisites: AMT 1740 or concurrent enrollment). (2 C/0 lect, 2 lab, 0 OJT).

AMT 1810   Engine Repair Theory
This course covers engine design as well as diagnosis, evaluation, and repair, maintenance steps involved in restoring gasoline automotive engines to good running order. (Prerequisites: None). (3 C/3 lect, 0 lab, 0 OJT).

AMT 1815   Engine Repair Lab
This course covers the diagnosis, repair procedure, and testing and maintenance procedures for automotive gasoline engines. (Prerequisites: AMT 1810 as a prerequisite or concurrent). (7 C/0 lect, 7 lab, 0 OJT).

AMT 1820   Alignment & Suspension Theory
This course covers suspension design, alignment geometry and wheel and tire factors as well as recommended maintenance steps concerning suspension systems and related compounds. (Prerequisites: None). (2 C/1 lect, 1 lab, 0 OJT).

AMT 1825   Alignment & Suspension Lab
This course covers diagnosis, evaluation, adjustment and repair of suspension systems and related automotive components. (Prerequisites: AMT 1820 or concurrent enrollment). (3 C/0 lect, 3 lab, 0 OJT).

AMT 1900   Welding
This course covers theory and practice of oxy-acetylene, stick arc, and wire-feed welding. Students will learn theory and safety and have an opportunity to learn and practice hands-on welding skills. (Prerequisites: None). (2 C/0 lect, 2 lab, 0 OJT).

AMT 2650   Auto Science
This course covers basics of hydraulics, gear ratios, and engine physics as related to automobiles and trucks, with emphasis on formulas and calculations of various related factors. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

AMT 2740   Drive Train Theory
This course will cover automotive and light truck clutches, transmissions/transaxles, differentials and drivelines. Content includes

mechanical, electronic, and hydraulic systems, phasing, alignment, balance, gear ratios and diagnosis. (Prerequisites: None). (3 C/ 3 lect, 0 lab, 0 OJT).

AMT 2742   Manual Drive Train Lab
This course is a hands-on lab class and will cover standard automotive and light truck clutches, manual transmissions/transaxles, transfer cases, differentials and drivelines. Content includes mechanical and hydraulic systems, phasing, alignment, balance, gear ratios and diagnosis. (Prerequisites: AMT 2740 or concurrent enrollment). (4 C).

AMT 2744   Automatic Trans/Transaxle Lab
This course is a hands-on lab class in which various transmissions and tranaxles are overhauled, adjusted, and bench tested. Basic overhaul techniques, special tool and gauge usage are taught. (Prerequisites: AMT 2740 or concurrent enrollment). (4 C/0 lect, 4 lab, 0 OJT).

AMT 2750   Engine Performance Theory
This course covers a study of the theory and principles of operation of automotive fuel systems electrical systems, and mechanical conditions related to engine performance and also the operating principles of automotive computers, sensors, and control devices. (Prerequisites: AMT 1720). (4 C/4 lect, 0 lab, 0 OJT).

AMT 2752   Engine Performance Lab
This lab course includes diagnosing, servicing, and correcting problems related to automotive fuel systems including fuel pumps, fuel tanks, injectors, filters, and emission control systems associated with fuel systems on the automobile. Diagnosis will be stressed. It will also deal with computer controls for fuel injection. (Prerequisites: AMT 2750 or concurrent enrollment). (7 C/0 lect, 7 lab, 0 OJT).

AMT 2770   Heating and Air Conditioning
This course covers automatic temperature control systems operation, testing and repairs of vacuum and electrical controls, air flow distribution, and heater system controls. It also will cover the diagnosis and repair of air conditioning components as well as types of refrigerants used. (Prerequisites: None). (3 C/1 lect, 2 lab, 0 OJT).

ANTHROPOLOGY

ANTH 1611   Physical Anthropology & Archeology
The record and analysis of human biological and cultural evolution from earliest humans through the Paleolithic and into the historic periods. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2, Goal 5, Goal 7.

ANTH 1612   Cultural Anthropology
A study of world cultures to enhance an understanding of adaptation and diversity. Topics include socioeconomic systems, class, behavior and social theory. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2, Goal 5, Goal 7.

ARABIC

ARAB 1101   Beginning Arabic I
This course is an introduction to the fundamentals of Arabic, including culture as well as speaking, reading, and writing in a cultural context. Conversation, audio and video materials, short readings, computer work, field trips, and cultural topics are all a part of this course. For students with very little or no previous experience with the Arabic language. Recommended Entry Skills/Knowledge: Basic language analysis skills. (Prerequisites: None). (4 C). MNTC: Goal 8/Global Perspectives.

ARAB 1102   Beginning Arabic II
This course is a continuation of ARAB 1101. The course is very interactive and is conducted in Arabic. The student should reach a high novice proficiency in Arabic, including speaking, listening, reading and writing in a cultural context. DVDs and CDs would be used to improve the listening and talking skills. (Prerequisites: ARAB 1101 or demonstrated equivalent competency). (4 C). MNTC: Goal 8/Global Perspectives.

ARAB 2101   Intermediate Arabic I
This course is a continuation of Arabic 1102: Beginning Arabic I. The students should reach a higher level of an intermediate proficiency in Arabic, including speaking, listening, reading, writing, and grammar in a cultural context. This course is very interactive; conversation, dialogues, DVDs and CDs will be used as a tool to improve listening, speaking and cultural interaction skills. (Prerequisite: ARAB 1102 or demonstrated equivalent competency). (4 C). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

ARAB 2102   Intermediate Arabic II

This course is a continuation of Arabic 2101, Intermediate Arabic I. The students should reach an advanced level of intermediate level of proficiency in Arabic, including speaking, listening, reading, writing, and grammar in a cultural context. This course is very interactive; dialogues, discussion. DVDs and CDs will be used to improve listening and speaking skills. Prerequisites: ARAB 2101 or demonstrated equivalent competency. (4 C). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

ART

ART 1110   Art Appreciation

This course is an introductory exposure to art and to ideas about art and its creation. We will discuss the nature and uses of art, explore the visual elements and principles of design, study a variety of media and techniques, and examine major monuments and works of art from prehistoric through contemporary times. Near the end of the semester we will visit both the Walker Art Center and the Minneapolis Institute of the Arts. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

ART 1111   Art History Survey I

This course is an introductory survey of the visual arts (painting, architecture, and utilitarian objects) from pre-historic times through the 14th century. We will examine works of art both from Western and non-Western civilizations. This course includes lectures, discussions, and student-led presentations. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: CT 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

ART 1112   Art History Survey II

This course is an introductory survey of the visual arts (painting, architecture, and utilitarian objects) from the 14th century through the present time. We will examine works of art both from Western and non-Western civilizations. This course includes lectures, discussions, and student-led presentations. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

ART 1115   Art Study Tour

This course will expose students to a diverse range of historical and cultural works of art and artifacts. Course will include either domestic or international tour destinations. Prior to departure, students will participate in structured online discussions and meet with the class and instructors in order to prepare for the trip. During the Art Study Tour, students will visit art museums, architectural structures, cultural agents, and archaeological sites, depending on the tour. After the Art Study Tour, students will reflect upon and respond to their Art Study Tour experiences. (Prerequisites: None). (3 C/3 lect, 0 lab).

ART 1120   Computer As Creative Media

This course is an introductory survey of artistic expression using the computer as a medium. Students will examine historical artists, creative problem solving, and contemporary trends using the computer as an art medium. No previous artistic experience is necessary in this beginning class. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1121   2D Design

This course is a foundation class in two-dimensional design and color. It is a basic exploration of visual elements and principles of design using a wide variety of media and techniques. This course emphasizes the elements, principles and ideas that constitute the shared language of all the visual arts. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1123   3D Design

This course is a foundation course in three-dimensional design. Students will explore the elements and principles of design using a variety of sculptural media and construction methods. Students will develop an informed personal reaction and critical response to sculptural works of art. This course emphasizes the elements, principles, and ideas that constitute the shared language of all the visual arts. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1124   Graphic Design I

This course is an introduction to graphic design. Students will implement the principles of design to combine typography, illustration, symbols and photographs to solve visual problems. This course will explore historical design styles and place the graphic design into an art historical context. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1130   Digital Art I

This course covers the use of the computer as a drawing and painting medium. Students will explore the basic problems of form &

space, color, the skills needed for drawing & painting, and visual thinking. Work will be place in a conceptual, historical, and philosophical context using the vocabulary of art. Aesthetic judgments are developed in a format of regular critiques. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1131   Presentation Graphics
This course is an introduction to designing and producing effective visual presentations. Students will utilize basic design techniques and the theories of information design to combine type, graphics, photographs, or sounds into meaningful presentations. Students will critically analyze the effectiveness of presentations considering the intended audience. (Prerequisites: None). (3 C/6 lect/studio, 0 lab).

ART 1134   Drawing I
This studio art course covers the basic ideas, methods, and materials of drawing as a means of expression in the visual arts. Working primarily from observation students will explore the basic problem of representing form and space on a two dimensional surface. Students will engage in the creative process using traditional and contemporary methods. An informed and critical response to both historical and class work will be fostered. Aesthetic judgments and a visual vocabulary are developed in a format of regular critical analysis. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1140   Printmaking
This studio art course is an introduction to the techniques of mono-print, relief, intaglio, screenprinting and digital printmaking processes. The course integrates historical and contemporary strategies, approaches and materials. Personal expression and aesthetics in printmaking will be emphasized. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1144   Painting I
This studio art course covers the basic ideas, methods, and materials of painting as a means of expression in the visual arts. Students use the oil media to explore basic problems of color, form, and composition using traditional and contemporary methods. Students will engage in the creative process. An informed personal reaction and critical response to both historical and class work will be fostered. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1164   Ceramics I
This studio art course covers the basics of both hand building and wheel throwing forming methods as means of expression in the visual arts. The ceramic process will be used to explore basic problems of form in three dimensions using traditional and contemporary methods. Students will engage in the creative process. An informed personal reaction and critical response to work will be emphasized. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1175   Art of the Islamic World
This course examines the evolution of Islamic art and architecture using a chronological and regional approach. The course investigates the origins and nature of Islamic religion and culture and introduces students to the development of a unique Arab-Muslim civilization. Contemporary movements and issues in Islamic Art will also be addressed. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Ars, Literature and Philosophy, Goal 8/Global Perspectives.

ART 1184   Introduction to Digital Photography
This course is an introduction to photography as a creative medium. The emphasis is on aesthetic, technical, conceptual and historical concerns in photography. Instruction will include basic and creative camera, lighting and image processing skills; assignments will direct students toward development of personal expression and seeing photographically; media presentations, discussion and studio critiques will address photo-history, interpretation and analysis. Recommended Entry Skills/Knowledge: Basic math. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1193   Art Workshop
This course is an Art Studio course in specific or combined areas of art that address particular needs, situations or opportunities. These classes give students the opportunity to work on original problems that require creative thinking and critical decision-making. This course will cover the history of the Studio Art area. (3 C/6 lect/studio lab).

ART 1212   Figure Drawing
This studio art course focuses on drawing the human figure. Students will primarily work from the model both nude and clothed. This course allows the students to expand their knowledge of historical viewpoints, media exploration and contemporary art issues as they relate to the figure. (Prerequisites: None). (3 C). MnTC: Goal 2/Critical Thinking, Goal 6/Humanities and Art.

ART 1223   Typography I
This course is an introduction to the fundamentals of typography. It is a basic overview of the structure, history, theories, and use of type. Students will learn to identify and classify typefaces. Design of letterforms and visual symbols will be will developed through projects. (Prerequisites: None). (3 C/3 lect, 0 lab).

ART 1232   Interactive Web Design I
This course deals with interface design, usability, accessibility, interaction, and publishing for the web. This course includes history and viewpoints focused on the principles of user-centered design. The emphasis of this course will be researching website usability and production for the web in order to develop portfolio quality websites. (Prerequisites: None). (3 C/0 lect/6 lab).

ART 1233   Interactive Web Design II
This course builds on ART 1232, Interactive Web Design I. Students will refine and continue exploration of interface design, usability, accessibility, interaction, and publishing for the web. Emphasis will be on using appropriate techniques and artistic concepts to create portfolio quality web sites. (Prerequisites: ART 1232). (3 C/0 lect/6 lab).

ART 2217   Art and Design Projects
This course is a collaborative studio course in which groups of students solve real-world art and design problems. The projects are managed and critiqued by both faculty and students. The projects are determined by the strengths and ability of the enrolled students and the projects available through RCTC and partnerships with charitable not-for-profit organizations. (Prerequisites: Completion of first year of Design program or consent of instructor). (3 C/0 lect/6 lab).

ART 2224   Graphic Design II
This course builds on ART 1124, Graphic Design I. The class further sharpens visual conceptualization and technical skills in graphic design. Students will develop a system to conceptualize solutions, solve visual problems using the principles of design, and execute designs leading to the production of portfolio quality pieces. Projects will focus on one or more of the disciplines of Graphic Design. (Prerequisites: ART 1124). (3 C/6 lect/studio, 0 lab).

ART 2230   Digital Art II
This course builds on ART 1130. Students will refine and control the expression of visual thinking using the computer. The emphasis of the course will be on envisioning artistic concept, creating and manipulating images and photographs and producing exhibition quality pieces. Aesthetic judgments are refined through critique. (3 C). (Prerequisites: ART 1130).

ART 2234   Drawing II
This studio art course builds on the basic methods and ideas of Drawing I while creating a greater emphasis on exploring the individual student¿s particular interests in drawing. Students will experiment with historic and contemporary methodologies in drawing. Focus is on problems solving and the creative process. Students will further develop an aesthetic response to their work, the work of the class, and to art in general. (Prerequisites: ART 1134 or equivalent). (3 C/6 lect/studio, 0 lab).

ART 2237   Animation and 3D Modeling
This Studio Art course covers ideas and methods of creating and animating three-dimensional models, including its history and philosophy. Using the computer as a studio space, basic concepts of perspective, modeling, surface creation, and lighting are covered, as well as fundamentals of animation, including timing, viewpoint and narrative. (Prerequisites: None). (3 C/6 lect/0 lab).

ART 2240   Motion Graphics I
This course is the first part of a two-part introduction to graphics, audio and multimedia concepts used in motion graphics. Students will learn professional and industry relevant tools and techniques for creating effective, dynamic animations and video for various media. The student will learn the basics of animation, sound editing, video and scripting. (Prerequisites: MCOM 1190, ART 1120, or consent of instructor). (3 C).

ART 2241   Motion Graphics II
This course is the second of a two part sequence. Multimedia concepts will be further explored, as they relate to motion graphics production. Students will continue to learn professional and industry relevant tools and techniques for creating effective, dynamic animations for various media. (Prerequisites: ART 2240). (3 C).

ART 2244   Painting II
This studio art course builds on the basic methods and ideas of Painting I while creating a greater emphasis on exploring the individual student¿s particular interests in painting. Students will experiment with historic and contemporary methodologies in painting. Focus is on problems solving and the creative process. Students will further develop an aesthetic response to their work, the work of the class, and to art in general. (Prerequisites: ART 1144). (3 C/6 lect/studio, 0 lab).

ART 2264   Ceramics II
This course builds on the basic methods of Ceramics I while allowing greater breadth and depth of individual creative exploration. Additional hand building and wheel throwing methods and forms will be covered. Ceramic raw materials, kiln loading and firing are

introduced. Aesthetic judgments, historical perspectives and visual vocabulary continue to be developed in a format of regular critical analysis. (Prerequisites: ART 1164). (3 C/6 lect/studio, 0 lab).

ART 2280   Intermediate Digital Photography
This course expands on skills covered in ART 1184 with an emphasis on aesthetic, technical, conceptual and historical photographic concerns. Instruction will include color theory, color profiling and proofing, the fine art digital print, composited and montage photographs and the creation of an extended body of photographic work related around a them or idea. Assignments will direct students toward personal expression in digital photography. Media presentations, discussion and studio critiques will address photographic theory and history, interpretation and analysis. Recommended Entry Skills/Knowledge: High school reading and English, basic math. (Prerequisites: ART 1184). (3 C/6 lect/studio, 0 lab).

ART 2281   Art Portfolio
This course provides the fundamentals required to create a portfolio, a resume and an artist statement. The portfolio will bring together a body of work and will include the creation of new work for the purposes of transferring to a four-year art program, for job placement or for exhibition. There will be an accompanying presentation of the work that will be representative of the student's accomplishments at RCTC. (Prerequisite: Permission of instructor). (2 C/1 lect, 1 lab).

ART 2284   Photographic Darkroom Fundamentals
This course emphasizes photographic darkroom technique as well as historical and contemporary photographic themes and processes. Instruction includes an introduction to black and white film development and creative darkroom technique with an emphasis on experimentation and exploration in the darkroom. Assignments will direct students toward personalized expression and the development of a final portfolio. Media presentations, discussion and studio critiques will address photo-history, interpretation and analysis. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: Art 1184: Intro to Digital Photography (may take 1184 and 2284 simultaneously); basic math.

ART 2286   Photo Lighting Techniques
This course emphasizes natural and artificial photography lighting as a creative and practical means to create images for artistic and commercial purposes. Studio, flash and tungsten lighting will be introduced to photograph a variety of subject matter including: still life, portraiture, tabletop, and on location environments. Media presentations, discussion and studio critiques will address photographic theory and history, interpretation and analysis. (Prerequisites: ART 1184). (3 C/6 lect/studio, 0 lab).

ART 2292   Directed Studio
This course offers the opportunity for advanced work in studio classes beyond the second term. Advanced work requires learning to proceed with more personal responsibility. (Prerequisites: Permission of instructor). (2-3 C/2-3 lect/studio, 0 lab).

AMERICAN SIGN LANGUAGE

ASL 1107   American Sign Language I
An introduction to the Signing Naturally Series. This course will take students who have no knowledge of Sign Language to the point where they can function comfortably in a wide variety of situations in the deaf community. Deaf culture is taught throughout the curriculum. Level I will introduce language concepts related to people, places, and things within the immediate environment. (Prerequisites: None). (3 C/3 lect, 0 lab, 0 OJT). MNTC: Goal 8/Global Perspectives.

ASL 1108   American Sign Language II
A continuation of ASL 1107. The course will build on topics, vocabulary and grammar introduced in ASL 1107. The course will encourage students to talk about people in a more abstract way and to talk about the environment removed from the classroom. Students will learn to describe past and current events. Students will also learn appropriate cultural behavior for directing and maintaining attention and a way to talk that keeps others informed. Students will learn strategies for controlling the pace of conversation and resuming conversations after an interruption. (Prerequisites: ASL 1107 or permission of instructor). (3 C/3 lect, 0 lab, 0 OJT). MNTC: Goal 8/Global Perspectives.

BIOLOGY

BIOL 1001   Biology of Health Related Topics
In this course, students will research the current understanding of the health related topics. (Prerequisites: College level reading and writing skills). (1 C).

BIOL 1100   Environmental Biology
This is a one-semester course that introduces students to applied aspects of environmental science. It provides students with a broad overview of the concepts of ecology, systems and interrelationships among organisms and their physical environment, and

current issues in environmental science. Students will examine humans' role in the natural world and the impact of the growth of the human population and the increase in humans' technological ability to make changes in the world. Students will be encouraged to explore societal, political, economic and personal value systems with regard to environmental issues. (Prerequisites: College level reading and writing). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.

BIOL 1101   Elements of Biology
A one-semester course for non-science majors. Blends traditional and contemporary biological concepts for understanding life in today's world. The nature of life, cell structure and function, asexual and sexual reproduction, Mendelian inheritance, human genetic analysis, genetic technology and evolution are covered. Students will evaluate some of the modern genetic and biotechnology applications as to the ethical issues involved. This course will meet the needs of students preparing for further study in biological or health-related fields, and will serve as a general education science course for those students interested in the cellular aspects of biology. (Prerequisites: 12th grade reading and writing skills. A score of at least 26 on the ASAP test, or equivalent). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 9/Ethical and Civic Responsibility.

BIOL 1102   Plant Biology
This course covers the fundamentals of plant biology, focusing on the various types of plants and the basic anatomy and physiology of plants. The course is also designed to promote an awareness of the significance of plants in the natural processes of our biosphere and specifically for humans. Students will be challenged to think about the importance of plants in decision making, from individual, ethical choices to social, economic, and political policy making. (Prerequisites: High school biology or BIOL 1101 or equivalent). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.

BIOL 1107   Fundamentals of Anatomy & Physiology
This course is a one-semester, introductory level Human Anatomy and Physiology course designed to cover basic anatomy and physiology of the major body systems with a secondary focus on medical terminology. The laboratory curriculum does not include dissection of animal specimens. Prerequisites: None. (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BIOL 1110   Human Biology
This course is a one-semester study of the biology of the human body. Each of the component systems will be studied in order to develop an understanding of how each part contributes to the whole. This knowledge will be applied to the analysis of current health and social issues. Laboratory sessions are designed to correlate with lecture topics. Dissection of appropriate animal specimens is included. (Prerequisites: High school Biology (1 year) or BIOL 1101). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BIOL 1127   Principles of Anatomy & Physiology I
This course is part one of the two-semester anatomy and physiology sequence covers cell structure and function, tissues, chemistry as it relates to biological sciences, the integumentary, musculoskeletal and nervous systems. The focus of this course is primarily the structure of the organs and body systems. This course also includes a special emphasis on understanding medical terminology. Appropriate combining forms, prefixes, and suffixes will be learned for each of the body systems. (Prerequisites: College-level reading and writing skills and MATH 0098 or equivalent). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BIOL 1128   Principles of Anatomy & Physiology II
This course is part 2 of the 2-semester anatomy and physiology sequence that emphasizes anatomy and covers the autonomic nervous system, special senses, endocrine system, digestive system, respiratory system, cardiovascular system, lymphatic system, urinary system and reproductive system. The focus of this course is primarily the structure of the organs and body systems. (Prerequisites: BIOL 1127; College level reading and writing and MATH 0098 or equivalent). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BIOL 1214   Physiology of Metabolic Processes
This course will describe in detail the physiology of metabolic processes. (Prerequisites: CHEM 1101 or equivalent and BIOL 1101 or 1107 or 1110 or equivalent). (1 C).

BIOL 1215   Anatomy and Physiology of the Cardiovascular and Lymphatic Systems
This course covers the anatomy and physiology of the cardiovascular and lymphatic systems. (Prerequisites:High School Chemistry or CHEM 1101 or equivalent and High School Biology or BIOL 1101 or BIOL 1107 or BIOL 1110 or equivalent). (1 C/3 lect, 2 lab).

BIOL 1216   Anatomy and Physiology of the Nervous & Respiratory Systems
This course will cover in detail the anatomy and physiology of the nervous and respiratory systems. (Prerequisites: BIOL 1110, CHEM 1101). (2 C/3 lect, 2 lab per week for approximately 9-10 weeks). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BIOL 1217   Anatomy & Physiology I

This course is part one of the two-semester Anatomy and Physiology sequence. The course focuses on cell structure and function, tissues, chemistry as it relates to biological function, metabolism, and major organ systems including the integumentary system, muscular and skeletal systems, cardiovascular system and blood and lymphatic and immune systems. (Prerequisites: High school chemistry or CHEM 1101 or equivalent, and high school biology or BIOL 1101 or BIOL 1107 or BIOL 1110 or equivalent. College-level reading and writing skills, and MATH 0098 or equivalent). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BIOL 1218   Anatomy & Physiology II

This course is part two of the two-semester Anatomy & Physiology sequence This course covers the nervous, respiratory, digestive, urinary, endocrine, and reproductive systems. (Prerequisites: BIOL 1217, CHEM 1117, MATH 0098 or equivalent, and college-level reading and writing skills). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BIOL 1219   Anatomy and Physiology of the Nervous System

This course will cover in detail the anatomy and physiology of the nervous system. (Prerequisites: BIOL 1217, CHEM 1117). (1 C).

BIOL 1220   Concepts of Biology

A study of the biochemical and structural basis of life including cellular respiration, photosynthesis, genetics, origins and evolution of life, community interactions and ecosystems. Intended for biology majors and individuals majoring in forestry, agriculture, conservation, medicine, veterinary medicine, recreation, physical therapy, optometry, pharmacy, home economics and dentistry. (Prerequisites: High school chemistry or CHEM 1101 or equivalent, and high school biology or BIOL 1101 or equivalent). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.

BIOL 1230   Survey of Life Forms

This course is a study of the diversity of plants and animals including the anatomical and physiological study of select organisms. Students study the evolutionary history of biological diversity and the diversity of life. The structure and function of organisms are compared. Key adaptations to survival among organisms from bacteria and protists to plants, fungi, and animals are addressed. Labs will investigate diversity of organisms in form and function, addressing key adaptions to survival of selected organisms. (Prerequisites: High school chemistry or CHEM 1101 or equivalent, and college level reading and writing, and MATH 0098 or equivalent. Co-Requisites: BIOL 1220 or equivalent). (4 C/3 lect, 2 lab).

BIOL 1300   Biological Applications of GIS Technology

This course will teach the use and application of Geographic Information Systems (GIS), computerized systems designed for the storage, retrieval and analysis of geographically referenced data. Applications of GIS Technology will include using analytical tools to explore at a scientific level the spatial relationships, patterns, and processes of organisms in relation to environmental, biological, demographic, geographic, and physical phenomena. The course will be computer-intensive and project-based. (Prerequisites: None). (3 C/3 lect, 0 lab).

BIOL 1400   Environmental Science Internship

This course will provide exposure to environmental sciences fields, as well as the development of an internship experience. Classroom discussion and readings will enrich students understanding of this broad field to prepare them for direct experience through an internship, which will be developed and carried out during the course. (2 C).

BIOL 2000   Ecology

This course teaches the basic principles of organismal, population, community, and ecosystem ecology, with an emphasis on applied ecology. The course is designed so that at the conclusion of the course students will have an appreciation and understanding of the principles of ecology and be able to: (1) explain the various biotic and abiotic forces acting on an organism in its natural environment, (2) determine the importance of these forces under varying conditions, (3) predict how human activities may alter the effects of these forces, and (4) evaluate the trade-off occurring among our biological, social, political, and economic worlds. In addition, students will be introduced to contemporary issues in ecology through assigned readings from recent literature and specific writing assignments.   The lab portion of this course reemphasizes lecture concepts and offers hand-on experience with the concepts in the lab and/or field setting. Lab attendance is a necessity for the course to best experience the applied aspects of ecology. (Prerequisites: BIOL 1100 or BIOL 1101 or BIOL 1102 or BIOL 1220, college level reading and writing). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, and Goal 10/People and the Environment.

BIOL 2020   Fundamentals of Biotechnology

This is a semester-long, lab-intensive course for students currently employed in or ultimately seeking employment in a clinical or research laboratory with a health care focus. This course is specifically designed for students in Biotechnology programs at RCTC. The goal of this course is to provide the student with both a conceptual and practical understanding of basic lab techniques with particular emphasis on developing the skills to perform these specific techniques independently upon completion of the course. (Prerequisites: Grade of "C" or better in CHEM 1127 and BIOL 1220 (or equivalents), College level reading and writing. Co-Requisites: HCCC 1200). (3 C/1 lect, 4 lab).

BIOL 2021   General Microbiology

This is an introductory microbiology course covering the following topics: prokaryotic cell structure, metabolism, growth, genetics, pathogenesis; viruses; the eukaryotic microbes, fungi and protozoa; epidemiology, control of microbial growth, specific and nonspecific immunity and immune disorders. (Prerequisites: BIOL 1217 or BIOL 1220 or equivalent college course and CHEM 1117 or CHEM 1127 or equivalent college course). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BIOL 2040   Internship in Biotechnology
This course is designed to give students hands-on work experience in an actual biotechnology laboratory setting. (Prerequisite: BIOL 2020). (4 C).

BIOL 2200   General Zoology
This course is a survey course of the classification, evolution, ecology, anatomy and physiology of animals. (Prerequisites: BIOL 1220 or BIOL 1230; college-level reading and writing skills and working knowledge of elementary algebra). (4 C/3 lect, 2 lab).

BIOL 2291   Specially Designed Independent Study
Students will demonstrate basic knowledge, understanding and ability to apply and analyze concepts and solve problems in the relationship to cell metabolism and cellular transport mechanisms.

BIOL 2292   Specially Designed Independent Study
Independent Study topic

BIOL 2300   Genetics
This course presents the fundamental concepts of classical transmission genetics and modern molecular genetics. Topics include Mendelian genetics, linkage and mapping, human genetics, population genetics, control of gene expression, genetic engineering and nucleic acid analysis. (Prerequisites: BIOL 1220). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

BUSINESS ADMINISTRATIVE TECHNOLOGY

BTEC 1001   Computer Online Learning
This course is an orientation to the online educational environment, using course management software including technology and communication aspects. Students will be required to demonstrate a basic level of comprehension in using course materials, completing assignments, communicating with students and faculty, researching, accessing resources, and following submission standards, all in the course management system. Standard college-level writing and online discussion formats will be discussed. After completing this course, students will know how to use course management software. This course meets one of the requirement options that all online students must have a knowledge of the course management system. (Prerequisites: None). (1 C/1 hr per wk).

BTEC 1010   Computer Basics
This course covers an introduction to the computer through demonstration, discussion, and hands-on experience with a PC. Students will do projects using word processing, spreadsheet, and database software. (Prerequisites: BTEC 1001, the D2L Online Tutorial, or the instructor's permission is required when the course is offered online. Students must have successfully completed READ 0800 or are testing at READ 0900 reading skills). (1 C/1 hrs per wk).

BTEC 1020   Keyboarding for Computers
This course is designed to provide the student with the basic skills necessary to input and retrieve data from the computer through the use of the keyboard. Students will be taught the touch-type method of alphabetic (and numeric) keyboarding with great emphasis placed on speed and accuracy. The course is designed for students who have no keyboarding skills. (Prerequisites: BTEC 1001, D2L Online Tutorial, or instructor's permission is required when the course is offered online. College level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (1 C).

BTEC 1030   Keyboarding Speed/Accuracy Improvement
This course offers a proven scientific method to eliminate errors and build speed systemically. The course helps students identify particular stroke combinations that are causing speed and/or accuracy problems and prescribe individual practice to overcome these problems. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. College-level reading; BTEC 1020, BTEC 1050, equivalent skill or permission of instructor). (1 C/2 hrs per wk).

BTEC 1050   Keyboarding
This course covers basic "touch keyboarding" skill development and the use of a computer keyboard to produce simple keyboarding tasks and applications. Basic formatting and proofreading skills and straight-copy skill development will be included. This course is intended for students with limited or no previous keyboarding instruction. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (2 C/2 hrs per wk).

BTEC 1150   Introduction to Desktop Publishing
This course is an introduction to computerized publications design utilizing professional publishing software such as Adobe InDesign. It will include discussion and practical hands-on experience with page design, layout, graphics, and typography. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better. Able to use Keyboarding and basic word processing skills). (2 C/2 hrs per wk).

BTEC 1230   Machine Transcription
This course will utilize word processing through intensive machine transcription drills from dictated tapes. Emphasis will be placed on spelling, punctuation, vocabulary, and grammar with application of these concepts in memos, letters, reports, and business forms generated in a variety of business settings. Additional focus will be on the concepts of mailability, efficiency, professionalism, and decision-making. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. Keyboarding skills of at least 35 words a minute or instructor's approval. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 1240   Quality Issues for Business Transcription
This course will focus on preparation of business documents using proper transcription guidelines and grammar rules. Topics covered will be developing proofreading strategies, mastering techniques for using reference materials, and application of these techniques through preparation of quality business documents. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. Keyboarding skills of at least 35 words a minute or instructor's approval. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better. ENGL 1630 or ENGL 1117). (1 C).

BTEC 1320   Word Processing I
This course teaches utilization of word processing software to perform basic word processing applications. Applications will include document creation, editing, storage and retrieval; preparation of common business documents such as memos, letters, envelopes, labels, and reports; merging documents with stored variables; file maintenance; and proofreading prepared documents. Improvement of keyboarding speed and accuracy will also be emphasized. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. BTEC 1020, BTEC 1050 or equivalent skill or permission of the instructor. College-level reading and writing skills: Appropriate scores on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 1510   Internet Applications
This is a PC-based course that will provide hands-on instruction on accessing information through the Internet. Internet terminology, history, and ethics will be topics of discussion. The student will then complement their knowledge of the Internet using Hyper Text Markup Language (HTML) and other available web design tools that are used to create Web pages that can be placed on the Internet. The students will also create their own Web pages for business or personal use. (Prerequisites: BTEC 1001, D2L Online Tutorial, or instructor's permission is required when the course is offered online. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental courses with grade of C or better.) (2 C/2 hrs per wk).

BTEC 1550   Introduction to Windows
This course will introduce the student to Windows with a hands-on training approach. The student will learn to use Windows for application startup, basic operations, file management, and customizing work environment and desktop. (Prerequisites: BTEC 1001, D2L Online Tutorial, or instructor's permission is required when the course is offered online. Students must have successfully completed READ 0800 or are testing at READ 0900 reading skills). (2 C/2 hrs per wk).

BTEC 1600   Introduction to Medical Terminology
This course will introduce the building of medical words including prefixes, suffixes, and combining forms from Greek and Latin word parts and the rules for connecting them to form medical terms. Special emphasis is placed on spelling, pronunciation, and definition of medical words. A foundation is created for the continued development of a medical vocabulary. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better.) (2 C/2 hrs per wk).

BTEC 1610   Medical Terminology: Body Systems and Diseases
This course covers the introduction to body systems and diseases that relate to them. This course will utilize graphic-based readings, interactive exercises, audio-based terminology tabled, audio files, and quizzes. Study of the following anatomical systems and some common diseases associated with them will be given special emphasis: lymphatic, cardiovascular, male and female reproductive, gastrointestinal, respiratory, and urinary. Special attention will be given to concepts pertaining to levels of organization of the whole body, health care system terminology, anatomy/physiology of blood, and oncology. This course is designed to help students prepare for a variety of professional and paraprofessional careers in the medical field. (Prerequisites:

BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental courses with grade of C or better). (2 C/2 hrs per wk).

BTEC 1650   Quality Issues for Medical Transcription
This course will focus on preparation of medical documents using the AHDI (Association of Healthcare Documentation Integrity) Book of Style for Medical Transcription and the Gregg Reference Manual as standard guides. Topics will include proper rules for transcribing abbreviations, classifications, laboratory data and values, medications, numbers, symbols, units of measure, medical homonyms, punctuation, and grammar when they are incorporated in medical reports. (2 C). (Prerequisites: BTEC 1001, D2L Online Tutorial, or instructor's permission is required when the course is offered online. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better. ENGL 1630 or ENGL 1117 is required. Keyboarding skills).

BTEC 1670   Medical Transcription I
This course introduces medical transcription skills using different dictators from a variety of medical specialties. A variety of medical transcription experiences is provided with special emphasis on medical report formatting and medical letter style. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. Keyboarding skills, BTEC 1600 or concurrent registration, ENGL 1630 or ENGL 1117, and BTEC 2620 or concurrent registration. College-level reading and writing skills: appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 1680   Medical Transcription II
This course is a continuation of Medical Transcription I. There will be particular concentration on proper formatting techniques, building speed and accuracy, and advanced editing and proofreading. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. Keyboarding skills and BTEC 1670. College-level reading and writing skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 1720   Introduction to Administrative Clinic Assistant
This course will define the role of an administrative clinic assistant. Students will understand the importance of obtaining essential information when a patient arrives for an appointment and how it correlates with the business aspect of patient care. (Prerequisites: BTEC 1001, Desire 2 Learn, Online Tutorial, or the instructor¿s permission is required when the course is offered online). (1 C/lect, 0 lab).

BTEC 1730   Patient Procedures as an Administrative Clinic Assistant
This course will identify standard procedures an administrative clinic assistant will be completing with the patient, such as: obtaining height, weight, temperature and blood pressure. Confirm medical history with patients and prepare patients for physical examination. Topics also include the importance of ethical protocol, problem solving, communication when gathering information, diversity, integrated technology, disability considerations, causes of stress, stages of stress and tools needed to interact with patients and family members as an administrative clinical assistant. (Prerequisites: BTEC 1001, Desire 2 Learn, Online Tutorial, or the instructor¿s permission is required when the course is offered online). (2 C/1 lect, 1 lab).

BTEC 2200   Information Resources Management
This course focuses on electronic, automated and non-automated information storage and retrieval systems and on the management policies and procedures necessary for creating, controlling, implementing, and evaluating today's information systems. Students will become familiar with filing procedures, equipment, and the various aspects of electronic and paper record management and control. Basic rules of indexing and their application are mastered, and the role of efficient records management in the total operation of business is stressed. Database management is taught, and hands-on computer projects are part of this course. (Prerequisites: BTEC 1001, the D2L Online Tutorial, or the instructor's permission is required when the course is offered online. Basic knowledge of the computer keyboard. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better. BTEC 2350 or equivalent). (3 C/3 hrs per wk).

BTEC 2220   Business Communications
This course provides the student with an introduction to principles of business utilized in both oral and written communication. Special emphasis is placed upon refreshing grammar skills, formatting skills, and recognizing the interrelationships between the business communications and the assessment of the audience. (Prerequisites: BTEC 1001, D2L Online Tutorial, or instructor's permission is required when the course is offered online. ENGL 1630 or ENGL 1117. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 2270   Office Procedures
This course capstones the administrative assistant training. Students will process a variety of mailable documents, learn proper

business telephone etiquette, use presentation software to create electronic slides, use current manuals and Internet technology to do research, maintain an electronic calendar, send and receive e-mail, perform database and spreadsheet tasks, and learn to set priorities when working independently to perform various office tasks. (Prerequisites: BTEC 1001, D2L Online Tutorial, or instructor's permission is required when the course is offered online. BTEC 2200, BTEC 2350, BTEC 2220, BTEC 1220, and BTEC 2330 or concurrent enrollment. Keyboarding skills of 35 wpm or higher. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 2330   Word Processing II

This course teaches students work processing software to perform advanced word processing applications. Applications will include customizing documents and adding visual appeal, enhancing the presentation of text, and organizing text in documents. Improvement of keyboarding speed and accuracy will also be emphasized. (Prerequisites: Competencies equal to or successful completion of BTEC 1320, BTEC 1001, D2L Online Tutorial or the instructor's permission is required when course is offered online. College-level reading: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 2350   Microcomputer Business Applications

This microcomputer course is designed to provide "hands-on" training in the use of the computer for information processing. Students complete applications using software programs that provide the following business productivity tools: word processing, spreadsheets, and database management, with a brief introduction to the operating system. An integrated project will be completed as a final assignment. (Prerequisites: BTEC 1001, D2L Online Tutorial, or instructor's permission is required when the course is offered online. Basic knowledge of the computer keyboard. College-level reading and writing skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 2355   Microsoft Business Applications

This course is designed to provide "hands-on" training in the use of the computer for information processing. Students complete applications using software programs that provide the following business productivity tools: word processing, spreadsheets, database management, presentations and communication software with a brief introduction to the operating system. (Prerequisites: BTEC 1001, the D2L Online Tutorial, or instructor's permission is required when the course is offered online. College-level reading and writings skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with a grade of C or better. BTEC 1010 or instructor permission). (4 C/4 hrs per wk).

BTEC 2360   Advanced Excel

This course is designed for continued development of advanced spreadsheet knowledge and skills using the Microsoft Excel program. Knowledge of the features of a spreadsheet program will be expanded. Students will complete advanced applications using Microsoft Excel. Integration with other software programs will be briefly covered. (Prerequisites: BTEC 1001, D2L Online Tutorial or the instructor's permission is required when the course is offered online; BTEC 2350 or BTEC 2355 or instructor's permission. College-level reading skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better). (2 C/2 hrs per wk).

BTEC 2370   Advanced Access

This course expands on the fundamentals of databases: multiple tables, advanced queries, design of forms and reports, command buttons, exchanging data and managing and securing a database. The student will develop a broad background in the use of Microsoft Access. (Prerequisites: BTEC 1001, D2L Online Tutorial or instructor's permission is required when the course is offered online; BTEC 2350 or BTEC 2355, BTEC 2200. College-level reading skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better). (2 C/2 hrs per wk).

BTEC 2450   Powerpoint

This course is designed to provide the student with the basic skills in creating computerized presentations. Students will learn to create and modify their presentations and to have charts in their presentations. They will use additional features such as slide master, outline view, bulleted lists, animated objects, and sound effects. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. Basic knowledge of the computer keyboard. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better. BTEC 1010 or instructor permission). (1 C/1 hr per wk).

BTEC 2460   Computer Voice Technology

The purpose of this class is to introduce students to voice technology on the computer. The students will train the computer to recognize their individual voice, and then the students will learn how to use their voice to create, edit, and print documents. Students will create time-saving voice macros and templates. Stored documents from disk will be retrieved and edited by voice. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online; very helpful to know Microsoft Word or some other word processing software. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (1 C/1 hr per wk).

BTEC 2600   Microsoft Office Outlook

This course focuses on basic through advanced skill sets using the Microsoft Outlook 2010 communication software application. The course learning objectives align with the Microsoft Office Specialist (MOS) 77-884 certification exam objectives. Students will learn email etiquette when using Microsoft Outlook to format message content by using character and paragraph formatting, use graphic elements such as charts and tables, and create contact records, tasks, and appointments from incoming messages. Students will create contact groups, schedule meetings, and share schedules to facilitate communication with other Outlook users. (Prerequisites: BTEC 1001, Desire 2 Learn, Online Tutorial, or the instructor¿s permission is required when the course is offered online). (1 C).

BTEC 2610   Medical Specialties and Pharmacology
This course covers the various specialty areas of medical practice, medications commonly used in those areas, and location of medications in the Physician's Desk Reference and other reference materials. Additional topics covered will be drug classifications and modes of administration, characteristics of typical drugs, and usage of the PDR in location, correct spelling, and proper interpretation of medications in dictated material. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online; BTEC 1600, BTEC 1610 or concurrent registration. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (2 C/2 hrs per wk).

BTEC 2614   Customer Service Skills and Concepts
This course will present effective functioning in a service economy. The course will define and describe the nature and characteristics of services, ways services need to be presented using basic customer service terminology. Each student will learn skills to create positive customer relations, to communicate effectively with customers, identifying problem-solving methods in the customer service world. Topics include problem solving, service quality, projecting a professional image, communicating with customers, handling complaints, maintaining time management, and working with culturally diverse clients. (Prerequisites: BTEC 1001, D2L Online Tutorial or the instructor's permission is required when the course is offered online. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 2615   Planning and Forecasting based on Customer Satisfaction
This course covers planning and implementing techniques in the service environment to maintain and enhance business forecasting by focusing on customer service. The student will recognize strategies to capitalize on customer service in the work organization. Students will plan, coordinate, and present customer service packages. Attention will be given to the identification and utilization of various forms and documents instrumental in providing customer satisfaction. (Prerequisites: BTEC 1001, D@L Online Tutorial or the instructor's permission is required when the course is offered online. College level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (2 C/2 hrs per wk).

BTEC 2620   Pathophysiology I
This course covers various specialty areas of medical practice, the function of the related body system, diseases that are common to that system and their causes, and medications commonly used for those diseases. Specialty areas covered are: gastrointestinal, urinary, reproductive, respiratory, and cardiovascular systems. Additional topics covered will be drug classifications, modes of administering medications, and characteristics of typical drug effects. Emphasis will be placed on disease processes, laboratory and diagnostic examinations, surgical procedures, and treatments relating to each system. (Prerequisites: COMP 1001 or BTEC 1001 or the instructor's permission is required when the course is offered online. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental courses with grade of C or better). (3 C/3 hrs per wk).

BTEC 2640   Medical Word Processing
This course covers an integration of medical terminology, medical report formatting, medical correspondence formatting, and medical office document formatting with word processing skills. Emphasis will be placed on formatting and proofreading skill development and accuracy. All medical documents will incorporate medications, medical specialties, and/or medical office concepts. Keyboarding speed and accuracy will continue to be developed. Special emphasis will be placed on importing data to create clinical notes and medical letters. (Prerequisites: BTEC 1001, D2L Online Tutorial or the instructor's permission is required when the course is offered online. BTEC 1230 and BTEC 1600. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 2650   Medical Office Procedures
This course covers medical office career information, medical ethics, and professional liability. Topics covered will include medical receptionist tasks, working with patient files, medical records and billing, medical insurance, making meeting arrangements, scheduling patient appointments, and telephone skills. (Prerequisites: BTEC 1001, D2L Online Tutorial, or the instructor's permission is required when the course is offered online. BTEC 1600, BTEC 1320, BTEC 2620. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 hrs per wk).

BTEC 2835   CCS/CCS-P Review

This course is the online capstone study and review for the certified coding specialist (CCS) and certified coding specialist-Physician (CCS-P) national examination by AHIMA. This course offers you a study plan, review of all major examination topics, mock pretest and post-test, guidance to good computer test-taking skills, and a discussion board/chat room for discussion of questions with classmates. (Prerequisites: Should have a minimum of three years coding experience). (1 C/1 Lec, 0 Lab, 0 OJT). Offered: Fall and Spring.

BTEC 2840   BTEC Internship I
Internship is the opportunity to earn credit for work experience related to the student's career objective. A total of 2 credits may be earned per semester. (Prerequisites: Major in BTEC Program. Successfully completed ENGL 1630, BTEC 1320, BTEC 2350, BTEC 2330, BTEC 2870, BTEC 2450, BTEC 2200, BTEC 1230, and BTEC 2220). (2 C/65 hours of work experience per semester credit).

BTEC 2841   BTEC Internship II
Internship is the opportunity to earn credit for work experience related to the student's career objective. A total of 3 credits may be earned per semester. (Prerequisites: Major in BTEC Program. Successfully completed BTEC 1320, BTEC 2350, BTEC 23330, BTEC 2870, BTEC 2450, BTEC 2200, BTEC 1230 and BTEC 2220). (3 C/48 hours of work experience per semester credit).

BTEC 2870   Employment Strategies
This course offers a highly individualized approach to developing job-seeking skills. The student will create resumes, job application letters, thank you letters, complete job application forms, and prepare for the employment interview. (Prerequisites: BTEC 1001, D2L Online Tutorial, or instructor's permission is required when the course is offered online. It is recommended that students take this course near the completion of a program/degree as job-seeking time approaches to prepare current/relevant application materials. College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental courses with grade of C or better.) (1 C/1 hr per wk).

BTEC 2880   Developing an Electronic Portfolio (e-folio)
This course will explain electronic portfolios, and it will explain what is included in the electronic portfolio when it is used as a type of resume. This course will utilize the eFolio Minnesota management program. Students can create their information and then access their information and revise it at any time using the Internet. Students will decide what information they want to show to the viewers. Students will look at the different parts of the eFolio Minnesota management program and decide what parts they want to use. (Prerequisites: BTEC 1001, D2L Online Tutorial or instructor's permission is required when the course is offered online. Basic knowledge of the computer keyboard. College-level reading and writing skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better.) (1 C/1 hr per wk).

BUILDING UTILITIES MECHANIC

BU 1500   Power Plant Theory
This course uses slides, lecture, and discussion. Students will study the proper operation theory of boilers, steam turbines and steam engines. Topics include hot water boiler systems, fitting, and accessories. Students will identify water tube and fire tube boilers, steam turbines, steam engines, along with steam fittings and accessories. (Prerequisites: Enrollment in the BUM program or instructors permission). (4 C/4 lect, 0 lab, 0 OJT).

BU 1510   Welding Theory and Safety
This course covers actual use of arc, gas, and M.I.G., T.I.G., welding along with proper safety and equipment care. Recommended: Basic technical skills/knowledge; High School Diploma or G.E.D. (Prequisites: None). (1 C).

BU 1520   Welding and Equipment Repair
This course allows students to weld various projects using oxy-act (TAW, GMAW, SMAW). Skills will include turbine repair, braze welding, metal cutting, using shears, plasma cutters, and flame cutters. (Prerequisites: Enrollment in the BUM program or instructor permission). (2 C/0 lect, 4 lab, 0 OJT).

BU 1530   Plumbing Plant Theory
This course covers various aspects of the plumbing trade. Consideration will be given to sanitary and waste systems along with proper venting. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

BU 1540   Power Plant Operation
Students will have the opportunity to operate a boiler. Students will become familiar with fittings and accessories or a working steam boiler. Students will dismantle parts of the boiler for repair. Water will be tested to ascertain its contents. (Prerequisites: None). (4 C/0 lect, 4 lab, 0 OJT).

BU 1550   Plumbing Lab
Actual plumbing situations will be encountered and students will solve plumbing installation problems. Other activities include using pipe wrenches, identifying different types of pipe and fittings, and establishing proper draining. (Prerequisites: Concurrent

with BU 1530). (2 C/0 lect, 2 lab, 0 OJT).

BU 1570   Basic Boiler Theory
Preparatory class for the Special Engineers License. Materials covered will include boiler safety, boiler operation, boiler fittings and accessories, and Minnesota Boiler code as it pertains to the Special Engineers License. (Prerequisites: None). (1 C).

BU 1611   Basic Electricity
This course covers the basic concepts of AC and DC electricity. Included are voltage, current, resistance, and power usage in series, parallel, and combination circuits. (Prerequisites: Successful completion of MATH 1015 or appropriate test scores at a MATH 0098 level before enrolling). (1 C/1 lect, 0 lab, 0 OJT).

BU 1621   Electrical Theory I
This course covers wiring layout for general lighting circuits and switches in residential applications. The basic theory of inductors, capacitors, resistors, SCR's, diodes, transistors, and AC electric motors is also presented. The student will also examine the basic design and installation of electric motor controls. (Prerequisites: BU 1560; Successful completion of MATH 1015 or appropriate test scores at a MATH 0098 level before enrolling). (3 C/3 lect, 0 lab, 0 OJT).

BU 1631   Electrical Lab I
This course covers the basic theory, operation, and practical applications of industrial electronics, electric motors, AC-DC circuits and general wiring diagrams in commercial applications. In this course students will also learn motor control requirements including: control symbols, line diagrams, wiring diagrams, inlays, contacts, and starters. (Prerequisites: BU 1621; Successful completion of MATH 1015 or appropriate test scores at a MATH 0098 level before enrolling). (3 C/0 lect, 6 lab, 0 OJT).

BU 1641   Electrical Theory II
In this course students will continue to examine the basic design and installation of electric motor controls. The theory and applications of single-phase and three-phase transformers are also covered. The theory of programmable controllers and advanced motor controls is also presented.(Prerequisites: BU 1720; Successful completion of MATH 1015 or appropriate test scores at a MATH 0098 level before enrolling). (3 C/3 lect, 0 lab, 0 OJT).

BU 1651   Electrical Lab II
This course provides the student with advanced motor control applications including: jogging, counting, braking, plugging, reduced voltage starting, and latching relays. The theory, operation, installation, and practical application of programmable controllers are covered. Solid-state motor controls are also covered. The application and characteristics of single-phase and three-phase transformers are covered. (Prerequisites: BU 1631, BU 1641; Successful completion of MATH 1015 or appropriate test scores at a MATH 0098 level before enrolling). (4 C/0 lect, 4 lab).

BU 1661   Electrical Safety and National Codes
This course covers the Minnesota licensing requirements and presents the National Electric Code. Topics included from Code are branch circuits, feeders, general requirements, overcurrent protection, grounding, conductors, and electrical safety. (Prerequisites: Successful completion of MATH 1015 or appropriate test scores at a MATH 0098 level before enrolling). (2 C/2 lect, 0 lab, 0 OJT).

BU 2500   Refrigeration Theory
This course covers fundamentals of refrigeration, tools and materials, basic refrigeration systems, compression systems, refrigerant controls, refrigerants, domestic refrigerators and freezers, and principles of installing and servicing small hermetic systems. (Prerequisites: None). (3 C/3 lect, 0 lab, 0 OJT).

BU 2506   Refrigeration Lab
This course covers lab experiences working with tools, tubing, compressors, refrigerant controls, refrigerant, and testing equipment. (Prerequisites: BU 2500). (3 C/0 lect, 3 lab, 0 OJT).

BU 2512   Commercial Refrigeration
This course covers fundamentals of Commercial and Special Refrigeration; condensers, evaporators, compressors, trouble-shooting. The concepts will be applied in BU 2518. (Prerequisites: BU 2500). (3 C/ 3 lect, 0 lab, 0 OJT).

BU 2518   Commercial Refrigeration Lab
This course covers lab experience in commercial refrigeration. Students will operate and troubleshooting refrigeration equipment including compressors, flow controls, and heat exchangers. (Prerequisites: BU 2500). (2 C/2 lect, 0 lab, 0 OJT).

BU 2530   Refrigerant Certification
This course is designed to assist refrigeration and air conditioning technicians in becoming successfully certified. Technician will be EPA approved and certified in the areas tested which include Type I, II, III, or Universal if all sections are passed. (Prerequisites: None). (1 C/1 lect, 0 lab, 0 OJT).

BU 2555   Building Utilities Mechanics Co-Op
This course is designed to provide the student with a purposeful occupational experience in the building utilities mechanic field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. 225 hours of on the job training are required. (Prerequisites: Concurrent or successful completion of BU 2500 and BU 2512). (5 C).

BU 2602   HVAC/Refrigeration Systems Theory
This course covers principles of HVAC and air conditioning systems. Furnaces, boiler, air conditioners, heat pumps, economizers, heating and cooling decks, and zones are identified and explained. (Prerequisites: BU II courses or background in electricity). (4 C/4 lect, 0 lab, 0 OJT).

BU 2612   HVAC/Refrigeration Systems Lab
This course covers principles of HVAC and air conditioning systems. Furnaces, boiler, air conditioners, heat pumps, economizers, heating & cooling decks, and zones are analyzed and operated. (Prerequisites: BU II courses or background in electricity and concurrent or successfully completed BU 2602). (2 C/0 lect, 2 lab, 0 OJT).

BU 2622   HVAC Control Systems Lab
This course covers the principles of HVAC controller systems. Various types of computer aided control, electro-mechanical, electronic, and pneumatic systems will be analyzed and operated with an emphasis put on wiring and troubleshooting of the control circuits. (Prerequisites: Successful completion of BU II courses or background in electricity and concurrent or successful completion of BU 2632). (2 C/0 lect, 2 lab, 0 OJT).

BU 2632   HVAC Control Systems Theory
This course covers the principles of HVAC controller systems. Various types of electro-mechanical, electronic, and pneumatic systems will be presented and discussed with an emphasis put on computer aided control. (Prerequisites: BU II courses or background in electricity). (3 C/3 lect, 0 lab, 0 OJT).

BU 2642   Boiler Review
Students will review boiler regulations, fittings, Minnesota law pertaining to high and low pressure boilers and turbines including hot water systems. (Prerequisites: None). (1 C/1 lect, 0 lab, 0 OJT).

BU 2651   Building Utilities Mechanic Co-op
This course is designed to provide the student with a purposeful occupational experience in the building utilities mechanic field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. 36 hours of on-the-job training is required. (Prerequisites: All first year courses and/or instructor permission). (1 C/0 lect, 0 lab).

BU 2655   Building Utilities Mechanics Co-Op
This course is designed to provide the student with a purposeful occupational experience in the building utilities mechanic field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. One credit of co-op is equal to 36 hours of on-the-job training. (Prerequisites: All first year courses and/or instructor permission). (1 C/0 lect, 0 lab).

BU 2661   Building Utilities Mechanic Co-op
This course is designed to provide the student with a purposeful occupational experience in the building utilities mechanic field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. 72 hours of on-the-job training is required. (Prerequisites: Concurrent or successful completion of BU 2500, 2512, 2602 and 2632). (2 C/0 lect, 0 lab).

BUSINESS

BUS 1101   Introduction to Business
This is an introductory course in which students cover the major functional areas of business, including economics, entrepreneurship, management, marketing, finance, and their more specialized sub functions. This course also covers the foundations of American business, including the nature of the free enterprise system, business's social responsibilities, and the structure of American business in the global market business. Business career opportunities will be discussed and explored. (Prerequisites: College level reading). (3 C/3 lect).

BUS 1144   Opening and Managing A Small Business
This course is designed to assist students in identifying and evaluating a business opportunity and the necessary steps involved in opening and managing a small business. The course will introduce the elements of business ownership including; the various

forms, entry strategies, risk taking, innovation and business development. Students will analyze the market potential, evaluate the financial feasibility based on the market and determine the management infrastructure necessary to operate a successful business. Topics include; entry strategies, planning, financing options, location, marketing, personnel, cash flow management, and inventory control. (Prerequisites: College level reading and MATH 0098). (3 C/3 lect).

BUS 2101   Personal Finance
Fundamental concepts of personal financial management, focusing on the major personal financial planning situations that individuals and families encounter. Money management topics included: budgets, banking, tax strategies, investments, credit, insurance, real estate, interest, pension investments, and retirement planning. (Prerequisites: College level reading). (3 C/3 lect, 0 lab).

BUS 2144   Introduction to E-Business
This course provides an understanding of electronic business. It enables students to understand how it is managed and to understand the opportunities, limitations, issues, and risks. Through readings, class discussions, and interactive exercises, learners gain an understanding of how to create a global market and drive business through the Internet. Learners are introduced to the following topics: creating an on-line business model, identifying market opportunities, assessing infrastructure requirements, and understanding key opportunities and challenges in conducting e-business. Learners apply what they have learned through development of an e-business plan. (Prerequisites: None). (3 C/3 lect, 0 lab).

BUS 2150   Introduction to International Business
This course is an overview of the global perspective of business, examining the need for professional business practices, ethics, protocol/cultural behavior, etiquette, and social responsibility of international trade and strategy. The course will address the economics and politics, including current and pending trade agreements, of international trade and investment; the global monetary systems; and how/why the world's countries differ. (Prerequisites: None, but BUS 1101 is recommended). (3 C/3 lect, 0 lab).

BUS 2201   Principles of Marketing
This course provides the student with an introduction to marketing analysis, planning, decision-making and program implementation. Students gain an understanding of the principles of marketing and their interrelationship through a business marketing simulation and development of a formal market plan. (Prerequisites: College level reading, math, and problem sovling-proficiency). (3 C/3 lect).

BUS 2202   Promotional Strategies
This course is a study of the principles and practices of promotion for the business organization. Students will study the components and interrelationships of the promotional mix: personal selling, sales promotion, advertising, public relations and direct marketing. Topics include understanding the process and benefits of implementing an integrated marketing communication (IMC) strategy; analyzing the functional areas of the promotional mix; identifying how brand relationships are created and maintained; determining what impacts consumers and business buyer's decisions and building relationships through data management. (Prerequisites: None). (3 C/3 lect, 0 lab).

BUS 2210   Legal Environment of Business
This is a survey course which will provide the student with a basic understanding of the American legal system and its processes and an enhanced understanding of its affect on the modern global business environment. Topics include an introduction to American and international law, ethics and social responsibility, cyber law, litigation and alternative dispute resolution, administrative law, constitutional law, criminal law, torts, contracts, cyber crimes and torts contracts, consumer protection, intellectual property, employment relationships, and business formation. (Prerequisites: College level reading and writing skills or permission of instructor). (3 C/3 lect).

BUS 2212   Business & Economic Statistics
This course is an introduction and overview of statistics. Topics will include descriptive statistics, probability, sampling methods, confidence intervals, one and two sample tests of hypothesis, analysis of variance, and linear regression. Statistical calculators and software will be used extensively throughout the class. Emphasis is on application of statistical techniques and procedures for solving business-related problems, rather than mathematical theories. (Prerequisites: College level reading and MATH 0099). (4 C/4 lect).

BUS 2214   Retailing
The study of the fundamental and key components of retailing as a marketing approach to consumers and business growth. Elements of the retail marketplace will be explored including: the definition and description of the most common forms of successful retailers today and their relationships with other retailers in competition with suppliers, advertisers, and the all-important consumer of today. Elements of site selection, store layout and design will set the stage for studying the analytical side of retailing by understanding and building merchandise budgets, balance sheets and methods of inventory control. The personal side of retailing will be covered by studying the topics of staffing and human resources, consumer behaviors, and advertising in today's world-wide-web market. (Prerequisites: College level reading). (3 C/3 lect).

BUS 2215   Salesmanship
This course will help the student develop the relationship, product, customer, and presentation strategies of personal selling. This will include retail store salesmanship, outside sales, service and all other aspects of the selling profession. (Prerequisites: College level reading or permission of instructor). (3 C/3 lect).

BUS 2225   Cyberlaw
This course is an introduction to the legal environment of doing business in cyber space. Topics include: Jurisdiction, intellectual property issues (international trademark & copyrights), business & financial issues (online contracting, taxation, and online securities offerings), social issues, security, computer crime, and international issues. Recommended Entry Skills/Knowledge: College-level English reading and writing. (Prerequisites: None). (3 C/3 lect).

BUS 2227   Business Law I
This course will provide the student with a basic understanding of American Law as it relates to and is used in business applications. Fundamentals in contract law, tort law, criminal law, the legal system, agency law, sales law and some commercial paper law and E-law are addressed. (Prerequisites: College level reading and writing skills or permission of instructor). (3 C/3 lect).

BUS 2232   Principles of Management
This course provides an analysis of the functions performed by managers of all types of organizations. Current applications in: strategic planning and control, managing workplace dynamics, managerial ethics and corporate social responsibility, leadership, teamwork in organizations, and developing effective communications will be emphasized. (Prerequisites: College level reading, math, and problem-solving proficiency). (3 C/3 lect).

BUS 2235   Organizational Dynamics
This course focuses on the behavior of individuals and teams within diverse organizations and organizational structures and processes. Models and tools for diagnosing organizational culture and values, communications in the workplace, inter-group conflicts and negotiations, motivational applications, team dynamics, stereotyping and facilitating organizational change are analyzed. (Prerequisites: None; Recommended Entry Skills: BUS 2232; college-level reading, math, and problem-solving). (3 C).

BUS 2240   Project Management
Project Management strikes a balance between the technical and human aspects of managing projects. This course will enable the student to discover the strategic role of projects in contemporary organizations, how projects are prioritized, what tools and techniques can be used to plan and schedule projects, what organization and managerial styles will improve chances of project success, and how project managers address interpersonal relations to support project success. (Prerequisites: College level reading and MATH 0098). (3 C/3 lect, 0 lab).

BUS 2290   Business Topics
This course is designed to help familiarize the student with the current practices and trends in business and marketing through a series of guest lectures, field trips and computerized business games. (Prerequisites: College level reading and writing). (1-4 C/1-4 lect).

BUS 2296   Business Internship
Work experience program designed to help business students apply classroom information on the job. Designed to make the work experience a learning experience so that the student will be able to better understand the practical application of business techniques. (Prerequisites: None). (2-4 C/0 lect, 2-4 OJT).

BUS 2317   Principles of Business Analysis I
This course focuses on the foundations of business analysis and how it fits within projects and organizations. Topics analyzed within this course are the history of business analysis, business analysts' roles and activities, interpersonal skills, stakeholders and stakeholder relationships, and business analyst competencies. Recommended entry skills/knowledge: College level reading, writing, math and problem-solving. (Prerequisites: None). (3 C).

BUS 2318   Principles of Business Analysis II
This is the second course in the Business Analysis sequence. Knowledge areas of Elicitation, Requirements Analysis, Requirements Management and Communication will be presented. Tasks, techniques and tools used within Elicitation, Requirements Analysis, Requirements Management and Requirements Communication will be analyzed and applied in accordance with the International Institute for Business Analysis (IIBA). (Prerequisites: BUS 2317). (3 C).

BUS 2319   Principles of Business Analysis III
This is the third course in the Business Analysis sequence. This course focuses on the way organizations leverage the business analysis role. The course will present the concepts of Enterprise Analysis, Planning & Monitoring and Solution Assessment & Validation. Analysis of the tasks, techniques and tools used within each of these topics will be conducted. This course will also focus on Business Architecture and development of Business Analysis competencies within an organization. Terms and procedures in this course are consistent with International Institute of Business Analysis (IIBA). (Prerequisites: BUS 2318). (3 C).

COMPUTER AIDED DRAFTING

CAD 1039   3D CAD
This course offers students the understanding of 3D parametric solid modeling using SolidWorks. It also addresses the concepts of parametric design, design intent, and the necessary commands to carry out these functions. Items covered will be construction of 3D solid modeling parts, assemblies, and creating 2D automated drawings. Learning by example: students will design real world products with SolidWorks. (Prerequisites: RECTC CAD major or instructors permission; Co-requisite: CAD 1230 runs concurrent). (4 C/1 lect, 3 lab).

CAD 1050   Introduction to SolidWorks for Manufacturing
This course offers students a basic understanding of 3D parametric solid modeling using SolidWorks. It covers basic construction of 3D solid modeling parts, assemblies, and importing/exporting files. Students lean by example in a state of the art CAD lab using the latest version of SolidWorks. (Prerequisites: Instructor permission. Co-requisites: CAD 1230). (3 C).

CAD 1100   Introduction to SolidWorks
The course offers students the basic understanding of 3D parametric solid modeling using SolidWorks. The class is appropriate for design and manufacturing professionals as well as individuals in other disciplines who require a basic introduction to SolidWorks. Students attending this course should have experience in mechanical design. Students will become familiar with basic terminology and concepts used in parametric solid modeling. Upon completion of the class, each student will be able to create a basic 3D solid model utilizing feature-based creation and editing tools, bottom-up assembly modeling techniques, and 2D drawings that are fully dimensioned and parametric. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1230). (2 C/1 lect, 1 lab).

CAD 1120   Welding Technology
This course is designed to teach the welding symbols and their applications. Basic CAD drafting skills are incorporated into making complete weldment drawings. The students will create and identify welding symbols, and learn to apply them in a variety of drawing situations which are found in industry. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of Solidworks. (Prerequisites: CAD 1050, CAD 1230, CAD 1234, CAD 1235). (2 C/1 lect, 2 lab).

CAD 1123   Technical Illustration
This course will cover the techniques used for generating pictorial drawings using CAD. The student will become familiar with a variety of applications in which pictorial drawings produced within a CAD program are used to illustrate technical information outside of CAD. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of Solidworks. (Prerequisites: CAD 1050, CAD 1220, CAD 1221, CAD 1222, CAD 1230, and 1234). (2 C/1 lect, 2 lab).

CAD 1124   Architectural Drafting
The student will study both AutoCAD in the construction industry and basic building technologies. The course focuses on construction document production using AutoCAD Architectural Desktop, an overview of Building Code compliance, and an introduction to construction materials and technologies. Students will have the option of developing a residential design or light commercial project. All CAD courses will be taught in a state-of-art-facility featuring the latest release of AutoCAD. (Prerequisites: CAD 1230, CAD 1234 with grade of B or better, and enrolled in CAD 1235). (3 C/1 lect, 2 lab).

CAD 1129   Introduction to Mastercam
This course provides the related occupation students with the fundamentals of computer and engineering drawing. CAD of the Master CAM software will be used to draw parts, dimension parts and to prepare the student for the next step, CAM. (Prerequisites: CAD 1234). (2 C/1 lect, 2 lab, 0 OJT).

CAD 1145   Manufacturing Materials and Processes I
This course will give the student a firm foundation in shop safety, blue print reading, the use and care of measuring instruments and various other hand tools used in the machining field. The student will also learn about the operation of vertical milling machines, engine lathes, cut-off saws, and other machine shop equipment. They will also be introduced to product assembly and fastening technology fundamentals. This will be taught with emphasis placed on the gaining hands- on experience. This course will be beneficial to students in the CAD Technology program as well as mechanical engineering and other design related fields. (Prerequisites: None). (3 C/1 lect, 2 lab).

CAD 1147   Manufacturing Materials and Processes II
This course is designed to provide detailed knowledge of materials and processes used in the manufacturing of products, machines, and structures. The course is laid out in a lecture/lab format broken into units including casting and molding, forming, separating, conditioning and assembly techniques. Tours of the machining/drafting industry will be an integral part of this class. Upon completion of this course, students should have a working knowledge of common materials and manufacturing activities that are used to create products from their designs. This knowledge will further enhance the students¿ ability to design manufacturable

products. (Prerequisites: None). (3 C/1 lect, 2 lab).

CAD 1150   CAD Data Communication
This course offers students the capability of integrating CAD data with MS Office products and graphics programs to create projects in a ¿hands on¿ environment. Students will create projects using the CAD prototype shop - learning to operate the laser, rapid prototype machine, CNC router and Acrylic bender. These skills will make CAD majors more productive in the workplace. All CAD courses will be taught in a state-of-the-art facility. (Prerequisites: CAD 1039, CAD 1230). (3 C/1 lect, 2 lab).

CAD 1200   Product Data Management
The course offers students the understanding of Product Data Management (PDM) within SolidWorks. Students will use the data vault of Workgroup PDM to provide file security, complete data searches, and learn to check items in and out of a vault within a team environment. (Prerequisites: CAD 1039). (1 C/0 lect, 1 lab).

CAD 1220   Engineering Drafting
This course is a basic class in engineering drafting which is designed to provide working knowledge of the industry's graphic language and detailed drawing using SolidWork. Geometric construction, projections drawing theory, the multiview system, auxiliary and section views, and projections will be covered. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: None; Co-requisites: CAD 1230, 1234). (3 C/1 lect, 4 lab).

CAD 1221   Technical Drafting
This course introduces several topics in technical drafting including the use of freehand and electronic sketches along with the creation of detailed drawings in CADs. Projection drawing theory, the multiview system, auxiliary views, and drawing revision processes will be covered. The concept of reverse engineering is explored and involves learning the proper use of a caliper. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: None; Co-requisites: CAD 1220, 1230, 1234). (3 C/1 lect, 4 lab).

CAD 1222   Dimensioning and Tolerancing
This course provides an introduction to the fundamentals of dimensioning and tolerancing of engineering drawings. The student will become familiar with basic dimensioning standards and conventions and learn to apply them to drawings. The proper use of a variety of tolerancing techniques will be practiced including both conventional and geometric tolerancing. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: None. Co-requisites: CAD 1220, CAD 1230, CAD 1234). (2 C/1 lect, 2 lab).

CAD 1223   Technical Drafting I
This course is a basic class in technical drafting which is designated to provide a working knowledge and skills involving several fundamental drafting concepts including the use of freehand and electronic sketches along with the creating of detailed drawings in CAD. Projection drawing theory, the multiview system, auxiliary and section views, dimensioning and basic projection will be covered. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of AutoCAD or SolidWorks. (Prerequisites: None. Co-requisites: CAD 1230, CAD 1234, CAD 1224). (2 C/1 lect, 1 lab).

CAD 1224   Engineering Drafting I
This course is a basic class in engineering drafting which is designed to provide working knowledge of the industry's graphic language, as well as fundamental skills of freehand sketching and detailed drawing using AutoCAD. Geometric construction, projections drawing theory, the multiview system, auxiliary and section views, and projections will be covered. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of AutoCAD. (Prerequisites: CAD 1230, 1234). (2 C/1 lect, 4 lab).

CAD 1225   Engineering Drafting II
This course is a continuation of CAD 1224. It is focused upon the application of drawing theory and the principles of industrial drafting practices in the mechanical field. This course allows the students to develop better skills and to improve their speed when creating and detailing working drawings. It also will expose the students to several advanced engineering drafting topics including an introduction to geometric dimensioning and tolerancing. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of AutoCAD. (Prerequisites: CAD 1224, 1230, and 1234). (2 C/1 lect, 4 lab).

CAD 1229   Technical Drafting II
This course is a continuation of CAD 1223. It is focused on the use of CAD in support of engineering projects. In addition to developing new skills for creating and detailing working drawings, students will gain an introduction to common fasteners and how CAD is used with assemblies and as part of a development project. The concept of reverse engineering is introduced and involves learning the proper use of a caliper. The latest version of AutoCAD will be used for all drawing activities. (Prerequisites: CAD 1223. Co-requisites: CAD 1225). (2 C/1 lect, 2 lab).

CAD 1230   CAD Data Management
This class is concurrent with CAD 1234 and runs the first few weeks of the semester. The course is designed to give greater depth into CAD file management by using and understanding the latest Windows operating system. (Prerequisites: None). (1 C/1 lect, 0

lab).

CAD 1234   CAD I
This is an instructor led basic training course for new AutoCAD users. The course shows how to use AutoCAD to set up drawings, use basic drawing and editing tools, add text and dimensions. Students will use AutoCAD's design center to obtain information about their drawings and work with drawing files. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of 2D CAD or SolidWorks. (Prerequisites: CAD 1230). (3 C).

CAD 1235   Cad II (Computer-Aided Drafting II)
A continuation of CAD 1234, this hands-on class strives to make the student more proficient using AutoCAD. Major topics of instruction will include: advanced drawing commands, using isoplane and elevation practices, blocks and attributes, sectional views, external references, multiview layouts, usage of autolisp macros, customization tools, and an introduction to three-dimensional drawings. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of AutoCAD. (Prerequisites: CAD 1230, 1234). (3 C).

CAD 1323   Basic Dimensioning
This course is designed to teach basic machine dimensioning using various drafting standards. Students will be introduced to dimensioning multiview drawings and assemblies using several different dimensioning methods including ordinate, baseline, continuous, geometric tolerancing and dual dimensioning. Students will also learn how to implement drawing revisions and be introduced to the concept of flat pattern design. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1230, CAD 1234, CAD 1050, CAD 1220, CAD 1221, CAD 1222). (3 C/1 lect, 4 lab).

CAD 2000   Introduction to SolidCam
This course teaches SolidCam integrated with SolidWorks, and all machining operations can be defined, calculated and verified without leaving the parametric SolidWorks assembly environment. (Prerequisites: CAD 1050, CAD 1230 or instructor permission). (3 C).

CAD 2323   Advanced Dimensioning
The course is designed to meet different drafting standards such as ANSI, 150, MIL or our own school standards. Tolerancing methods and duel dimensioning will be covered as well as geometric tolerancing symbols and standards. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1225, 1229, 1230, 1234, 1235, 1323, and 2339). (3 C/1 lect, 2 lab, 0 OJT).

CAD 2324   Special Projects I
In this course students will select an area of interest and specialize in advanced drafting work to reinforce skills and knowledge gained during the first year or a new area that was not covered in the regular program course offerings. Projects will be selected with approval of instructor. A contract will be written on required work. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: Must be a second year CAD student). (2 C/0 lect, 2 lab).

CAD 2335   Working Drawing and Design
This course combined all facets of the first year classes into individual and team projects. More attention is given to geometric tolerancing, fits and detailing practices, and the assembly of parts. Students will have the opportunity to use CAD and design group projects. (Prerequisites: CAD 2339). (3 C/1 lect, 4 lab, 0 OJT).

CAD 2358   Machine Design
This course covers mechanisms used to transmit rotary motion and power. Content will include design information about gears, belts, pulleys, and chain drives. Students will design power transmission projects beginning with ideas then producing layout, detail, and assembly drawings. Students work in small groups similar to industrial practices. They will learn to use vendor's information from the Internet, assign part numbers, and generate bills of materials. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisite: CAD 1230, 1234, 1235, 1224, 1225, and runs concurrent with CAD 2339). (5 C).

CAD 2400   Reverse Engineering and Rapid Prototyping
This course will teach students how to reverse engineer parts using a digitizer, probe, and NextEngine laser scanner then recreate prototypes using a 3D printer and other CNC operations. (Prerequisites: None. Co-Requisites: CAD 1050, CAD 2339 or instructor permission). (2 C/1 lect/1 lab).

CAD 2423   Hydraulic/Pneumatic Drafting
In this course students will cover the theory of fluid and pneumatic power circuits. They will learn standard symbols and system components. Students will have an opportunity to design and make schematic drawings of basic power circuits. Piping will also be studied. (Prerequisites: CAD 1230, 1234, 1235, 2339). (2 C/1 lect, 2 lab, 0 OJT).

CAD 2424   Special Projects II

In this course students will select an area of interest and specialize in advanced drafting work to reinforce skills and knowledge gained during the first year or a new area that was not covered in the regular program course offerings. Projects will be selected with approval of instructor. A contract will be written on required work. All CAD courses will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: Second year CAD student). (2 C/0 lect, 2 lab).

CAD 2430   Special Fields in Drafting
This course offers CAD students the opportunity to study special fields of drafting. Students will create hands on projects such as signage, props, vehicle wraps among other creative designs. Students will use CAD to design the projects. (Prerequisites: CAD 1039, CAD 1150). (2 C/1 lect, 1 lab).

CAD 2435   Mechanics
This course is designed to develop the ability to analyze problems and solve them using basic principles. Areas of forces, work and energy, motion as well as fluids, temperatures and sound will be covered. Basic principles of electricity and light and their applications are also covered. (Prerequisites: MATH 1031). (3 C/1 lect, 4 lab, 0 OJT).

CAD 2439   Hvac Drafting
Drafting as it pertains to the heating, ventilation, and air conditioning industry. (Prerequisites: CAD 1230, 1234, and 1235). (3 C/1 lect, 4 lab).

CAD 2440   CAD Portfolio
Students attending this course should have experience using SolidWorks. Students will create photorealistic renderings, motion analysis of 3D models, animations, and eDrawings. Each student will create an electronic portfolio of their projects for use in interviews. (Prerequisites: CAD 1039). (2 C/1 lect, 1 lab).

CAD 2458   Product Design
Students will learn design concepts, how to design parts, and investigate alternative design solutions. Students will then prepare a complete graphic display of solutions including an assembly drawing, details, manufacturing processes required and tooling specifications. Students will learn to calculate sheet metal bend allowance and apply those dimensions to flat layouts. Plastic mold processes will be explored. Each student will design an injection mold cavity. The class will provide a typical mechanical design experience as a member of an industrial design team. Learning by example: students design real world products using the latest release of SolidWorks. (Prerequisites: CAD 1225, 1230, 1234, 2339). (5 C).

CAD 2460   Surfacing and Advanced Modeling
This course offers students the understanding of surface modeling using SolidWorks. It also addresses the concepts of parametric design. Learning by example: students will design real world products with SolidWorks. (Prerequisites: CAD 1039). (3 C/1 lect, 2 lab).

CAREER ORIENTATION

CAOR 0500   RCTC Extended Orientation
RCTC Extended Orientation is intended for newly admitted students who are seeking a more extensive orientation experience. This session will include strategies for successful enrollment, as well as assistance with accessing learning support services, financial aid, and technology.

CAOR 0900   RCTC New Student Welcome Day
The RCTC New Student Welcome Day is intended for newly admitted students. This is an experience where new students will find their classes, discover support service locations, participate in on-campus events, and meet other new students.

CAOR 1101   Career & Lifestyle Planning
Students will determine interests, skills, values and career life goals by use of standardized assessments, computer software and self evaluation. Explore which occupations fit with anticipated life styles and evaluate occupational trends. Arrange for and carry out informal interviews in the area of occupational choice. Brief review of resume writing and interviewing skills. Use of the internet to search for careers. (Prerequisites: College level reading and writing skills or consent of instructor). (2 C/2 lect).

CAOR 1103   Career Exploration Seminar
This course is designed to assist students in setting educational and occupational goals through assessment of interests, values, skills, and preferences; learning about the world of work; and learning to use career resources. Recommended entry skills/knowledge: college level reading and writing skills; keyboarding skills and computer literacy. (Prerequisites: College level reading and writing skills or consent of instructor). (1 C/1 lect).

CHILD DEVELOPMENT

CD 1001   Seeing Children and Youth
This course introduces the subject of children and youth with a focus on young people in everyday life. Students will watch, read about, wonder about, describe and analyze, and look up information about children and youth. Exploration of career opportunities, roles, and responsibilities working with and on behalf of children and youth is also included. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 2 lab).

CD 1210   Child Growth and Youth Development
This course provides an overview of typical and atypical child development across cultures, from prenatal through adolescence. Physical, social, emotional, language, cognitive, aesthetic, and identity/individual development will be explored. Integrating developmental theory with appropriate practices in a variety of early childhood care and education settings will be emphasized. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 2 lab).

CD 1212   Topics in Child Development
This course examines a particular area of child and adolescent development with an emphasis on recent research, new theories and emerging practice. Focus is on a specific topic with attention to how it applies to current social issues and promoting the healthy development of children, youth, and families in community settings. (Prerequisites: None). (1-3 C/1-3 lect, 0 lab).

CD 1220   Child Safety, Health and Nutrition
This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include illness and accident prevention, emergencies, children's basic nutritional needs, and child abuse/neglect prevention and intervention. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/3 lect, 1 lab, 0 OJT).

CD 1232   Guidance and Group Dynamics
This course introduces concepts, principles and strategies for building supportive relationships with children and youth in order to enhance learning, development, and well-being. Focus is on recognizing individual needs, establishing positive expectations, motivating and engaging, managing groups, preventing difficult behavior, positive guidance methods, and responding effectively to difficult behavior. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 1 lab).

CD 1235   Learning and Environments
This course presents an overview of knowledge and skills related to providing appropriate environments for young children from birth to age 9. Students will examine the teacher's role in supporting development and fostering the joy of learning for all young children emphasizing the essential role of play. An overview of planning activities and teaching through group time, small groups, interest center, will be included. (Prerequisites: Appropriate score on RCTC placement test for READ 0840 and ENGL 0980). (3 C/2 lect/1 lab).

CD 1310   Infant/Toddler Principles and Practices
This course provides an overview of infant/toddler development and the central concepts, methods, and content areas in provide appropriate environments that support learning in each content area for all children. Designing, implementing, and evaluating meaningful, challenging curriculum requires alignment with appropriate early learning standards and knowledgeable use of the discipline's resources to focus on key experiences for each age group and each individual child.(Prerequisites: Appropriate test placement score into ENGL 1117, CD 1210 or instructor permission). (4 C/3 lect, 1 lab, 0 OJT).

CD 1312   Preschool Principles and Practices
This course provides an examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions. Students will examine the teacher's role in supporting development and fostering learning for preschool-age children. An overview of content areas will include but not be limited to: language and literacy, social and emotional learning, sensory learning, math and science, and art and creativity. (Prerequisites: Test into ENGL 1117, CD 1210 or instructor permission). (4 C/3 lect/1 lab).

CD 1314   School-Age Principles and Practices
This course provides an examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions. Students will examine the teacher's role in supporting development and fostering learning for school-age children. An overview of content areas will include but not be limited to: language and literacy, social and emotional learning, sensory learning, math and science, and art and creativity. (Prerequisites: Appropriate score on RCTC placement test for ENGL 1117. CD 1210 or instructor permission). (4 C/3 lect, 1 lab).

CD 1320   Observing and Assessing
This course examines the appropriate use of assessment and observation strategies to document development, growth, and

learning in order to promote children the success of children and youth and maintain a quality program. Recording strategies, rating systems, portfolios, and multiple assessment methods will be explored. (Prerequisites: CD 1210 or instructor permission). (3 C/2 lect, 1 lab).

CD 1510   Balancing Work and Family

This course focuses on the dual demands that impact employed parents as they manage both work and family expectations. Topics include personal and parent growth, family communication and development, child development characteristics, and managing children's behavior. Time management strategies for busy families will be emphasized. (Prerequisites: None). (1 C/1 lect, 0 lab, 0 OJT).

CD 2002   Introduction to Youth Work

This course introduces the foundations and theories of positive youth development that are critical to how professional youth workers think about and work with young people. Theoretical foundations include the eight basic youth needs, ecological context, assets and resiliency, and experiential learning. Students will examine the impact of barriers to youth participation, explore approaches to build relationships with young people and learn how to engage the community on behalf of youth. This class provides a strong foundation for professionalism and ethical practice as well as critical thinking and analysis with respect to youth work and positive youth development. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 2 lab).

CD 2101   Child and Youth Issues

This course explores what it means to be a child and an adolescent in the in the context of neighborhoods, schools, communities, and geographic urban or rural settings. Students will examine children and youth Issues such as social class, race/ethnicity, language, religion, sexual orientation, gender, disability, substance abuse, community violence in order to develop awareness, understanding, and practical skills needed to work with children and youth from diverse backgrounds. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (4 C/3 lect, 1 lab).

CD 2105   Child and Youth Issues

This course explores what it means to be a child and an adolescent in the in the context of neighborhoods, schools, communities, and geographic urban or rural settings. Students will examine children and youth Issues such as social class, race/ethnicity, language, religion, sexual orientation, gender, disability, substance abuse, community violence in order to develop awareness, understanding, and practical skills needed to work with children and youth from diverse backgrounds. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/3 lect, 0 lab).

CD 2241   Experiential Learning

This course provided an introduction to the history and theory of experiential learning and its application in youth work. Students observe, plan, implement, reflect on, and evaluate meaningful learning in a variety of settings. Requires 32 hours of field experience with youth. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (4 C/3 lect, 1 lab).

CD 2540   Supporting Children's Mental Health

This course helps teachers, caregivers, and parents develop the knowledge, attitudes, and skills to increase their capacity to provide therapeutic care and intervention in the context of the child's everyday experience. The contributing factors toward children's mental illness, techniques for recognizing and documenting challenging behaviors, and responding to psychological disorders in children will be examined. (Prerequisites: None). (3 C/3 lect, 0 lab).

CD 2570   Multicultural Learning Experiences

This course provides an overview of multicultural and anti-bias learning experiences in center-based and home settings. Students will integrate knowledge of child development, learning environments, and teaching methods to promote and enhance multiculturalism and anti-bias in childcare and educational settings. (Prerequisites: None). (3 C/2 lect, 1 lab, 0 OJT).

CD 2580   Creative Development Experiences

This course provides an overview of creative/aesthetic learning experiences in center-based and home settings. Students will develop a visual, creative development portfolio with examples of over 100 creative experiences appropriate for children from 1-12 years of age. Great artists, children's book illustrators, multi-cultural art processes, and creative dramatic play will also be explored. (Prerequisites: None). (3 C/2 lect, 1 lab, 0 OJT).

CD 2600   Professional Leadership

This course prepares students to take active leadership and advocacy roles in the child development profession through examining and applying the NAEYC Code of Ethical Conduct and Statement of Commitment to case studies, developing and delivering effective early childhood in-service presentations, and constructing child/family advocacy displays. (Prerequisites: ENGL 1117 and 15 CD credits or instructor permission). (3 C/3 lect, 0 lab).

CD 2630   Children and Youth with Special Needs

This course examines issues related to educating children and adolescents with special needs in a variety of settings. The following topics will be addressed: knowledge of, and sensitivity toward individuals with disabilities, identification of special needs and mental health concerns; methods used to modify the curriculum and accommodate various learning styles; and involving parents and collaborating with others to meet children needs. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980. CD 1210 or instructor permission). (3 C/2 lect, 1 lab).

CD 2640   Curriculum Planning
This course provides an advanced level exploration of program curriculum planning. Emphasis is on organizing, implementing, and evaluating a developmentally appropriate, culturally responsive, and inclusive curriculum. State approved curriculum will be explored, with special emphasis on The Project Approach and Reggio Emilia. (Prerequisites: ENGL 1117 and 15 CD credits or instructor permission). (3 C/3 lect, 0 lab).

CD 2810   Practicum I
This course provides an opportunity to apply knowledge and skills in early childhood or school age setting, including licensed family childcare. Students will plan and implement a variety of learning experiences that are developmentally appropriate for and culturally sensitive to a specific age and group of children. Requires criminal background check and 144 hours with children in an instructor approved setting. (Prerequisites: CD 1230 and 12 credits in CD or instructor permission). (3 C/0 lect, 0 lab, 3 OJT).

CD 2840   Practicum II
This course provides and opportunity to apply knowledge and skills in program planning for early childhood/special education leadership roles. Students identify, design, implement, and analyze a comprehensive program that includes schedules, daily plans, sensitivity to needs of individual children and families, integration of children with special needs, integration of community resources, co-operation with co-workers, and staff development considerations. Requires criminal background check and 144 hours with children in an instructor approved setting. (Prerequisites: CD 1230 and 12 credits in child development or instructor permission). (3 C/0 lect, 0 lab, 3 OJT).

CHEMISTRY

CHEM 1100   Chemistry & Our World
This is an introductory lecture/laboratory course for non-science majors that investigates the world of chemistry, the nature of matter and our everyday interactions with chemicals. Elementary concepts of chemistry will be introduced as they relate to economic, political, environmental and social issues. Through this unique approach to studying chemistry, students will use critical-thinking skills to access the impact of chemicals in the modern world. It is recommended that students have 12th grade reading and writing skills. (Prerequisites: None). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.

CHEM 1101   Elements of Chemistry
This is an introductory study of the principles of chemistry. The course introduces the student to the basic chemical terminology, rules for properly handling numeric values and measurements, proper methods for making and recording laboratory measurements from a variety of scales and the interrelationships between laboratory data, theories and chemical laws are explored. The student is expected to solve basic problems involving elementary algebra and a variety of chemical laws and relations. This course is primarily intended as preparation for higher level chemistry courses or to update an outdated background. (Prerequisites: MATH 0098 or equivalent). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

CHEM 1116   Brief Introduction to Organic Chemistry
This course is only intended for students that need a unit on organic chemistry to earn equivalency to CHEM 1117, General, Organic and Biological Chemistry. This course is a brief introduction to functional groups, their nomenclature and physical and chemical properties. (Prerequisites: instructor permission). (1 C).

CHEM 1117   General, Organic and Biological Chemistry I
This course includes discussion of measurements and conversions within the English and System International, chemical bonding and some chemical properties of atoms, compounds and ions. Mole concepts, stoichiometry, periodicity, kinetic molecular theory, gas laws, solutions equilibrium, acid-base chemistry and pH, are covered plus brief discussion on organic chemistry. (Prerequisites: MATH 0098 or equivalent; high school chemistry or CHEM 1101 or equivalent; college level reading and writing). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

CHEM 1118   General, Organic and Biological Chemistry II
This course consists of a general introduction to organic and biological chemistry. The structure and reactivity of carbohydrates, lipids, proteins and nucleic acids will be described, and then the cellular metabolism of these compounds will be covered. Also discussed will be digestion, acid-base balance, and fluid and electrolyte regulation. The laboratory work consists of experiments designed to illustrate the topics covered in lecture.(Prerequisites: CHEM 1117 and one of the following: BIOL 1110, BIOL 1217, or BIOL 1220). (4 C/3 lect, 2 lab).

CHEM 1119   Biochemistry

This course is intended for students that need an introductory biochemistry course without a laboratory component. The structure and reactivity of carbohydrates, lipids, proteins and nucleic acids will be described, and then the cellular metabolism of these compounds will be covered. Also discussed will be digestion, acid-base balance, and fluid and electrolyte regulation. (Prerequisites: CHEM 2100 or CHEM 1117 and one of the following: BIOL 1110, BIOL 1217, or BIOL 1220). (3 C/3 lect, 0 lab).

CHEM 1127   Chemical Principles I

This is the first semester of an in-depth study of general chemistry. Topics cover basic terminology and chemical principles pertaining to the areas of measurements, atomic theory, nomenclature, reactions, chemical calculations, solids/liquids/gases, thermochemistry, quantum theory, periodicity, bonding, and molecular geometry. (Prerequisites: CHEM 1101 or equivalent, or high school chemistry with at least a grade of C. MATH 0099 or equivalent). (4 C/3 lect, 3 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

CHEM 1128   Chemical Principles II

This course is the second semester of an in-depth study of general chemistry. Topics cover basic terminology and chemical principles pertaining to the areas of basic organic chemistry, solutions, reaction kinetics, gaseous and solution equilibria, acid-base chemistry, solubility products, thermodynamics, oxidation-reduction reactions and nuclear chemistry. (Prerequisites: CHEM 1127 or equivalent). (4 C/3 lect, 3 lab).

CHEM 1129   General Chemistry II

The second semester of a two-semester study of general chemistry for the science major covering basic terminology, chemical principles and laws pertaining to the areas of basic thermodynamics, reaction kinetics, gaseous and solution equilibria, acid-base chemistry, solubility products and oxidation-reduction reactions. (Prerequisites: CHEM 1127 or equivalent, College Algebra highly recommended). (3 C/3 lect, 0 lab).

CHEM 2100   Survey of Organic Chemistry

This course is for all students interested in a semester survey of organic chemistry. Students will get an overview of atoms, molecules, structures, bonding, nomenclature. Functional groups to be covered include hydrocarbons, alcohols, ethers, amines, carbonyl compounds and their derivatives. Recommended entry skills/knowledge: College level reading and writing skills and working knowledge of intermediate algebra. (Prerequisites: CHEM 1117 or Mayo MLT or CHEM 1127 and CHEM 1128). (4 C/4 lect, 0 lab).

CHEM 2127   Organic Chemistry I

This course is a thorough overview of atoms, molecules, structures and bonding in organic chemistry. Reactions of organic compounds as acids and bases as well as nucleophiles and electrophiles are covered. Stereoisomerism and simple synthesis of organic compounds are presented. Functional groups and biomolecules of interest are introduced and their reactivity studied. Nucleophilic substitution and elimination reactions complete the course. (Prerequisites: CHEM 1128 or Co-Requisite: CHEM 1128 with instructor permission). (4 C/3 lect, 1 lab).

CHEM 2128   Organic Chemistry II

This course is a continued introduction to functional groups and biomolecules of interest. An introduction to carbonyl compounds and addition reactions of electrophilic carbon atoms is presented. Nucleophilic substitution reactions of carboxylic acids and their derivatives is presented. Alkylation and condensation reactions are covered. An introduction to theory and interpretation of mass spectroscopy, IR and NMR is presented. Reactions of enolate ions and amines are presented. A thorough introduction to organic synthesis is covered. (Prerequisites: CHEM 2127). (4 C/3 lect, 1 lab).

CHEM 2297   Chemistry Research I

This course is designed to give students a hands-on introduction to Chemistry research. Students will conduct independent research under the close supervision of a faculty advisor. The type of research will be determined by the faculty advisor and student. (Prerequisite: Permission of instructor, CHEM 1127 (or co-requisite). (1 C).

CHEM 2298   Chemistry Research II

This course is designed to give students a hands-on introduction to Chemistry research. Students will conduct independent research under the close supervision of a faculty advisor. The type of research will be determined by the faculty advisor and student. (Prerequisite: CHEM 2297). (1 C).

CHINESE

CHIN 1001   Introduction to Chinese Culture

This course is designed to enable students to gain a better understanding of the influence of traditional Chinese culture on the formation of contemporary China. The approach is interdisciplinary and comparative. The course includes history, geography,

language and literature, visual and performing arts, philosophy/religion, society/family/marriage, science/technology/medicine and political/economical impact. Films (including videos) and other multimedia materials are used in conjunction with lectures and class discussion. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

CHIN 1101   Beginning Chinese I
An introduction to the fundamentals of Mandarin Chinese, including the phonetic symbol system (pinyin), speaking, reading, writing in a cultural context. Conversation, audio and video materials, short readings, computer work, field trips, and extensive exploration of cultural topics are all a part of this course. For students with very little or no previous experience with the Chinese language. (Prerequisites: None). (4 C). MNTC: Goal 8/Global Perspectives.

CHIN 1102   Beginning Chinese II
This course is a continuation of CHIN 1101. It is designed to continue the students with grammatical structures and vocabulary appropriate for beginning learners. Instruction focuses on expansion of all four skills (speaking, listening, reading, and writing skills within a cultural context. By the end of semester, students are expected to be able to conduct a basic conversation, read simple texts or conversations, write about 270 Chinese characters, recognize about 330 characters and write some correct sentences in Chinese and demonstrate knowledge of Chinese culture. Recommended Entry Skills/Knowledge: Knowledge of the Chinese phonetic symbol system (pinyin and tones), numbers 1-10, ability to converse, read, write about basic greetings, family, dates, time, hobbies and visiting friends. Student should be able to write about 130 Chinese characters and recognize 160 characters. (Prerequisites: CHIN 1101 or equivalent). (4 C). MNTC: Goal 8/Global Perspectives.

CHIN 2101   Intermediate Chinese I
Offers advanced beginning training in standard Mandarin Chinese language skills of listening comprehension, speaking, reading, and writing. Emphasis is on understanding Chinese grammar and syntax as well as the unique cultural, social, religious, political, economical, and linguistic differences of China and how they influence the relations of states and societies in their historical and contemporary dimensions. Wide range of readings, writing and translation exercises, and the use of dictionary, audio/visual materials, and Chinese-language software are essential parts of this course. Specific goals include recognizing 500 Chinese characters writing 400 of them. (Prerequisites: CHIN 1102). (4 C). MNTC: Goal 2/CT, Goal 8/Global Perspectives.

CHIN 2102   Intermediate Chinese II
Continue advanced beginning training in standard Mandarin Chinese language skills of listening comprehension, speaking, reading, and writing,. Emphasis is on understanding Chinese grammar and syntax as well as the unique cultural, social, religious, political, economical, and linguistic differences of China and how they influence the relations of states and societies in their historical and contemporary dimensions. Wide range of readings, writing and translation exercises, and the use of dictionary, audio/visual materials, and Chinese-language software are essential parts of course. Specific goals include recognizing 700 Chinese characters writing 550 of them. (Prerequisite: CHIN 2101). (4 C). MNTC: Goal 2/CT, Goal 8/Global Perspectives.

ENHANCED COMMUNITY HEALTH WORKER

CHW 1000   Community Health Worker: Role, Advocacy, and Outreach
This course will provide the introduction and foundation for the Community Health Worker. The course focuses on the Community Health Worker's personal safety, self care and personal wellness and on the promotion of health and disease prevention for clients. This course will allow the diverse student an entry level opportunity to act as a culture broker between their own community and the systems of care. (Prerequisites: Appropriate RCTC test score for placement in READ 0900). (2 C).

CHW 1010   Community Health Worker: Communication Skills and Cultural Competence
This course provides the content and skills in communication to assist the Community Health Worker in effectively interacting with a variety of clients, their families and a range of healthcare providers. You will learn about communicating verbally and non-verbally, listening and interviewing, networking, building trust and working in teams. You will practice communication skills in the context of a community¿s culture and the cultural implications that can affect client communication. (Prerequisites: Appropriate RCTC test score for placement in READ 0900). (2 C).

CHW 1020   Community Health Worker: Role in Teaching and Capacity Building
This course focuses on the Community Health Worker¿s role in teaching and increasing the capacity of the community and of the client to access the health care system. Emphasis is on establishing healthy lifestyles and clients developing agreements to take responsibility for achieving health goals. You will learn about and practice methods for planning, developing and implementing plans with clients to promote wellness. (Prerequisites: Appropriate RCTC test score for placement in READ 0900). (2 C).

CHW 1030   Community Health Worker: Community and Personal Strategies
This course focuses on the application of the CHW¿s knowledge of the community and the ability to prioritize and organize work. Emphasis is on the use and critical analysis of resources and on problem solving. (Prerequisites: Appropriate RCTC test score for placement in READ 0900). (1 C).

CHW 1040 Community Health Worker: Coordination, Documentation, and Reporting

This course focuses on the importance and ability of the CHW to gather, document and report on client visits and other activities. The emphasis is on appropriate, accurate and clear documentation with consideration of legal and agency requirements. (Prerequisites: Appropriate RCTC test score for placement in READ 0900). (1 C).

CHW 1050 Community Health Worker: Legal and Ethical Responsibilities

This course focuses on the legal and ethical dimensions of the Community Health Worker¿s role. You will study the boundaries of the Community Health Worker position, agency policies, confidentiality, liability, mandatory reporting and cultural issues that can influence legal and ethical responsibilities. (Prerequisites: Appropriate RCTC test score for placement in READ 0900). (1 C).

CHW 1055 Community Health Worker: Role Health Promotion Competencies

This course focuses on the knowledge and skills a CHW needs to assist clients in realizing healthy eating patterns, controlling their weight, integrating exercise into their lives, taking their medications, talking with their doctors, controlling substances such as tobacco, managing stress, achieving life balance, and attaining personal and family wellness. Emphasis will be on learning strategies that can be used to aid in client awareness, their education and incorporation of health into their daily living. This course also provides information and activities in which the CHW can assimilate these concepts into their own lives. (Prerequisites: Placement in READ 0900; Co-Requisites: CHW 1000, CHW 1010, CHW 1020, CHW 1030, CHW 1040, CHW 1050, CHW 1060). (3 C).

CHW 1060 Community Health Worker: Internship

This course focuses on the application of the Community Health Worker¿s knowledge of the community and the ability to prioritize work. Emphasis is on the use and critical analysis of resources and on problem solving. Curing this internship, the CHW student must work 96 hours with one of the clinical agencies. (Prerequisite: Appropriate RCTC test score for placement in READ 0900; Co-requisites: CHW 1000, CHW 1010, CHW 1020, CHW 1030, CHW 1040, CHW 1050, CHW 1055). (1 C).

COMMUNICATION STUDIES

COMM 1114 Fundamentals of Public Speaking

Speech 1114 focuses on the theory and practice of oral communication skills which affect critical thinking in public speaking situations. An emphasis is placed upon research, organization and delivery. Course topics may include: clearly organizing a speech in compliance with the speech's objective; understanding various organizational patterns; executing competent vocal and physical delivery skills; and effectively using visual aids (including computer generated slide presentations, e.g. PowerPoint). (Prerequisites: College level reading/writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 1/Oral Communication, Goal 2/Critical Thinking.

COMM 1125 Oral Interpretation

Theory and practice in oral presentations with an emphasis on selection, cultural significance and study in individual and group readings from the world's literature. (Prerequisites: SPCH 1114). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

COMM 1130 Interpersonal Communication

Focus is on the theory and practice of communication skills which affect critical thinking, intercultural consciousness, empowerment, and day-to-day interaction with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 1/Oral and Written Communication, Goal 2/Critical Thinking, Goal 7/Human Diversity.

COMM 2100 Intercultural Communication

Intercultural Communication focuses on the theory and practice of intercultural communication. The course material will increase the student's knowledge of different cultures and improve their day-to-day interactions with other persons of different cultures. Students will practice working in diverse groups and creating messages adapted to culturally diverse groups. Topics may include: defining culture, differences and similarities in using verbal and nonverbal symbols among different cultures, barriers to effective intercultural communication, interactive listening, working in intercultural groups, adapting messages for culturally diverse groups and strategies for bridging cultural differences. (College Level Reading and Writing or Permission of Instructor). (3 C/3 lect, 0 lab).

COMM 2130 Small Group Communication

The purpose of Small Group Communication is to enhance students¿ understanding of the theories and practice of small group communication so that they may communicate competently in various team contexts. Students will gain knowledge about group process theory, along with actual experiences participating in small groups. The course will enhance students¿ ability to engage in effective communication in diverse group and team contexts including taking leadership roles and conducting meetings. This course examines basic communication concepts and processes which influence the nature and function of group dynamics in both face-to-face and computer-mediated teams. (Prerequisites: College level reading and writing or permission of instructor). (3 C/3

lect, 0 lab). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking.

COMM 2214   Strategies of Human Communication
Students will develop a variety of communication skills and an understanding of related communication principles. This course will include a heavy emphasis on public speaking and incorporate the use of computerized technology, along with components of organizational communication, small group communication, and intercultural communication. (Prerequisites: SPCH 1114). (3 C/3 lect, 0 lab). MNTC: Goal 1/Oral and Written Communication, Goal 2/Critical Thinking.

COMM 2220   Communication and Gender
The course will focus on how communication and culture create, maintain, and change gender. Patterns in women's and men's verbal and nonverbal communication, why these patterns differ, and how communication differences are perceived will be emphasized. This course will explore the similarities and differences between the male and female communication culture in a variety of interpersonal and situational contexts, including the family, friendship, romantic relationships, education the workplace, and the media. (Prerequisites: Appropriate score on RCTC placement test or completion of appropriate developmental courses with grades of C or better). (3 C). MNTC: Goal 1/Oral and Written Communication, Goal 2/Critical Thinking, Goal 7/Human Diversity.

COMM 2292   Speech Activity
Students may earn credit by involving themselves either in a theatre production, individual forensics project, or individual service Learning project. Theatre: 50-55 hours participation per semester, per credit, is required for completion of this course. Forensics: An individual project should be student generated, structured, and presented to the instructor prior to registering for the class. Service Learning: 55 service learning hours per credit per semester or summer session will be required for the completion of this course. The individual service learning project should be student generated, structured, and presented to the instructor prior to registering for the class. (Prerequisites: Permission of instructor). (1-3 C).

COMPUTER SCIENCE

COMP 0243   Int/Program:C
Intro to Program:C

COMP 1112   Introduction to Computers With Applications
Introduction to basic computer concepts including hardware, software, and social impact. An introduction to and hands-on experience with applications including word processing, spreadsheet, and database is covered as well as an introduction to Internet use. This is a course for students who wish to develop basic computer literacy and acquire the background to be able to effectively use computer applications in school or on the job. (Prerequisites: College level reading). (3 C).

COMP 1150   Computer Science Concepts
Introduction to the field of computer science, including concepts of machine architecture, data representation, operating systems, networking and telecommunications, algorithms, programming languages, software engineering, data organization, and artificial intelligence. Intended as a first course for computer science majors. (Prerequisites: MATH 0099 or appropriate placement test score into MATH 1115; college level reading). (3 C).

COMP 1731   Web Application Development
This course introduces developing web applications. Students will explore HTML and CSS, forms error checking and validation, server-side scripting, and database interaction. Students will construct and evaluate multiple web applications. (Prerequisites: MATH 1111 or higher). (3 C).

COMP 1741   Client-Side Scripting
This course introduces client-side scripting. Students will explore HTML and CSS, dynamic client-side scripting, client-side error checking and validation, and asynchronous server interaction. Students will construct and evaluate various client-side interactions. (Prerequisites: MATH 1111 or higher). (3 C).

COMP 1751   Mobile Application Development
This course introduces development of applications for mobile devices. Students will explore web programming, native device programming, and database interaction. Students will construct and evaluate multiple applications for mobile devices. (Prerequisites: MATH 1111 or higher). (3 C/3 lect/lab).

COMP 2220   Concepts of Programming Using Visual Basics
A course for non-computer science majors to introduce the concepts of data representation, algorithms, and programming in a high-level language. Algorithm development, modular design, and program debug. This course is intended for students who need an introduction to programming without the computer science theory content of the computer science programming sequence. (Prerequisites: MATH 0099 or appropriate placement test score into MATH 1115; college level reading). (4 C).

COMP 2233   Structured Cobol Programming
An in-depth study of structured program design utilizing the COBOL language. Topics include structured design, sequential file processing, direct file processing, data organization, database manipulation, and report writing. (Prerequisites: Successful completion of COMP 1150; college level reading). (4 C).

COMP 2243   Programming and Problem Solving
A course for computer science majors to introduce the major concepts of problem solving, algorithm design, and programming. Algorithm development, analysis, and refinement. Top-down and object-oriented program development concepts. Simple and composite data types, classes, and control structures including selection, iteration, and subprograms. Java programming language will be used beginning Fall 2000. (Prerequisites: MATH 1115, COMP 1150 [with permission of instructor, COMP 2243 may be taken concurrently with one of these classes]; college level reading). (4 C).

COMP 2247   Algorithms and Data Structures
Problem solving techniques with data structures such as records, dynamic structures, and pointer variables. Introduction to object-oriented concepts. Use of linked lists, stacks, queues, and binary search trees. Sorting and searching algorithms. Complexity of algorithms. (Prerequisites: COMP 1150, 2243; college level reading). (4 C).

COMP 2297   Rpg Programming I
An introduction to the elements of RPG (Report Program Generator) programming and program documentation. The specific orientation will be toward RPG as it is used on IBM mid-range hardware. Applications will be taken from its use in a day-to-day professional programming environment and in report generation. (Prerequisites: Successful completion of COMP 1150; college level reading). (4 C).

Consortium Course

CORT 0001   Consortium Course
Per request of FA office.

CORT 0002   Consortium Course
By request of FA office.

CORT 0003   Consortuim Course
Per F.A. office request.

CORT 0004   Consortium Course
Per F.A. office request.

CORT 0006   Consortium Course
Per FA

CORT 0012   Consortuim Course
Per FA

CORT 0015   Consortium Course
Per F.A. request.

CARPENTRY

CR 1600   Carpentry Theory I
This course covers information on the various hand tools and their uses. The student will learn safety procedures and will be able to identify building materials. The student will also study footings and foundations, floor joist systems, walls, roofs, and ceiling application. (Prerequisites: None). (3 C/3 lect, 0 lab, 0 OJT).

CR 1610   Residential Blueprint Reading
The purpose of this course is to develop fundamental skills necessary to interpret blueprints used the building trades. Topics included will be blueprint symbols and abbreviations, interpreting structural details, and "hands on" blueprint interpretation. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

CR 1612   Shop Practice I
In this course students are taught to use and maintain hand tools portable power tools and woodworking machines in a safe and

efficient manner. (Prerequisites: CR 1511). (2 C/0 lect, 2 lab, 0 OJT).

CR 1622   Carpentry Theory II
In this course the student will identify a variety of building materials and their uses and will study how blueprints and plans are used on various projects. The student will also study footings and foundations, floor joist system, walls, roofs and ceiling applications. (Prerequisites: None). (3 C/3 lect, 0 lab, 0 OJT).

CR 1623   Rough Framing
In this course students will assemble floor systems and build exterior and interior walls. The students will be introduced to building practices, tools of the trade, and work habits. (Prerequisites: None). (5 C/0 lect, 5 lab, 0 OJT).

CR 1625   Footing and Foundation
The student will build footings and slab forms above and below grade, and pour and finish concrete. Wood foundations will also be studied. (Prerequisites: None). (1 C/0 lect, 2 lab, 0 OJT).

CR 1627   Roofing Systems
In this course students will be building rafters, setting trusses, and putting on roof materials. (Prerequisites: None). (2 C/0 lect, 2 lab, 0 OJT).

CR 1632   Construction Estimating
The focus of this course is to develop skills necessary to accurately estimate costs to build a residential structure. As residential construction is very competitive, accurate cost bidding is necessary if a builder is to compete successfully. Estimates will cover cost factors ranging from the foundation through the completed roof to the completed interior. (Prerequisites: None). (3 C/3 lect, 0 lab, 0 OJT).

CR 1635   Shop Practices II
In this course the student will layout and build cabinets using hand and power tools. The student will also study plastic laminations and apply their installation techniques. (Prerequisites: CR 1612 and Instructor approval). (2 C/0 lect, 2 lab, 0 OJT).

CR 1636   Interior Finishing
In this course the students will build projects relating to interior finishing and exhibit skills and craftsmanship required for the standards of trade. Mock-ups will be used to give a variety of construction projects. (Prerequisites: First semester classes). (4 C/0 lect, 4 lab, 0 OJT).

CR 1637   Exterior Finishing
This course covers installing open and closed cornices, applying siding and moisture barriers, and installing doors and windows. (Prerequisites: None). (2 C/0 lect, 2 lab, 0 OJT).

CR 1638   Exterior Finishing II
This course covers installing siding and all exterior trim accessories. Also it will cover deck building. (Prerequisites: None). (2 C/0 lect, 2 lab, 0 OJT).

CRIMINAL JUSTICE

CRJU 1205   Introduction to Private Security
This course will cover major topics that include the history and evolution of private security, basic security goals and responsibilities, challenges facing security, security systems. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: College level reading and writing. (Prerequisites: None). (3 C).

CRJU 1210   Defensive Tactics for Protective Agents
This course of study works to install confidence to overcome physical resistance and to control the person under arrest or being restrained. This course aids to reduce the likelihood of injury to the protective agent, minimize the use of excessive force and positive self-image with physical and mental conditioning. Basic techniques on how to best defend against certain common types of attack and reasonable force necessary to overcome the resistance being offered, analysis of physical confrontations and basic principles are demonstrated with practical exercises. Lectures include terminology used when documenting and testifying in court regarding the use of force compliance techniques. The use of chemical agents is also covered. Students will learn proper deployment techniques and then be exposed to chemical agents. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: College level reading and writing. (Prerequisites: None). (2 C).

CRJU 1215   Homeland Security/Defense
This course explores the concept of national, state, and local defense with attention to the changing issues for the criminal justice system. Students will employ scientific theories and methods to analyze the changing roles of Military, law enforcement, and

private security in defense. Topics will include terrorism, weapons of mass destruction, civil rights and constitutional issues with defending the United States RECOMMENDED ENTRY SKILLS/KNOWLEDGE: College level reading and writing. (Prerequisite: None). (3 C).

CRJU 1305   Introduction to Criminal Justice
This course an introduction to the American Criminal Justice System. Topics will include the police, courts, and correctional systems. (Prerequisites: None). (3 C).

CRJU 1308   Corrections and Probation
This course will cover the history and evolution of Corrections from early European times through present day America. It will then move to the current state of Corrections and the daily challenges that correctional officers go through. The student will also learn about the different type of offenders and inmates that they would be expected to deal with on a daily basis. The class will also discuss the differences between State, local and Federal institutions. (Prerequisites: None). (3 C).

CRJU 2310   Special Topics in Criminal Justice
This course will look at a variety of contemporary issues which are considered to be relevant in criminal justice in recent years. The material in this course will touch on issues such as deadly force, gangs domestic terrorism, and sex offenders. Topics will also focus on current events in the field of Criminal justice. Even though topics may vary, this course may only be taken once. (Prerequisites: CRJU 1305, CRJU 1308). (3 C).

CRJU 2315   Community Corrections
This course addresses the concepts and practices of community corrections. The specific content includes halfway house program activities, restitution projects and program coordination, work release activities, court diversion processes and programs, truancy tracking programs, and community outreach initiatives. (Prerequisites: CRJU 1305, CRJU 1308). (3 C).

CRJU 2320   Ethics in Criminal Justice
Criminal Justice Ethics includes definitions, perceptions, concerns, and the history of deviance within the field of Criminal Justice as an occupation. The working environment is discussed. The ideology and culture of corrections and the motive and justification for breaking normative bonds are covered. Brutality, abuse of authority, prejudice, and discrimination are discussed. Drug-related deviance, varieties of correctional deviance, internal and external controls influencing deviance and corruption, and prospects for controlling deviance are also included. (Prerequisites: None). (3 C).

CLINICAL RESEARCH STUDY COORDINATOR

CRSC 1010   Foundations of Clinical Research I: Concepts and Theories
This is an introductory research methods course for clinical research. It is designed to introduce the student to basic concepts in clinical investigation, including types of data and measurement, sampling, probability, and research design. Students are introduced to the research process with emphasis on the overall clinical research process. Among the topics discussed are: resources & documentation; discussions about the research problem, hypotheses testing & sampling; research methods such as experimental design, survey methods, and longitudinal studies; data collection procedures & problems; an overview of basic data entry and analysis; and reporting research. (Prerequisites: None). (4 C/4 lect, 0 lab).

CRSC 1100   Legal and Regulatory Compliance in Clinical Research
Students will learn about each major research regulatory body that governs the conduct of clinical research nationally and internationally. Students will learn about the structure and function of research regulations and guidelines. Students will be challenged to review, discuss, and contemplate the current state of research regulation and how that impacts research compliance and integrity. (Prerequisites: CRSC 1000 prior to taking this course or taken concurrently). (4 C/4 lect, 0 lab).

CRSC 2010   Foundations of Clinical Research II: Applications
Clinical Research Foundations II: Applications is a course that will expose the student to basic terminology and concepts related to clinical research management and coordination. The course will also provide the historical timeline of research, and how history has impacted current regulatory standards implemented for human subjects' protection. (Prerequisites: CRSC 1010). (4 C/4 lect, 0 lab).

CRSC 2100   Clinical Research Site Management
Clinical research site management will expose the student to site organization, operations and management. The process of starting a study through closeout and archiving a study will be discussed. The course will also provide an insight into the entities involved in clinical research. (Prerequisites: Admission to the CRSC program, college level reading). (4 C/4 lect, 0 lab).

CHILD, YOUTH AND FAMILY STUDIES

CYFS 1001   Seeing Children and Youth

This course introduces the subject of children and youth with a focus on young people in everyday life. Students will watch, read about, wonder about, describe and analyze, and look up information about children and youth. Exploration of career opportunities, roles, and responsibilities working with and on behalf of children and youth is also included. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 2 lab).

CYFS 1210   Child Growth and Youth Development

This course provides an overview of typical and atypical child development across cultures, from prenatal through adolescence. Physical, social, emotional, language, cognitive, aesthetic, and identity/individual development will be explored. Integrating developmental theory with appropriate practices in a variety of early childhood care and education settings will be emphasized. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 2 lab).

CYFS 1212   Topics in Child Development

This course examines a particular area of child and adolescent development with an emphasis on recent research, new theories and emerging practice. Focus is on a specific topic with attention to how it applies to current social issues and promoting the healthy development of children, youth, and families in community settings. (Prerequisites: None). (1-3 C/1-3 lect, 0 lab).

CYFS 1220   Child Safety, Health and Nutrition

This course will guide the student in obtaining skills needed to establish and maintain a physically and psychologically safe and healthy learning environment for young children. Topics include illness and accident prevention, emergencies, children's basic nutritional needs, and child abuse/neglect prevention and intervention. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/3 lect, 1 lab, 0 OJT).

CYFS 1232   Guidance and Group Dynamics

This course introduces concepts, principles and strategies for building supportive relationships with children and youth in order to enhance learning, development, and well-being. Focus is on recognizing individual needs, establishing positive expectations, motivating and engaging, managing groups, preventing difficult behavior, positive guidance methods, and responding effectively to difficult behavior. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 1 lab).

CYFS 1235   Learning Environments

This course presents an overview of knowledge and skills related to providing appropriate environments for young children from birth to age 9. Students will examine the teacher's role in supporting development and fostering the joy of learning for all young children emphasizing the essential role of play. An overview of planning activities and teaching through group time, small groups, interest center, will be included. (Prerequisites: Appropriate score on RCTC placement test for READ 0840 and ENGL 0980). (3 C/2 lect/1 lab).

CYFS 1310   Infant/Toddler Principles and Practices

This course provides an overview of infant/toddler development and the central concepts, methods, and content areas in provide appropriate environments that support learning in each content area for all children. Designing, implementing, and evaluating meaningful, challenging curriculum requires alignment with appropriate early learning standards and knowledgeable use of the discipline's resources to focus on key experiences for each age group and each individual child.(Prerequisites: Appropriate test placement score into ENGL 1117, CD 1210 or instructor permission). (4 C/3 lect, 1 lab, 0 OJT).

CYFS 1312   Preschool Principles and Practices

This course provides an examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions. Students will examine the teacher's role in supporting development and fostering learning for preschool-age children. An overview of content areas will include but not be limited to: language and literacy, social and emotional learning, sensory learning, math and science, and art and creativity. (Prerequisites: Test into ENGL 1117, CD 1210 or instructor permission). (4 C/3 lect/1 lab).

CYFS 1314   School-Age Principles and Practices

This course provides an examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions. Students will examine the teacher's role in supporting development and fostering learning for school-age children. An overview of content areas will include but not be limited to: language and literacy, social and emotional learning, sensory learning, math and science, and art and creativity. (Prerequisites: Appropriate score on RCTC placement test for ENGL 1117. CD 1210 or instructor permission). (4 C/3 lect, 1 lab).

CYFS 1320   Observing and Assessing

This course examines the appropriate use of assessment and observation strategies to document development, growth, and learning in order to promote children the success of children and youth and maintain a quality program. Recording strategies, rating systems, portfolios, and multiple assessment methods will be explored. (Prerequisites: CD 1210 or instructor permission). (3

C/2 lect, 1 lab).

CYFS 1510   Balancing Work and Family
This course focuses on the dual demands that impact employed parents as they manage both work and family expectations. Topics include personal and parent growth, family communication and development, child development characteristics, and managing children's behavior. Time management strategies for busy families will be emphasized. (Prerequisites: None). (1 C/1 lect, 0 lab, 0 OJT).

CYFS 2002   Introduction to Youth Work
This course introduces the foundations and theories of positive youth development that are critical to how professional youth workers think about and work with young people. Theoretical foundations include the eight basic youth needs, ecological context, assets and resiliency, and experiential learning. Students will examine the impact of barriers to youth participation, explore approaches to build relationships with young people and learn how to engage the community on behalf of youth. This class provides a strong foundation for professionalism and ethical practice as well as critical thinking and analysis with respect to youth work and positive youth development. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 2 lab).

CYFS 2101   Child and Youth Issues
This course explores what it means to be a child and an adolescent in the in the context of neighborhoods, schools, communities, and geographic urban or rural settings. Students will examine children and youth Issues such as social class, race/ethnicity, language, religion, sexual orientation, gender, disability, substance abuse, community violence in order to develop awareness, understanding, and practical skills needed to work with children and youth from diverse backgrounds. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (4 C/3 lect, 1 lab).

CYFS 2105   Child and Youth Issues
This course explores what it means to be a child and an adolescent in the in the context of neighborhoods, schools, communities, and geographic urban or rural settings. Students will examine children and youth Issues such as social class, race/ethnicity, language, religion, sexual orientation, gender, disability, substance abuse, community violence in order to develop awareness, understanding, and practical skills needed to work with children and youth from diverse backgrounds. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/3 lect, 0 lab).

CYFS 2241   Experiential Learning
This course provided an introduction to the history and theory of experiential learning and its application in youth work. Students observe, plan, implement, reflect on, and evaluate meaningful learning in a variety of settings. Requires 32 hours of field experience with youth. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (4 C/3 lect, 1 lab).

CYFS 2510   Internship
This course provides an opportunity to apply knowledge and skills in an actual child development setting. Students will observe and assess children¿s behavior, facilitate learning, implement adult-directed learning experiences, and maintain professional relationships. Requires a criminal background check and 144 hours of direct experience with children in an instructor approved setting. (Prequisites: Completion of CD 1230 and 12 CD credits or instructor permission). (3 C).

CYFS 2540   Supporting Children's Mental Health
This course helps teachers, caregivers, and parents develop the knowledge, attitudes, and skills to increase their capacity to provide therapeutic care and intervention in the context of the child's everyday experience. The contributing factors toward children's mental illness, techniques for recognizing and documenting challenging behaviors, and responding to psychological disorders in children will be examined. (Prerequisites: None). (3 C/3 lect, 0 lab).

CYFS 2570   Multicultural Learning Experiences
This course provides an overview of multicultural and anti-bias learning experiences in center-based and home settings. Students will integrate knowledge of child development, learning environments, and teaching methods to promote and enhance multiculturalism and anti-bias in childcare and educational settings. (Prerequisites: None). (3 C/2 lect, 1 lab, 0 OJT).

CYFS 2580   Creative Development Experiences
This course provides an overview of creative/aesthetic learning experiences in center-based and home settings. Students will develop a visual, creative development portfolio with examples of over 100 creative experiences appropriate for children from 1-12 years of age. Great artists, children's book illustrators, multi-cultural art processes, and creative dramatic play will also be explored. (Prerequisites: None). (3 C/2 lect, 1 lab, 0 OJT).

CYFS 2600   Professional Leadership
This course prepares students to take active leadership and advocacy roles in the child development profession through examining and applying the NAEYC Code of Ethical Conduct and Statement of Commitment to case studies, developing and

delivering effective early childhood in-service presentations, and constructing child/family advocacy displays. (Prerequisites: ENGL 1117 and 15 CD credits or instructor permission). (3 C/3 lect, 0 lab).

CYFS 2630   Children and Youth with Special Needs
This course examines issues related to educating children and adolescents with special needs in a variety of settings. The following topics will be addressed: knowledge of, and sensitivity toward individuals with disabilities, identification of special needs and mental health concerns; methods used to modify the curriculum and accommodate various learning styles; and involving parents and collaborating with others to meet children needs. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980. CD 1210 or instructor permission). (3 C/2 lect, 1 lab).

CYFS 2640   Curriculum Planning
This course provides an advanced level exploration of program curriculum planning. Emphasis is on organizing, implementing, and evaluating a developmentally appropriate, culturally responsive, and inclusive curriculum. State approved curriculum will be explored, with special emphasis on The Project Approach and Reggio Emilia. (Prerequisites: ENGL 1117 and 15 CD credits or instructor permission). (3 C/3 lect, 0 lab).

CYFS 2810   Practicum I
This course provides an opportunity to apply knowledge and skills in early childhood or school age setting, including licensed family childcare. Students will plan and implement a variety of learning experiences that are developmentally appropriate for and culturally sensitive to a specific age and group of children. Requires criminal background check and 144 hours with children in an instructor approved setting. (Prerequisites: CD 1230 and 12 credits in CD or instructor permission). (3 C/0 lect, 0 lab, 3 OJT).

CYFS 2840   Practicum II
This course provides and opportunity to apply knowledge and skills in program planning for early childhood/special education leadership roles. Students identify, design, implement, and analyze a comprehensive program that includes schedules, daily plans, sensitivity to needs of individual children and families, integration of children with special needs, integration of community resources, co-operation with co-workers, and staff development considerations. Requires criminal background check and 144 hours with children in an instructor approved setting. (Prerequisites: CD 1230 and 12 credits in child development or instructor permission). (3 C/0 lect, 0 lab, 3 OJT).

DENTAL ASSISTANT

DA 1200   Dental Communications
The first part of this course introduces the dental assisting student to the members of dental health team, training and credentialing requirements, methods of delivering dental care, and the professional dental organizations. The second component focuses on verbal and non-verbal communications and psychology as they relate to dentistry. The final component covers principles of dental jurisprudence and ethics. This course is to be taken the first year of the two year option. (Prerequisites: DA program admission). (2 lect/2 lab).

DA 1210   Dental Science I
Dental Science I covers anatomy and physiology of the teeth, the oral structures, and structures of the head and neck. Emphasis will be given to their anatomical parts, shape and form, clinical characteristics, development, and physiology. This course provides the student with foundation information required to effectively communicate and perform in a dental setting. This course is a prerequisite to all clinical courses in dental assisting and a prerequisite to Dental Science II. (Prerequisites: DA program admission) (3 C/2 hours lecture, 2 hours lab).

DA 1215   Dental Practice Management
This course focuses on developing skills as a dental business assistant. Topics included are: reception skills, business letter writing, telephone techniques, bookkeeping/accounting procedures, banking procedures, dental insurance, preventive recall programs, appointment scheduling, inventory control and management, general office procedures, and dental computer applications. This course also focuses on employment seeking skills to include preparation of resumes, job application letters, job application form, follow-up letters and preparing for an employment interview. (Prerequisites: DA program admission) (2 C/1 hour lecture, 2 hours lab).

DA 1220   Chairside Assisting I
Chairside Assisting I covers the following fundamental areas of four-handed dentistry: dental equipment, instruments and supplies; instrument tray set-ups; patient and team positioning; maintenance of the operating field; instrument transfer; patient management; the fundamentals of operative dentistry; assisting for local anesthesia, oral diagnosis, oral prophylaxis, amalgam and composite restorations; and the prevention, recognition and treatment of medical emergencies. This course should be taken concurrently with DA 1225: Dental Infection Control, and is a pre-requisite to Chairside Assisting II. (Prerequisites: DA program admission) (6 C/2 hours lecture/4 hours lab).

DA 1225   Dental Infection Control

Dental Infection Control will prepare the dental assisting student to function aseptically and safely in the dental clinical environment. The course covers principles of microbiology and disease transmission, current concepts of infection control, and hazard communication and management in dental practice. Course content will review requirements and protocols as recommended by the American Dental Association, the Occupational Safety and Health Administration, and the Centers for Disease Control. This course is a pre-requisite to all dental assisting clinical courses. (Prerequisites: DA program admission). (2 C/1 hour lecture, 2 hours lab).

DA 1230   Preventive Dentistry

This course focuses on disease prevention. Specific emphasis is on the nature of healthy oral tissues, dental decay and periodontal disease, plaque removal techniques, gum stimulation techniques, nutrition, nutritional counseling, and patient dental education presentations. (Prerequisites: DA program admission). (2 C/1 hours lecture, 1 hour lab).

DA 1250   Dental Science II

Dental Science II is a course with four separate focuses. Introduction to Anatomy and Physiology will include an overview of the body layout and each body system. Dental Charting will teach the student how to correctly record patient information, chart oral conditions, and services rendered. Oral Pathology reviews disease processes and dental disease conditions. Dental Pharmacology reviews a study of common drugs and therapies used in dentistry. This course is to be taken the first year of the two-year option. (Prerequisites: Grade of "C" or better in DA 1210). (3 C/2 lect, 1 lab, 0 OJT).

DA 1255   Dental Materials

Dental Materials is a study of the properties, uses, and manipulation of chairside and dental laboratory materials. These materials are used in the reconstruction and restoration of the teeth and oral structures. The students will have extensive laboratory experience with the chairside and dental laboratory materials. (Prerequisites: DA program admission). (4 C/2 lect, 2 lab).

DA 1260   Chairside Assisting II

Chairside Assisting II will introduce the student to basic concepts of assisting for each of the dental specialties; to include: Pediatric Dentistry, Fixed Prosthodontics, Removable Prosthodontics, Endodontics, Oral and Maxillo-Facial Surgery, Periodontics, Orthodontics, and Public Health (Community) Dentistry. For each specialty, the student will learn terminology, treatment techniques, instrument set-ups, procedural order, and patient pre-operative and post-operative instructions. For Public Health Dentistry, students will actively plan and deliver dental care presentations for a variety of community groups. (Prerequisites: DA program admission). (4 C/2 lect, 2 lab).

DA 1265   Expanded Functions

This course covers the theory and pre-clinical/ clinical experiences required by the Minnesota Board of Dentistry in preparation for becoming a Licensed Dental Assistant in Minnesota. After the theory and demonstrations are presented, the students receive practical experience on manikins and patients under the direct supervision of the dental assisting instructors and the clinic dentist. Students will also be required to demonstrate appropriate professional behavior and skill in patient communications, chairside assisting, dental infection control, and dental practice management. (Prerequisites: DA Program admission; Dental Assistant Diploma or AAS students must have successfully completed all Fall semester courses; Dental Assistant Expanded Functions Certificate Program students must be currently a Certified Dental Assistant (Certified by the Dental Assisting National Board, Inc.) and have completed DA 1225: Dental Infection Control with 'C' letter grade or better). (7 C/2 hours lect, 2 hours lab, 8 hours clinic).

DA 1270   Expanded Functions II

Expanded Functions II focuses specifically on the theory and clinical experiences required by the Minnesota Board of Dentistry to perform the following two Minnesota expanded duties that may be delegated to a Licensed Dental Assistant: 1) Monitor a patient that has been induced by a dentist into nitrous oxide-oxygen relative analgesia, Indirect Supervision; 2) Administer nitrous oxide inhalation analgesia pursuant to the rule provisions. A maximum dosage must have been prescribed for the patient by the dentist, Direct Supervision. Successful completion of this course is required prior to entry into DA 1280: Dental Assisting Internship. (Prerequisites: RCTC Dental Assistant Program admission, completion of DA 1265: Expanded Functions I, current Certification in American Red Cross CPR/AED for the Professional Rescuer or American Red Cross Healthcare Provider CPR (Adult, Infant, Child, plus Defibrillators). (1 C/1 lect, 0 lab).

DA 1280   Dental Assisting Internship

This course is designed to provide the student with a meaningful occupational experience in the dental assisting field. A training plan will be developed for each student including three separate rotations in three different dental practices. Two rotations will be in a general dental practice and one rotation will be in a specialty practice. Seminars are scheduled as part of the required internship experience. This internship is required by the American Dental Association as an integral part of an accredited dental assisting program¿s curriculum. (Grade of "C" or better in all the following Dental Assisting courses: DA1200, DA 1210, DA 1215, Da 1220, DA 1225, DA 1230, DA 1250, DA 1255, DA 1265, DA 1270, and DS 1300; approved state and national background studies, current certification in American Red Cross Adult, Infant, Child CPR and First Aid and permission from Program Director). (7 C/36-40 hours per week for 9-10 weeks).

DA 2291   Re-Assessment Prior Program Learning
Dental Assistant course

DANCE

DANC 1101   Ballet I
This is an introductory ballet course designed to give the student foundational skills and vocabulary to progress further in the field. Basic ballet terminology, familiarity with the body as a tool of performance art, aspects of performance and broad outlines of ballet history will be covered. Physical flexibility, strength and stamina will be developed. For beginning dancers as well as those who have been away from dance for some time. (Prerequisites: None). (3 cr/3 contact hours per week). MNTC: Goal 6/Humanities - the Arts, Literature and Philosophy.

DANC 1102   Modern I
This is an introductory modern dance course designed to give the student foundational skills and vocabulary to progress further in the field. Basic modern terminology, familiarity with the body as a tool of performance art, aspects of performance and broad outlines of modern dance history will be covered. Physical flexibility, strength, and stamina will be developed. For beginning dancers as well as those who have been away from dance for some time. (Prerequisites: None). (3 C). MNTC: Goal 6/Humanities - the Arts, Literature and Philosophy.

DANC 1103   Jazz I
This is an introductory jazz dance course designed to give the student foundational skills and vocabulary to progress further in the field. Basic jazz terminology, familiarity with the body as a tool of performance art, aspects of performance and broad outlines of jazz history will be covered. Physical flexibility, strength and stamina will be developed. For beginning dancers as well as those who have been away from dance for some time. (Prerequisites: None). (3 C/3 contact hours per week). MNTC: Goal 6/Humanities - the Arts, Literature and Philosophy.

DANC 1125   Dance Appreciation
This course will critically analyze dance as a discipline, art form and as a means of social interaction. Students will engage in readings, video and live performance through in-class discussions and written assignments. Students will examine kinesthetic, emotional and intellectual responses to dance. The evolution of dance will be examined in its social, cultural and political context. (Prerequisites: College level reading and writing equivalent to ENGL 1117 (concurrent enrollment with instructor permission). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

DENTAL HYGIENE

DH 1510   Principles of Dental Hygiene I
Introduction to the etiology and prevention of dental diseases, infection control, patient assessment, normal oral conditions, periodontal assessment, selective polishing, patient education and the history of the dental hygiene profession. (Prerequisites: College level reading; head and neck anatomy; dental anatomy and terminology. Co-Requisites: DH 1511 concurrently). (2 C/2 lect, 0 lab).

DH 1511   Dental Hygiene Practice I
Preclinical laboratory sessions designed to introduce basic instrumentation techniques necessary for the practice of dental hygiene. The theory, functions and procedures introduced in DH 1510 will be applied. (Prerequisites: College level reading and writing skills. Co-requisites: DH 1510 concurrently). (3 C/0 lect, 3 lab).

DH 1512   Oral Anatomy
The focus of this course is on the anatomical components and functions of the teeth and tooth supporting structures, soft tissue landmarks of the oral cavity, dental terminology. Embryology and histology of the maxillofacial area and dental structures are emphasized. The skeletal structure, muscular function, blood supply, and innervations of the maxillofacial region will also be covered. (Prerequisites: BIOL 1217; college level reading and writing skills; high school biology background). (4 C/3 lect, 1 hour D2L).

DH 1520   Principles of Dental Hygiene II
This course is designed to continue the student's education in the basic clinical theory, functions and procedures necessary for comprehensive patient treatment with an emphasis on primary preventive measures, clinical dental hygiene skills and management of medical emergencies. (Prerequisites: DH 1510). (2 C/2 lect, 0 lab).

DH 1521   Dental Hygiene Practice II
A continuation of Dental Hygiene Practice I introducing the student to basic clinical theory, functions, and procedures necessary for

comprehensive patient treatment. Students will continue practice on student partners until all basic competencies are satisfied and will then begin treating clients in the clinical setting. (Prerequisites: DH 1510, DH 1511, and DH 1512, current CPR certification, college level reading and writing skills, MN Background chekc, health requirements on file. Co-requisites: Concurrent with DH 1520). (5 C/0 lect, 5 lab).

DH 1523   Oral Pathology
Introduction to the basic inflammatory and immune responses as they relate to the human body. The course will focus on the fundamental disease processes involving the maxillofacial region. (Prerequisites: DH 1512, BIOL 1217. College level reading and writing skills; knowledge of basic anatomy and physiology; knowledge of basic dental tissues). (2 C/ 2 lect, 0 lab).

DH 1524   Periodontology
Discussion of the pathogenesis, diagnosis, and treatment of periodontal disease. Emphasis will include the progression of periodontal disease, diagnostic methods, treatment modalities, and the role of the dental hygienist in the prevention and treatment of periodontal disease. (Prerequisites: DH 1510, 1512. College level reading and writing skills; basic word processing skills and literature review skills). (2 C/2 lect, 0 lab).

DH 2530   Principles of Dental Hygiene III
A continuation of Principles of Dental Hygiene II with an emphasis on advanced dental hygiene skills and applied auxiliary skills. This course will familiarize the dental hygiene student with the properties and uses of various dental materials. The focus will be on composition, chemistry, and clinical application of commonly used materials in dentistry. (Prerequisites: DH 1510, 1520). (3 C/2 lect, 1 lab).

DH 2531   Dental Hygiene Practice III
A continuation of Dental Hygiene Practice II with supervised clinical experience and a weekly seminar. Students will apply basic theories, functions and procedures necessary for comprehensive client treatment. (Prerequisites: DH 1521; CPR certification; college level reading and writing, and critical thinking skills). (6 C/0 lect, 6 lab).

DH 2532   Pain Control
A lecture and laboratory course in the basic and current concepts in the administration of local al anesthesia and nitrous oxide/ oxygen analgesia. The content areas include anatomical considerations, local anesthetic and nitrous oxide armamentarium, pharmacology and clinical action of local anesthetics and nitrous oxide, patient evaluation, local and systemic complications, techniques of maxillary and mandibular anesthesia and nitrous oxide administrations. (Prerequisites: DH 1512 and 1521. Head and neck anatomy; dental pharmacology). (2 C/1 lect, 2 lab).

DH 2533   Dental Pharmacology
Survey of drug groups with special emphasis on the drugs used in dentistry. The course will include content in the following: physical and chemical properties of the drug covered, modes of administration, therapeutic and adverse effects, and drug interactions. (Prerequisites: CHEM 1117, DH 1520, DH 1521. Basic math and college level reading). (2 C/2 lect, 0 lab).

DH 2540   Principles of Dental Hygiene IV
A continuation of Principles of Dental Hygiene III with an emphasis on maintenance of dental implants, subgingival irrigation, special needs patients, nutrition counseling, resume writing and job interviews, legal and ethical responsibilities of the dental team, dental specialties, and health care delivery issues. (Prerequisites: DH 1510, DH 1520 and DH 2530). (3 C/3 lect, 0 lab).

DH 2541   Dental Hygiene Practice IV
A continuation of Dental Hygiene Practice III with supervised clinical experience and a weekly seminar. Students will apply basic and advanced theories, functions, and procedures necessary for comprehensive client treatment. (Prerequisites: DH 2531; CPR certification; college level reading and writing, and critical thinking skills). (6 C/0 lect, 6 lab).

DH 2542   Community Dental Health
This course provides a spectrum of experience which contributes to the continuing development of insight into community problems and understanding the needs of people in the community. It provides an understanding of how private dentistry and dental public health can work together to meet the needs of the community. When completed, the student has a working knowledge of public health. The laboratory portion of this course is designed to assist the students in needs assessment, program planning, program implementation, funding, and program evaluation. This course includes the development of an educational pamphlet or poster on a health or dental health topic. This course includes an observation rotation at an alternative delivery site. (Prerequisites: High school algebra or the college equivalent). (3 C/2 lect, 2 lab).

DS

DS 1300   Dental Radiology
Dental Radiology includes the history of radiology, theoretical concepts of the characteristics of radiation, the effects of radiation

exposure, roentgenographic anatomy and pathology, radiographic exposure techniques, film processing and mounting, film evaluation, radiation biology and protection, and intra and extraoral radiographic procedures. (Prerequisites: Dental Assisting Diploma or AAS Degree Students DA 1200, DA1210, DA 1215, DA 1220, DA 1225, DA 1230; Dental Assistant Expanded Functions Certificate students - Certified Dental Assistant and DA 1225; Dental Hygiene Students - DH 1510, DH 1511, DH 1512). (3 C/2 lect, 2 lab).

ECONOMICS

ECON 0214   Prin Econ - Micro
micro econ

ECON 1101   Introduction to Economics
This course provides a general economics education for both non-major transfer students and for career students. Content includes the nature of product markets and resource markets; current issues such as price ceilings, price floors, unemployment and inflation; and public policy perspectives pertinent to national fiscal and monetary affairs, and trade with other countries. Because of its general nature, this course is not a substitute for in-depth Econ 2214 or Econ 2215 courses. (Prerequisites: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 10/People and the Environment.

ECON 2214   Principles of Economics: Micro
This course provides in depth understanding of microeconomic behaviors by consumers and business leaders in markets that illustrate perfect competition, monopoly, oligopoly, and monopolistic competition. Concepts include supply and demand, marginal analysis, efficient resource allocation, and profit or loss. Contemporary issues may include wage determination, or income distribution, or regulation of industry, or irregularities like price discrimination. Public policy perspectives may include economic insight about externalities (such as climate control, education, vaccines, pollution, or over-population). (Prerequisites: College level reading and writing; MATH 1113 or 1115 or permission of instructor). (4 C). MNTC: Goal 2/Critical Thinking, Goal 5/History, Social and Behavioral Sciences, Goal 10/People and the Environment.

ECON 2215   Principles of Economics: Macro
This course provides in depth understanding of macroeconomic theory and practice. Emphasis is placed on free markets and capitalism, though utopian and socialism are not ignored. Keynesian theory or aggregate supply and demand are used to explain business fluctuations. Aggregate data collection and use (such as GDP, unemployment, inflation, money supply, and interest rates) are basic concepts. International trade or finance and policy-making at the national and international levels are important issues with perspectives grounded in macroeconomic principles. The real-side and the monetary-side of the economy are presented. (Prerequisites: College level reading and writing; MATH 1113 or 1115; ECON 2214, or permission of instructor). (4 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

ELECTRONICS

ELEC 1000   Introduction to Electronics
This is a foundation course aimed at helping participants to critically examine the field of electronics. The course provides an overview of AC/DC electricity, Electronics Digital Technology, Microcontrollers, Programmable Logic Controllers and Personal Computer construction. (Prerequisites: None). (4 C).

ELEC 1001   Electricity I: Electrical Quantities and Concepts
This course has been developed for students that can not attend class regularly, but want to learn the basic principles of Electricity. It is part one of a four part series that is the equivalent to ELEC 1005, Electricity I. The course will cover the Basic Concepts of Electricity, Electrical Quantities and Components, and Ohm's Law. (Prerequisites: High School Algebra). (1 C/.5 lect, .5 lab).

ELEC 1002   Electricity I: Basic Circuit Analysis
This course has been developed for students that can not attend class regularly, but want to learn the basic principles of Electricity. It is part two of a four part series, that is the equivalent to ELEC 1005, Electricity I. The course will cover the analysis of Series, Paralled, and Series Parallel circuits. (Prerequisites: ELEC 1001). (1 C/.5 lect, .5 lab).

ELEC 1003   Electricity I: Network Anaylsis
This course has been developed for students that can not attend class regularly, but want to learn the basic principles of Electricity. It is part three of a four part series, that is the equivalent to ELEC 1005, Electricity I. The course will cover the analysis of Maximum Power Transfer, Superposition, Thevenin's and Norton's theorems. The Loop, Mesh, and Nodal analysis techniques will be examined and verified. The conversion and analysis of Delta and Wye will be covered. (Prerequisites: ELEC 1002). (1 C/.5 lect, .5 lab).

ELEC 1004 Electricity I: Measuring Electrical Quantities

This course has been developed for students that can not attend class regularly, but want to learn the basic principles of Electricity. It is part four of a four part series, that is the equivalent to ELEC 1005, Electricity I. The course will cover the characteristics of Cells and Batteries, characteristics and applications of Magnetism and Electromagnetism, and the construction/operation/loading of Direct Current Measuring Devices. (Prerequisites: ELEC 1003). (1 C/.5 lect, .5 lab).

ELEC 1005 Electricity I

Students will learn the fundamental principles of dc analysis including Ohm's Law, Kirchhoff's Laws, Thevenin's and Norton's Theorem, Superposition Theorem, and Maximum Power Transfer Theorem. Capacitance, magnetic circuits, and inductance are introduced. Laboratory exercises which include the use of circuit simulation software are used to reinforce concepts presented in the classroom. (Prerequisites: None). (4 C/1 lect, 6 hours lab).

ELEC 1006 Electricity II: Basic AC Quantities and Measurements

This course has been developed for students that can not attend class regularly, but want to learn the basic principles of Electricity. It is part one of a four part series, that is the equivalent to ELEC 1010, Electricity II. The course will cover the basic Alternating Quantities that will include Alternating Current generation, Rate of Change, Sine-Wave signals, phase relationships, and other periodic waveforms. The background and proper operation of an Oscilloscope will also be covered. (Prerequisites: ELEC 1001). (1 C/.5 lect, .5 lab).

ELEC 1007 Electricity II: Inductive Reactance Analysis

This course has been developed for students that can not attend class regularly, but want to learn the basic principles of Electricity. It is part two of a four part series, that is the equivalent to ELEC 1010, Electricity II. The course will cover the characteristics of inductive circuits. Inductive circuits will be covered from a Direct Current and Alternating Current point of view. The basic operation of transformers will also be covered. (Prerequisites: ELEC 1006). (1 C/.5 lect, .5 lab).

ELEC 1008 Electricity II: Capacitive Reactance Analysis

This course has been developed for students that can not attend class regularly, but want to learn the basic principles of Electricity. It is part three of a four part series, that is equivalent to ELEC 1010, Electricity II. The course will cover the characteristics of capacitive circuits. Capacitive circuits will be covered from a Direct Current and Alternating Current point of view. (Prerequisites: ELEC 1007). (1 C/.5 lect, .5 lab).

ELEC 1009 Elec II: RLC Circuit Analysis

This course has been developed for students that can not attend class regularly, but want to learn the basic principles of Electricity. It is part four of a four part series that is equivalent to ELEC 1010, Electricity II. The course will cover RLC circuit analysis. (Prerequisites: ELEC 1008). (1 C/.5 lect, .5 lab).

ELEC 1010 Electricity II

Students will learn the fundamental principles of ac network analysis. Laboratory exercise which include the use of circuit simulation software are used to reinforce concepts presented in the classroom. (Prerequisites: ELEC 1005). (4 C/1 lect, 6 hours lab).

ELEC 1015 Electronics I

Students will learn the fundamental principles of semiconductor devices, including diodes, bipolar transistors, and field effect transistors (JFET's and MOSFET's). Applications such as amplifiers and switching circuits will be covered. Laboratory exercises are used to reinforce concepts presented in the classroom and to enhance the student's ability to make measurements using test equipment such as meters, function generators, and oscilloscopes. Circuit simulation software is also used in the course. (Prerequisites: ELEC 1005). (4 C/1 lect, 6 lab, 0 OJT).

ELEC 1020 Electronics II

Students will learn the fundamentals of operational amplifiers and study their applications along with the principles of feedback and frequency response. Other topics are the thyristor family, power supplies, and voltage regulators. Laboratory exercises which include the use of circuit simulation software are used to reinforce concepts presented in the classroom. (Prerequisites: ELEC 1015). (4 C/1 lect, 6 lab, 0 OJT).

ELEC 1025 Digital I

This course covers digital systems as they are analyzed through the use of Boolean Algebra. Flip flop circuits and arithmetic circuits are also covered. (Prerequisites: None). (4 C/1 lect, 6 lab, 0 OJT).

ELEC 1030 Technical Dos

This course will cover the different commands used in MS DOS, and using those commands in batch files, and config.sys. files. The course will also include the different applications that can be used to enhance the computer and how to rearrange the memory to increase operation of the computer system. (Prerequisites: None). (2 C/1 lect, 2 lab, 0 OJT).

ELEC 1035   Technical Windows

This course will cover the different applications that come with MS Windows. the software operation of the applications will be discussed which will include the parameters in the registry and how Windows uses these parameters. The networking of computers in a peer to peer configuration will be done by the students. (Prerequisites: None). (2 C/1 lect, 2 lab, 0 OJT).

ELEC 1040   Technical Works

This course will cover the different aspects of MS Works. The word processor, database, spreadsheet and communication packages will be discussed and how they can be integrated. (Prerequisites: None). (2 C/1 lect, 2 lab, 0 OJT).

ELEC 1041   Electronic Technician Applications

This course is designed for Electrical Apprenticeship Limited Energy Technician students. Emphasis will be on utilizing technology to complete electrical construction bids, estimate job costing, manage inventory, determine materials requirements and plan, manage and execute a project. (Prerequisites: None). (2 C/0 lect, 2 lab).

ELEC 1045   Visual Basic I

This course will be an introduction to using Visual Basic to create tools that can be used in Electronics. Visual Basic programs will be created to enhance the students programming skill and to create applications that can be used in their electronics career. (Prerequisites: None). (3 C/2 lect, 2 lab, 0 OJT).

ELEC 1050   Schematic Capture I

This course will cover the different computer software command that can be used to create schematics. The course will also introduce the student to the proper layout of schematic drawings. (Prerequisites: None). (2 C/1 lect, 2 lab, 0 OJT).

ELEC 1055   Electronics Shop

In this course students will learn concepts and techniques of electronic assembly. Each student will be expected to construct an electronic project selected by the instructor. Training includes weekly sessions in wire preparation, soldering, circuit board fabrication, component mounting, harness typing, chassis fabrication, safety procedures, and use of tools. (Prerequisites: Enrollment in Electronics program or permission of instructor and ELEC 1005). (1 C/ 0 lect, 2 lab, 0 OJT).

ELEC 1065   Introduction to Linux

This course covers the features and benefits of Linux and the essentials of installing, configuring, maintaining, administering, and troubleshooting the Linux Operating System. Comparisons with UNIX and Windows will be provided as appropriate. (Prerequisites: None). (2 C/1 lect, 1 lab).

ELEC 2005   Advanced Electronic Circuits

This course is offered to Electronics Engineering Technology students and to students desiring advanced concepts in electric network analysis. Students will solve systems of simultaneous equations derived from mesh and nodal analysis of complex dc and ac networks. Phasor notation is introduced and used in ac circuit analysis and in network theorems that were introduced in previous courses. Laboratory exercises which include the use of circuit simulation software are used to reinforce concepts presented in the classroom. (Prerequisites: ELEC 1010). (2 C/1 lect, 2 lab, 0 OJT).

ELEC 2010   Advanced Electronics

This course will cover topics primarily related to electronic measurements and instrumentation. Logic analyzers, digital oscilloscopes, and other digital instruments, including counters and digital multimeters will be studied and used in the laboratory. Time and frequency domain measurement techniques will be studied. (Prerequisites: ELEC 1020). (2 C/1 lect, 2 lab, 0 OJT).

ELEC 2015   Digital II

This course covers digital systems as they are analyzed through the use of Boolean Algebra. Jk-flip flops are used for counters and other sequential circuits. Memory systems along with analog to digital converters are analyzed. Introduction to computers concludes this course. (Prerequisites: ELEC 1025). (4 C/1 lect, 6 lab, 0 OJT).

ELEC 2020   Electronic Design

In this laboratory course students will design, build, and test an electronics project of their choice. Students are provided with the opportunity to apply design principles to an approved technical project. The student is involved with both the mechanical and the electrical design from breadboard to the finished unit. Emphasis is placed on design, component selection, wiring and fabrication, chassis design and preparation, construction technique, and testing procedures. Periodic records are kept of the student's progress and two written technical reports are required. (Prerequisites: ELEC 2015). (4 C/1 lect, 6 lab, 0 OJT).

ELEC 2025   Micro-Controller Fundamentals

This course will provide an introduction to microcomputer organization, hardware, and programming. Topics covered include addressing modes, subroutines, machine and assembly language programming, and the use of assemblers. (Prerequisites: None). (4 C/1 lect, 6 lab, 0 OJT).

ELEC 2030   Micro-Controller Applications
This course will cover microprocessor and microcontroller interfacing. Input/output hardware and programming will be studied in the classroom and the laboratory. Interrupts, interrupt service routines, programmable timers, and analog to digital converters and their applications will be studied and tested in the laboratory. (Prerequisites: ELEC 2025). (2 C/1 lect, 2 lab, 0 OJT).

ELEC 2035   Introduction to PC Construction
This course involves building desktop computers. The computer is constructed from boards. The installed boards include the motherboard, I/O card, Video card, floppy drives and hard drives are installed. After the completion of the hardware, a complete software system is installed in each computer that is constructed. (Prerequisites: ELEC 2025, ELEC 2030). (3 C/2 lect, 2 lab, 0 OJT).

ELEC 2045   Visual Basic II
The student is introduced to advanced programming using Visual Basic. Advanced programs will be both used and written by the student to demonstrate input/ output, looping and decision operations, data types and arrays. Emphasis will be on applications related to electronics and micro controllers embedded in electronic systems. (Prerequisites: ELEC 1025). (3 C/2 lect, 2 lab, 0 OJT).

ELEC 2055   Internship
This course will give the student the opportunity to apply their schooling in the workplace. They will be required to submit weekly activity reports back to their instructor. The activity report will be completed on a weekly basis by the students supervisor. The report will include work habits, skill knowledge, reliability, team participation, hours worked. (Prerequisites: ELEC 1025). (2 C/0 lect, 0 lab, 2 OJT).

ELEC 2060   Digital III
This course analyzes data bussing, digital encoding and decoding, analog to digital converters are examined along with memory systems. Introduction to computers concludes this course. (Prerequisites: ELEC 1025 and 2015). (2 C/1 lect, 1 lab).

EMERGENCY MEDICAL CARE

EMC 1121   EMS: First Responder
This course is designed for students who will be in law enforcement or in another position where they will be responding to emergencies and accidents. It includes CPR, vital signs and handling trauma to the musculoskeletal system and a variety of other emergencies listed in the course outline. Upon successful completion, participants are eligible for National Registry and State certification as a 1st Responder. (Prerequisites: Enrolled in Law Enforcement or consent of instructor and ENGL 0840).

EMC 1123   First Responder Refresher
This course is a 16 hour refresher class designed to update the currently certified First Responder. This course is designed to meet the requirements of the State of Minnesota EMS Regulatory Board (EMSRB) and the National Registry of EMT's. (Prerequisites: Current CPR card, EMC 1121 or equivalent). (1 C).

EMT

EMT 1200   Emergency Medical Technician: Basic
This course is the base training for most ambulance personnel, and a prerequisite for the RCTC Intensive Care Paramedic program. The topics covered include anatomy, patient assessment, medical emergencies, trauma, ambulance operations and the administration of medications carried on the ambulance, and many other skills listed in the course outline. The course is approximately 160 hours in length. Upon successful completion, participants are eligible for the National Registry of EMT's exam. (Prerequisites: College level reading or writing or successful completion of READ 0840 and ENGL 0910 and ENGL 0980. Current certification in Healthcare Provider CPR is also required). (9 C).

EMT 1210   Ambulance Operations for the EMT
This course is designed for practicing EMTs who desire additional formal education in EMS or are seeking admission to the paramedic program. The course will allow EMTs to enhance their knowledge, skills and abilities through a variety simulated patient encounters. (Prequisites: College level reading, Current EMT Certification, current BLS for the Healthcare Provider card, valid drivers license and ability to pass drivers license check in accordance with MNSCU polices. Special attention will be paid to the EMT variances authorized by the State of Minnesota).

EMT 2291   Specially Designed Independent Study
This is designed to provide the practicing Registered Nurse with the content need to prepare for the National Registry of EMT¿s exam. Under direction from the Minnesota EMS Regulatory Board, nurses need to be provided with the content of an approved Department of Transportation Refresher. The purpose of this content is to ensure that the nurse is prepared to function in the out of

hospital environment. The focus of the course is on material not generally covered in nursing education.

ENGLISH

ENGL 0910   Basic Grammar and Usage
In this course, students will learn basic sentence components including subject/verb identification and agreement, run-on sentences, fragments, correct verb form, correct pronoun usage, proper punctuation and capitalization, and parallel structure. This course provides a grammar review for those desiring a refresher course. (Prerequisites: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (2 C/2 lect, 0 lab).

ENGL 0930   English Basics
In this course, students will learn the basics of the writing process, including parts of speech, grammar and punctuation, and effective sentence structure. The aim of this course is to prepare students for the next course in the sequence, Writing Fundamentals. (Prerequisites: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/3 lect, 0 lab).

ENGL 0950   Writing Fundamentals
In this course students will learn the process of writing an effective paragraph, composing a strong topic sentence and selecting appropriate supporting details. Students will learn and demonstrate correct punctuation and usage of focusing on, for example, subject/verb agreement, pronoun agreement and comma usage. This course has a focus on writing as a recursive process with stategies for planning, drafting and revising their own work. The aim of this course is to prepare students for the next course in the sequence, Introduction to College Writing. (Prerequisites: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better, or ENGL 0930 with a grade of C or better). (3 C).

ENGL 0960   Introduction to College Writing
In this writing intensive course, students will advance their paragraph to essay writing skills. Students will examine professional and peer writing samples while learning to organize and develop their own writing ideas. A special emphasis will be placed on identifying and using appropriate grammar, usage and mechanics in the process of writing paragraphs and essays. The aim of this course is to prepare students for college-level writing. (Prerequisites: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better or ENGL 0950 with a grade of C or better). (3 C).

ENGL 0980   Introduction to College Writing: Sentence to Paragraph to Essay
In this course students will learn to write single paragraph and multi-paragraph essays, based on ideas gleaned from out-of-class readings and in-class discussions. The goal of this course is to provide students with the literacy skills needed to succeed in college-level courses. (Prerequisites: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C).

ENGL 1109   Introduction to Technical Communication
This course focuses on the types of writing found in business and technical settings. Students learn to plan, write, revise, and present a range of technical documents following the format and style guidelines of their profession. Textual and visual elements of design are studied and utilized, as well as internet-specific document design and presentation. Collaboration, communication in the professional setting, and technical documentation for the student's field of study are included. (Prerequisites: College level writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course(s) with grade of C or better). (3 C/3 lect, 0 lab). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking.

ENGL 1117   Reading and Writing Critically I
English 1117 introduces students to various writing strategies for both single and multiple-source essays. By critically reading and responding, students will practice expository, analytical, and persuasive modes of communication to develop critical thinking and writing skills, culminating in limited research projects. (Prerequisites: College level reading and writing skills: appropriate RCTC placement test score (Accuplacer Score: 85.5) or completion of appropriate developmental course(s) with a grade of C or better). (4 C/4 lect, 0 lab). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking.

ENGL 1118   Reading and Writing Critically II
English 1118 continues the development of writing skills begun in ENGL 1117 and concludes with emphasis on writing from multiple sources. This course fosters a deeper appreciation of language and literature by having students read, examine, and respond to a variety of literary works. A particular focus of this course is the development of the crucial skill of critical interpretation. Emphasis on the relationship between form and content will help students to formulate opinions and responses, forming the basis for their analytical and artistic judgments. Students will examine external resources, develop additional critical thinking skills, and analyze and synthesize texts by combining documented and textual evidence in a major research project. (Prerequisites: Completion of ENGL 1117 with a grade of C or better). (4 C/4 lect, 0 lab). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking.

ENGL 1121   Mythology & Ancient Legend

A study of the more important myths of classical literature with reference to the major archetypal patterns, as related to ways in which these have been transformed by various artists and authors. ((Prerequisites: Minimum reading and writing ASAP score of 27; or permission of instructor). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

ENGL 1125   Women's Perspectives

The focus of this course is on women¿s autobiography as a genre. Students will analyze autobiographical accounts of women from developing countries as well as the developed world that have used the various forms of autobiography to shape their own life stories and in doing so preserved their history and culture. This class is writing intensive. (Prerequisites: College level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

ENGL 1150   Introduction to Creative Writing

This course allows students to sample the several genres of creative writing. Students will explore introductory writing techniques applicable to creative writing, and will apply these skills to a few short projects in each genre. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ENGL 1630   English Grammar for Careers

This course uses an editorial focus to study and examine principles of language use; students review and refine the application of standard editorial principles. Students edit a variety of prepared texts representative of business, professional, and academic writing. Designed for practical application, this course allows students to refine those editorial skills they will apply in designing, editing, or transcribing documents in professional settings. Students learn the process for making informed language decisions; they learn to think their way through language applications. Students who take English 1630 must earn the appropriate score on the college entrance exam in order to take English 1117. (Prerequisites: College level reading and writing skills recommended). (3 C/3 lect, 0 lab).

ENGL 2230   Minnesota Writers

In this course students will read and discuss the writings of Minnesota authors, chosen for inclusion based on three criteria: the writer was born and raised in Minnesota and/or the setting is Minnesota, and, if fiction, the characters are recognizable as Minnesotan. Students will begin the semester defining the term Minnesotan. (Prerequisites: College-level reading/writing skills). (3 C). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ENGL 2251   Fiction Writing

This course emphasizes improving students' ability to read and critique fiction as aspiring writers and to write fiction. Other topics: Elements of fiction, Approaches to reading fiction as writers, and Process for generating ideas, writing, and revising. (Prerequisites: ENGL 1117 or ENGL 1917 and ENGL 1118 or ENGL 1918; or permission of instructor). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ENGL 2252   Writing Poetry

This course emphasizes improving students' ability to read and critique poetry as aspiring writers and to write poetry. Students learn to write in a variety of poetic forms and to experiment with language, sound, images and ideas. Students will learn a variety of processes for generating poetry, learn revision techniques, become more knowledgeable readers of poetry, and become more fluent in the language of poetry interpretation. (Prerequisites: ENGL 1117 and 1118, or instructor permission). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ENGL 2260   Literature: Topical Studies

This course focuses on a specific topic chosen by the instructor who teaches the class. It could focus on an author or a group of authors, a period, a literary genre, or a theme. Specific course content and number of credits will vary depending upon the nature of the course and may be repeated up to 9 credits for credit if the focus of the class is different. Examples: Literature of the 1920's, Afro-American Writers, Twentieth Century Poetry, or Literature of the American Frontier. (Prerequisites: ENGL 1118 recommended; college level reading, writing skills). (1-4 C/1-4 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity. FOCUS FOR SUMMER 2013: Dracula and Other Vampire Literature is a survey course concentrating on the role of the vampire in Western fiction and literature. Using Bram Stoker's Dracula as the focal point, this course will look at the folklore, history, and other literature that influenced Stoker's work. This course will also look at subsequent works of fiction and film that have been influenced by Dracula. Assignments for this course will give students practice in literary analysis and interpretation, plus students will learn about the rich literary, cultural, and symbolic background of a topic many know more as a popular culture phenomenon. Besides Dracula, readings may include works of folklore from Romania, Russia, Germany, other European countries, and other parts of the world; the history of Vlad Dracula (Vlad the Impaler), the 15th century Wallachian prince that Stoker used as a model for his title character; pre-Dracula vampire works by authors such as John Polidori and Sheridan le Fanu; and contemporary vampire fiction by authors such as Anne Rice, Stephanie Meyer, and Elizabeth Kostova. FOR VAMPIRE LIT: (Prerequisites: ENGL 1118 recommended; college level reading, writing skills). (3 C/3 lect, 0 lab). MNTC: Goal

2/CT, Goal 6/HA, Goal 7/HD.

ENGL 2261   Literary Magazine Publication Lab
This course provides students with practical experience in designing, editing, and publishing the Yellowjacket Review, the student literary magazine. Students will gather and review submissions, provide editorial support, design and lay out the magazine, publicize it, and organize a literary reading/launching. (Prerequisites: None). (1 C).

ENGL 2273   Early American Literature
This course is a survey of American Literature from its beginnings to the time of the Civil War. Representative authors may include Bradstreet, Wheatley, Taylor, Freneau, Paine, Bryant, Hawthorne, Cooper, Emerson, Jacobs, Dickinson, Douglass, and others. (Prerequisites: ENGL 1118 or ENGL 1918 recommended; college level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

ENGL 2274   Modern American Literature
This course is a survey of American Literature from the Civil War to contemporary times. Representative authors may include Whitman, Twain, Dunbar, Chopin, Du Bois, Pound, Williams, Eliot, Moore, Hughes, Ginsberg, Morrison, and others. (Prerequisites: ENGL 1118 or 1918 recommended; college level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

ENGL 2275   Asian-American Literature
This course will focus on the development of Asian-American literature as a specific genre that grew out of the immigrant experiences of the Chinese, Japanese, Filipino, Korean, and other Asians who have helped to shape American society and culture. (Prerequisites: ENGL 1118 or 1918 recommended; college- level reading, writing skills). (2-3 C/2-3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

ENGL 2276   Best Sellers
This course examines the definitions, history, and patterns of "best sellers". The effect of films made from books and of publicity generated by media - such as Oprah's book club - will be discussed. Students will evaluate and analyze the scope and variety of best sellers with special attention to the diversity, or lack of diversity preresented in best sellers. This course is writing intensive. (Prerequisites: College level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

ENGL 2277   Women and Literature
This course focuses on literature by and/or about women. Course content will revolve around questions such as these: What are the images of women in literature? How can feminist literary criticism help us to analyze literary texts? How has women's literature been marginalized? How are women's identities and experiences incorporated in literary texts? What can we learn about the different approaches to the human condition by reading works by women? While these critical questions remain the same, the particular course content, which will vary from year to year, including such sub-titles as "Women & the Development of the Novel," "Images of Women in Fiction," or "Afro-American Women Writers." Course may be repeated twice for credit if the focus of the class is different. (Prerequisites: ENGL 1117). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

ENGL 2284   Literature and the Environment
Students will read and examine a number of primary texts in order to explore answers to a key question-How shall we live? In order to develop an appreciation and awareness of environmental literacy from a multicultural perspective, students will be introduced to a wide variety of texts that have influenced our understanding of the natural world. Students will also be encouraged to reconnect with the natural world through field trips, field work, and/or service learning projects. (Prerequisites: None; College level reading and writing skills recommended). (3 C/3 lect). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 10/People and the Environment.

ENGL 2297   Survey of Children's Literature
The course will survey children's literature from the preschool to preteen years. Standards for critical evaluation will evolve through extensive reading, discussion, research, and writing. Course content will focus on the history of children's literature and criteria for selecting and evaluating different genres within literature for children, including the following: picture books, traditional literature, modern fantasy, poetry, contemporary fiction, historical fiction, and multicultural literature. (Prerequisite: ENGL 1117 or 1917 or instructor permission; ENGL 1118 recommended). (3 C/3 lect). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

ENGL 2298   Adolescent Literature
Adolescent Literature is a study of literature written for and read by young adults, approximately between the ages of 12-18. In addition to studying specific works of literature, both classic and contemporary, the course also examines reading programs, the characteristics of specific literary genres, and approaches to those genres. Students will consider the developmental stage we call ¿adolescence¿, whether this stage has changed significantly with recent societal changes, and how literature may reflect and/or

support those changes. (Prerequisites: College level reading). (MNTC: Goal 2, 6, 7). (3 C).

ENGL 2870   Tutoring Writing: Theory and Practice

This course introduces students to the theory and practice of tutoring writing at a variety of levels and in multiple disciplines. Students learn basic composition theory, tutoring and conferencing methods, and writing center practice. Completion of this course qualifies a student to work as a Writing Coach in the UCR Learning Center. (Prerequisites: ENGL 1117). (1 C/1 lect).

ENGL 2978   The Bible as Literature: Honors

This course will focus on literary interpretation of the Bible with discussions about tradition, history, culture, politics and religion. Students will study both Old and New Testament books and their many genres. The course may also include some or all of the following: sections of the Koran, Greek mythology and non-canonized, ancient, religious texts, and some works from contemporary popular culture. Students will also be introduced to literary theory and criticism and analyze the texts through political, philosophical and theoretical frameworks. Students will get a chance to examine the incredible influence these texts have had both throughout history and still currently in American culture. (Prerequisites: ENGL 1117). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

ENGINEERING

ENGR 1152   Logic Design

This course covers fundamental digital circuit design. Topics include truth tables, Boolean algebra, Karnaugh maps, logic gates, digital devices, sequential systems, flip-flops, counters, and design involving these elements. The accompanying laboratory provides hands-on experience designing, building, and testing digital circuits. College level reading and writing skills are required. (Prerequisite/Co-Requisite: MATH 1115). (4 C/3 lect, 0 lab).

ENGR 1153   Microprocessors

This course is the study of programmable logic devices, member devices, microprocessors, input/output for a microprocessor and peripheral devices, interrupt driver input/output, and design of microprocessor-based systems. The accompanying integrated laboratory allows study of the operating characteristics of microprocessors. The course is intended to be a lower division course for those majoring in electrical engineering. College level reading and writing skills are required. (Prerequisites: ENGR 1152 or permission of instructor). (4 C/3 lect, 2 lab).

ENGR 2211   Statics

This course is the study of rigid body dynamics in equilibrium. Topics include forces and moments in three dimensions, the equations needed to solve these systems, and the analysis of structures, trusses, frames, mechanisms, statically determinate beams and cables. The nature and influence of friction on a static system is studied. Three dimensional vector analysis and integral calculus are used. College level reading and writing skills are required. (Prerequisites: PHYS 1127, MATH 1127. Co-requisite: MATH 1128). (3 C/3 lect, 0 lab).

ENGR 2212   Dynamics

This course is the study of rigid body dynamics in fixed and rotating systems, including the analysis of systems moving with linear accelerations and/or angular accelerations to determine the reaction forces and moments of force acting on the various components of the system. The time dependent analysis of vibrating/rotating systems is studied. Extensive use is made of vector analysis and calculus. College level reading and writing skills are required. (Prerequisites: MATH 1128, PHYS 1127, ENGR 2211). (3 C/3 lect, 0 lab).

ENGR 2213   Linear Circuit Analysis I

This course is a study of linear circuits, wherein techniques for the solution and ultimate understanding of electric circuits are studied. Topics include mesh analysis, nodal analysis, Thevinin's and Norton's methods for source transformations, equivalent circuits, natural and step response to RLC circuits, sinusoidal steady state analysis with phasors, and three phase power. The accompanying integrated laboratory allows students to study, measure, and troubleshoot these circuits. College level reading and writing skills are required. (Prerequisites: MATH 1128, PHYS 1128). (4 C/3 lect, 2 lab).

ENGR 2214   Linear Circuit Analysis II

This course is a study of linear circuits. The more rigorous methods for the solution and ultimate understanding of electric circuits are studied, including the methods of Laplace transforms and Bode diagrams. Complex circuits involving filters are studied. Operating characteristics of semiconductor devices are explained. The accompanying integrated laboratory allows students to study, measure, and troubleshoot these circuits. The course is intended to be a lower division course for those majoring in electrical engineering. College level reading and writing skills are required. (Prerequisites: ENGR 2213 and concurrent enrollment in MATH 2238 or permission of instructor). (4 C/3 lect, 2 lab).

ENGR 2221   Deformable Body Mechanics

This course includes the study and analysis of simple stress and strain, shear and bending moment, flexural and shearing stresses

in beams, combined stresses, deflection of beams, statically indeterminate members, and columns. (Prerequisite: ENGR 2211). (3 C/3 lect, 0 lab).

EQUINE SCIENCE

EQSC 1100   Introduction to Equine Science
This course provides students with the foundational knowledge and theory needed to complete other Equine coursework. This course introduces the student to the basics of equine evolution/history, breeds and types of horses, anatomy and physiology, conformation and movement, equine psychology/behavior, health care, nutrition, and management. (Prerequisites: None). (3 C).

EQSC 1101   Light Horse Management Theory
This course includes fundamentals of caring for horses, their environment, nutrition (including feeds and feeding), behavior, and disease management. It introduces the student to management practices including stable design, health care, deworming, vaccinations, pasture maintenance, body condition scoring, and record keeping. This course involves field trips to local stables. (Co-Requisite/Prerequisites: EQSC 1100). (3 C).

EQSC 1102   Horse Handling and Training
This course introduces the student to the principles of handling the horse, equine behavior and body language, behavior modification, lunging, ground driving techniques, and training theory. This course introduces the major theories/philosophies of training as well as tack and aids for handling and training. This course involves field trips to local barns as well as a practicum component in the college stable. Recommended Entry Skills/Knowledge: High school diploma or GED. (Prerequisites: None). (3 C).

EQSC 1103   Equine Anatomy, Physiology and Disease Management
This course provides an overview of equine anatomy, physiology, and disease management. This course allows students to learn about biological aspects of the horse, relates anatomy and physiology to management and performance issues, and builds on the student's knowledge of horse husbandry by providing in-depth information about health management, disease prevention, and parasite control. (Prerequisites: None). (3 C).

EQSC 1104   Basic Horsemanship
This course introduces the student to the basics of horsemanship. This course allows students to learn the fundamentals of handling, grooming, tacking up and riding in both the English and the Western saddle. Recommended Entry Skills/Knowledge: High school diploma or GED. Completion of or currently enrolled in EQSC 1100. (Prerequisites: None). (2 C/1 lect, 1 lab).

EQSC 1105   Colt Starting
This course introduces the student to the principles of starting the young horse on a riding program, beginning with the groundwork stage and progressing to the near finished show prospect. Warm-up exercises, sacking out, and basic skills/control for flatwork will be reviewed. This course includes appropriate leg support for level of riding and correct equipment selection and use. This course involves field trips to local barns as well as a practicum component in a stable. (Prerequisites: A grade of C or better in EQSC 1100, EQSC 1101, EQSC 1112 or 1116). (4 C).

EQSC 1106   Equine Reproduction
This course introduces the student to the management of the breeding stallion, reproducing mare, and newborn foal. This course involves anatomy and endocrinology of the reproductive system, insemination of the mare, spermatogenesis, behavior management, cooled semen and frozen semen techniques. (Prerequisites: EQSC 1100, 1101). (3 C).

EQSC 1107   Farrier Science
This course introduces the student to equine anatomy and physiology, form to function, proper hoof care, and lameness. This course involves fundamentals of basic and corrective trimming and shoeing the hoof. (Prerequisites: EQSC 1100, 1101). (3 C).

EQSC 1108   Stable Management Skills
This course introduces the student to the basic principles of the hands-on techniques required in horse care. This course includes taking the vital signs of the horse, identifying lameness, first aid techniques, advanced grooming, braiding, and banding, and bandaging. The course involves fieldtrips to local barns as well as a practicum component in the college stable. Recommended Entry Skills/Knowledge: High school diploma or GED. Grade of C or better in the following courses: EQSC 1100; EQSC 1101. (Prerequisite: EQSC 1100). (3 C).

EQSC 1109   Horse Selection & Judging
This course introduces the student to the basic principles of the evaluation of light horses. This course includes the evaluation of breeding, halter and performance horses of the major breeds and types and teaches a comparative system for judging that include terminology, note-taking, and an oral defense of the selection. The course involves mock judging, field trips to local barns and shows. Participation in a judging contest or certification clinic may be an option. (Prerequisites: EQSC 1100, 1101). (3 C).

EQSC 1110   Western Horsemanship I
This course introduces the student to the basics of western horsemanship. This course allows students who are novice-level riders or new to stock seat riding to learn correct western position while improving control of the horse and use of the aids. The focus is on developing safe, confident riders who are secure in the saddle. (Prerequisites: EQSC 1104 or a riding placement test or permission of instructor). (3 C).

EQSC 1111   Western Horsemanship II
This course builds on skills developed in Western Horsemanship I. Students improve their position and control, refine their use of the aids, and focus on riding with collection. The focus is on increasing the riders' balance, rhythm and "feel" at all three gaits. This class may include trail class exercises. (Prerequisites: EQSC 1110 or a riding placement test, or permission of the instructor). (3 C).

EQSC 1112   Western Horsemanship III
This course builds on skills developed in Western Horsemanship II. Students learn more advanced pattern work and lateral movements. The focus is on developing a stronger, tighter position and more effective communication with the horse, to achieve a more empathetic, harmonious ride. The course may include an introduction to reining or working cow horse events. (Prerequisites: EQSC 1111, a riding placement test, or permission of the instructor). (3 C).

EQSC 1115   Hunt Seat Equitation I
This course introduces the student to the basics of hunt seat equitation-the forward seat. This course allows students to learn correct hunt seat position at the walk, trot and canter while improving control of the horse and use of the aids. The focus is on developing safe, confident riders who are secure in the saddle. This class might utilize ground poles or small jumps. Recommended Entry Skills/Knowledge: High school diploma or GED; Grade of C or better in EQSC 1104; or some experience and/or instruction in either western or hunt seat riding. (Prerequisites: Basic Horsemanship or permission of the instructor). (3 C/1 lect, 2 lab).

EQSC 1116   Hunt Seat Equitation II
This course develops the skills learned in Hunt Seat Equitation I. Students improve their position and control, refine their use of the aids, and begin cantering work and riding on-contact. The focus is on increasing the rider's balance, rhythm and "feel" at all three gaits. This class may utilize cavalettis and low jumps. (Prerequisites: EQSC 1115 or permission of the instructor). (3 C/1 lect, 2 lab).

EQSC 1117   Hunt Seat Equitation III
This course builds on skills developed in Hunt Seat Equitation II. Students learn more advanced flatwork while developing a more educated hand, leg, seat and eye. The focus is on developing a stronger, tighter position and more effective communication with the horse, to achieve a more empathetic, harmonious ride. This class utilizes jumps. Recommended Entry Skills/Knowledge: High school diploma or GED. Grade of C or better in EQSC 1116; or commensurate level of riding. (Prerequisites: EQSC 1116 or permission of the instructor). (3 C/1 lect, 2 lab).

EQSC 1119   Horse Judging II
This course builds on the foundation of basic halter and performance evaluation skills gained in EQSC 1109. This course includes the evaluation of more complex and specialized areas like equitation, horsemanship, jumping, trail, and western riding, and teaches scoring systems for judging a variety of English and western performance classes. The course involves mock judging and fieldtrips to local breeding and show barns. Participation in a judging contest or certification clinic may be an option. (Prerequisites: EQSC 1100 and 1109). (3 C).

EQSC 1120   Equine Business Practices
This course introduces the student to the equine industry. It includes career exploration and planning and prepares students to run or manage an equine-related business. The course also involves the development of a fictional business. (Prerequisites: EQSC 1100, 1101). (3 C).

EQSC 1122   Horse Nutrition
This course includes fundamentals of equine nutrition, feed selection, digestive anatomy, ration formulation, toxic substances, and hay production. It builds on the basics of horse nutrition from EQSC 1101 and increases knowledge about how the digestive system works, how to balance a ration, and how to read a feed label. (Prerequisite: Completion of EQSC 1100 and 1101, permission of instructor). (3 C).

EQSC 1124   Dressage Concepts
This non¿riding course introduces the student to the basic concepts of dressage theory and performance. The student will learn about training, competition, scoring, and movements involved in riding and showing the dressage horse. Equitation, tack, equipment, and the arena are also covered in this course. This course prepares students to appreciate and understand dressage as a training system and discipline. (Prerequisites: None). (3 C).

EQSC 1166   Hoof Care and Management
This course will introduce the student to horse hoof care, management, and the basics of farrier science. Students will learn about

hoof anatomy, common hoof disorders and conformation, how to tell if the hoof is well balanced, as well as farrier tools and methods. This course may include field trips. (Prerequisites: EQSC 1100). (1 C/1 lect, 0 lab).

EQSC 1177   Introduction to Equine Reproductin
This course will introduce the student to basic reproductive management in horses. The focus will be on anatomical structures of the mare, stallion as well as the management and manipulation of the endocrine system as it relates to reproduction. Estrous cycles, parturition, breeding methods, and diseases will also be covered. (Prerequisites: EQSC 1100; Co-Requisites: EQSC 1100). (1 C/1 lect, 0 lab).

EQSC 1188   Current Topics in the Horse Industry
This course will explore current issues that are relevant to the horse industry. The course will include newsworthy, controversial, scientific, and/or political topics. The course will also cover the major organizations within the horse industry (i.e. USEF, AQHA, FEI, NRHA). (Prerequisites: None). (2 C/2 lect, 0 lab).

EQSC 1515   Equine Therapy Concepts
This course will introduce the student to ways in which horses are used in therapy and personal development programs. Content includes, but is not limited to the study of hippotherapy (physical therapy), equine assisted learning and psychotherapy, and riding for the handicapped. Course might involve service learning, such as self directed field trips to local equine therapy program sites. (Prerequisites: None). (3 C).

EQSC 2100   Equine Science Co-op Program
This off-campus learning experience is designed to provide the student with occupational experience in the equine field to prepare them for future employment. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. The work will generally involve the day-to-day work with horses and equestrian facilities, which may include feeding, turn out, stall cleaning, handling horses, and facility maintenance. One credit of co-op is equal to 16 hours of on-the-job training. (Prerequisites: EQSC 1100, and either EQSC 1108 or 1104). (1 C).

EQSC 2220   Teaching Techniques
This course introduces the student to the teaching of riding. This course allows students to learn about teaching techniques, school horse management, lesson planning, and professional considerations, as they apprentice as riding instructors in either hunt seat or western lessons. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: High school diploma or GED, extensive riding experience, grade of C or better in the following courses: EQSC 1100, EQSC 1101, EQSC 1108, grade of B or better in either EQSC 1112 or EQSC 1117, and EQSC 2221 highly recommended. (Prerequisites: EQSC 1112 or EQSC 1117 or permission of instructor). (4 C/1 lect, 3 lab-equivalents to 7 hours per week).

EQSC 2221   Schooling/Re-schooling Horses
This course introduces the student to the schooling and re-schooling of horses as they learn to apply theory and technique to a western or hunt seat horse. Students work with a project horse on a consistent basis, establishing goals, creating a training plan, and carrying it out under instructor supervision. This course requires collaboration. Pairwork for observation, videotaping, and "test rides" allow students to chart progress and document results. (Prerequisites/Corequisite: EQSC 1102; EQSC 2110 or 2111; or permission of the instructor). (4 C).

EQSC 2222   Equine Riding/Training Internship
This course provides the student with practical application of theories learned during their course work. Under the supervision of a mentor in the horse industry, students will gain practical experience at a riding or training facility. Students will be required to meet written goals and objectives and undergo evaluations from their supervisor. (Prerequisites: Completion of EQSC 1105 and either 1117 or 1112, or permission of instructor). (3 C).

EQSC 2223   Equine Horse Husbandry Internship
This course provides the student with practical application of theories learned during their course work. Under the supervision of a mentor in the horse industry, students will gain practical experience at an equestrian facility. Students will be required to meet written goals and objectives and undergo evaluations from their supervisor. (Prerequisites: Completion of EQSC 1101, 1102, 1108, 1109, and 1106, or permission of the instructor). (3 C).

EARTH SCIENCE

ESCI 1004   Earthquakes and Volcanoes
This course examines the causes and effects of earthquakes and volcanic activity. It also covers the impacts of earthquakes and volcanic eruptions, including secondary effects such as landslides, mudflows, and tsunamis; climatic effects; energy/mineral resources; and social disruption. Additionally, the mitigation of effects of natural disasters will be included. Two lectures and one laboratory per week. (Prerequisites: None; 12th grad reading and writing skills recommended). (3 C/2 lect, 2 lab hrs per week).

MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.

ESCI 1101   Principles of Geoscience
This course explores our planet and how it works. It surveys basic concepts of shifting tectonic plates, deep geologic time, earthquakes, volcanic eruptions and the nature of rocks and minerals. Laboratory exercises will introduce students to the methods of geoscience and will supplement the lectures. Non-science majors will benefit from this course. (Prerequisites: None). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.

ESCI 1114   Physical Geology
This course is an introduction to the fundamental processes that shape Planet Earth. We examine the influence of geological processes on humankind. Emphasis is placed on plate techtonics as a framework for understanding these processes. In this course, we explore the rock cycle (minerals, rocks, volcanoes, weathering) and investigate deep geologic time. Students will strive to understand the forces that shape our world such as glaciers, rivers, groundwater, earthquakes, and tsunamis. We experience the beauty of places like deserts, coasts, and mountains. Laboratory exercises introduce the methods of geology and reinforce lecture material. Field trips to significant geological localities are an important part of the course. (Prerequisites: Appropriate score on RCTC placement test with needed score into developmental reading). (4 C/3 lec, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment

ESCI 1124   Solar System Astronomy
This course is a survey of the solar system. It includes study of the Earth and Moon, the planets and their satellites as well as asteroids, meteors and comets. Study includes the history of astronomy from ancient times leading up to our modern view of the sun and planets. Topics include light and telescopes, planetary surfaces and atmospheres, the origin of planetary systems and the search for life in the universe. Students will also be introduced to striking beauty of our solar system as revealed through photographs, written work and direct experience through the telescope. Lab work is supplemented by astronomical observations at the RCTC observatory. (Prerequisites: Appropriate score on RCTC placement test with needed score into developmental reading). (4 C/3 lec, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

ESCI 1134   Stellar Astronomy
This course is an introduction to stellar astronomy for the non-science major. The course covers topics that include light spectra, the sun, stars, galaxies, supernovae, black holes and the Big Bang. In addition, students will be introduced to the stunning beauty of the universe as revealed in images, written works and direct experience through the telescope. Laboratory exercises introduce students to the methods astronomers use to study the universe. Lab work is supplemented by astronomical observing sessions at the RCTC Observatory. NOTE: ESCI 1134 and PHYS 1134 are cross-listed. Students may take one or the other for credit, but will not receive credit for both. (Prerequisites: Appropriate score on RCTC placement test with needed score into developmental reading). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

ESCI 1144   Introduction to Environmental Geology
This course examines the relationship between geology and short-term human concerns (periods of no more than a few hundred years). Topics include earthquake hazards, volcanoes, flooding, landslides/mass wasting, groundwater and surface water problems, radioactive waste disposal, energy and mineral resources and radon. Environmental issues and effects on society are a major focus.(Prerequisites: Appropriate score on RCTC placement test with needed score into developmental reading). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

ESCI 1154   Introduction to Meteorology
This course will introduce students to our atmosphere and how variables in the atmosphere affect our daily and seasonal weather patterns. Students will gain an understanding of how weather occurs and how the atmosphere affects us individually and as a society. Other topics include tornadoes, hurricanes, air pollution and climate change. This course contains a lab-like component. (Prerequisites: Test into developmental English). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.

FRENCH

FREN 1001   French Culture in a Global Context
This course, taught in English, is an introduction to the cultures of French-Speaking countries in Europe, Africa, Asia, and Oceania. Curriculum will focus on French civilization via the arts, literature, history, and social institutions. Emphasis will be on the development of cultural sensitivity and global perspective by comparing and contrasting one's own culture with the diverse cultures of francophone people worldwide. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

FREN 1101   Beginning French I
This course is an introduction to the fundamentals of French language and culture within the context of daily life in French-speaking regions worldwide. Communication skills include: speaking, listening, reading and writing. Sensitivity to culture

differences is emphasized. Designed for the student with NO previous foreign language study. This course uses audio, video, text website, and news media. (Prerequisites: None). (4 C/4 lect, 0 lab). MNTC: Goal 8/Global Perspectives.

FREN 1102   Beginning French II
This course is the conclusion of the introduction to fundamentals of French culture and language skills, including speaking, listening, reading, and elementary creative writing, with an emphasis on awareness and sensitivity to cultural differences. The course is taught in French and uses text, audio and video, as well as websites and news of some of the 44 Francophone communities in the world. (Prerequisites: FREN 1101 or equivalent). (4 C/4 lect, 0 lab). MNTC: Goal 8/Global Perspectives.

FREN 1111   French Conversation Topics
Development of French conversational skills (pronunciation, vocabulary, expansion and correct structure usage) based on multiple media, such as current events, magazine and news articles, poetry, film, music and art from Francophone communities throughout the world. Course content varies each semester so that course may be repeated for additional language practice. (Prerequisites: FREN 1101). (2 C/2 lect, 0 lab).

FREN 2101   Intermediate French
Short literary forms (poetry, short stories, excerpts from novels or theater), and authentic texts such as songs and news articles are basis for reading, speaking, interpretation, vocabulary development and writing practice . Review/expansion of selected structure topics. Emphasis on discovering cultural, social, religious and linguistic values and differences within a Francophone cultural context. (Prerequisites: 1 yr college, 3-4 years of high school French or equivalent). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

FREN 2102   Intermediate French II
Intermediate French continued. Short literary forms such as poetry, short stories, excerpts from novels or theater, and authentic media such as news articles, music and art are basis for reading, interpretation, speaking, vocabulary development and writing practice (75%). Review/expansion of selected structure topics. Emphasis is on discovering cultural, social, religious and linguistic differences within a Francophone cultural context. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: Qualify for Beginning College English One year college, three years high school French or equivalent experience is required. (Prerequisites: 1 year college, 3-4 years of high school French or equivalent). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

FIRST YEAR EXPERIENCE

FYEX 1000   College Success Strategies
This course introduces proven strategies and applications to help students create greater success in college and life. Provides an active environment for students to identify and engage choices that promote responsibility, motivation, inter-dependence, self-awareness, and persistence for academic and career decision-making. Students will also explore and use campus resources and services. (Prerequisites: None). (1 C).

GREEN ENERGY MANAGEMENT

GEM 1000   Residential Green Energy Management Theory
This course covers the latest theories and principles of green energy in residential HVAC systems. High efficiency gas furnaces, high efficiency oil furnaces, high efficiency hot water boilers, air source, geothermal heat pumps, and residential solar and wind technology theory are identified and explained. (Prerequisites: Successful completion of BU II, BU III, and BU IV courses or background in residential HVAC systems or instructors permission. Co-requisites: Enrollment in GEM 1010). (4 C).

GEM 1010   Residential Green Energy Management Lab
This course provides lab work and applications that cover the latest theories and principles of green energy in residential HVAC systems. Lab components will include high efficiency gas furnaces, high efficiency oil furnaces, high efficiency hot water boilers, air source, geothermal heat pumps, and residential solar and wind technology applications. (Prerequisites: Successful completion of BU II, BU III, and BU IV courses or background in residential HVAC systems or instructors permission. Co-requisites: Enrollment in GEM 1000). (4 C).

GEM 1100   Commercial Green Energy Managment Theory
This course covers the latest theories and principles of green energy savings in commercial HVAC systems. HVAC automated control systems principles, commercial lighting for energy savings, commercial heat loss analysis, commercial alternative energy sources, hybrid systems conversions to electronic control, commercial solar and wind technology theory are identified and explained. (Prerequisites: Concurrent of successful completion of BU III and BU IV courses or a similar HVAC program or background in a commercial HVAC system operation with instructors permission. Co-requisites: Enrollment in GEM 1110). (4 C).

GEM 1110   Commercial Green Energy Management Lab

This course provides lab work and applications to the latest theories and principles of green energy savings in commercial HVAC systems. Lab components include commercial green energy, HVAC automated control systems, commercial lighting for energy savings, commercial heat loss analysis, commercial alternative energy sources, hybrid control systems conversions to electronic control, commercial solar and wind technology applications. (Prerequisites: Concurrent of successful completion of BU III and BU IV courses or a similar HVAC program or background in a commercial HVAC system operation with instructors permission. Co-requisites: Enrollment in GEM 1100). (4 C).

GEOGRAPHY

GEOG 1614   Human Geography

An introductory study of the human geography of the world in terms of the spatial distribution of cultural and physical phenomena, and a philosophical analysis of the interrelationships of those elements. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

GEOG 1615   Economic Geography

A study of the spatial distribution of global economic activities, and the cultural and physical influences on economic systems. Simple and complex systems will be analyzed, as will resource use and abuse, ecological factors, and international relations. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

GERMAN

GERM 1001   Life & Culture in the German Speaking Countries

An introductory survey of various topics related to life, language, culture, and civilization in the German-speaking countries with an emphasis on Germany. Students will begin to develop an appreciation for the history, arts, and culture in those countries, in addition to an understanding of various aspects of current daily life. (Prerequisites: None). (2 C/2 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

GERM 1101   Beginning German I

This course is an introduction to the fundamentals of the German language and culture, including comprehension, speaking, reading, writing, and a perspective on German-speaking countries and regions. Conversation, grammar, audio and video materials, short readings, computer work, and cultural topics are all a part of this course. For students with very little or no previous experience with the German language. (Prerequisites: None). (4 C/4 lect, 0 lab). MNTC: Goal 8/Global Perspectives.

GERM 1102   Beginning German II

This course is a continuation of the introduction to the fundamentals of the German language and cultures begun in German 1101, including comprehension, speaking, reading, writing and a perspective on German-speaking cultures. Conversation, grammar, audio and video, short readings, computer work, and cultural topics are all a part of the course. (Prerequisites: GERM 1101 or equivalent). (4 C/4 lect, 0 lab). MNTC: Goal 8/Global Perspectives.

GERM 1130   German in Business

An introduction to German as it is used in offices and businesses. Emphasis is on communicative skills such as understanding simple spoken and written business German, using the telephone, making arrangements, etc. Vocabulary development and a basic grammar review are included. Each student will research a company from a German-speaking country. (Prerequisites: Successful completion of GERM 1101 or 2-3 year of high school German). (2 C/2 lect, 0 lab).

GERM 2101   Intermediate German I

The course focuses on authentic cultural, historical and literary texts in German for reading, interpretation, speaking and writing practice. These authentic texts include original newspaper and magazine articles, advertisements, letters, graphs, tables, brochures, short stories, fairy tales, songs, and poems. Selected grammar topics are reviewed and/ or expanded. Supplemental activities include use of videotapes, audio tapes, and computers. (Prerequisites: A. Successful completion of GERM 1102 or 3-4 levels of high school German. B. Reading level 2, Writing level 2, or instructor's permission in special cases. (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

GOLF MANAGEMENT

GFMT 1110   Foundations of Golf Management

The course focuses on authentic cultural, historical and literary texts in German for reading, interpretation, speaking and writing practice. These authentic texts include original newspaper and magazine articles, advertisements, letters, graphs, tables, brochures, short stories, fairy tales, songs, and poems. Selected grammar topics are reviewed and/ or expanded. Supplemental activities include use of videotapes, audio tapes, and computers. (Prerequisites: A. Successful completion of GERM 2101 or equivalent experience. B. Reading level 2, Writing level 2, or instructor's permission in special cases. (3 C/3 lect, 0 lab). MNTC: Goal 2/CT, Goal 8/GP.

GFMT 2294   Golf Internship Management
Work experience program to help Golf Management students apply classroom information on the job. Designed to make the work experience a learning experience so the student will be able to advance into a management position. Student may enroll in class more than once if the second internship provides a different experience than the first. (Prerequisites: Major in the Golf Management program). (6 C/30 hours of work experience per semester credit).

Health Care Core Curriculum

HCCC 1120   Advanced Phlebotomy Techniques
This course will focus on continued skill development and knowledge, in the areas of special blood specimen collection (pediatric, blood cultures, arterial specimens, etc), sample preparation, and laboratory safety. The class includes hands-on phlebotomy skill development with student laboratory partners through venipuncture and skin puncture (capillary) sampling methods as well as demonstrations/simulations. An overview of point-of-care testing and IV placement is presented in preparation for hands-on instruction and practice in the clinical setting during Phlebotomy Clinical Practice. (Prerequisites: None). (2 C).

HCCC 1200   Introduction to the Clinical/Research Laboratory
This is course is for students currently employed in or ultimately seeking employment in a clinical or research laboratory with a health care focus. This course is specifically designed for students in the Biomedical Technologist programs at RCTC. The goal of this course is to familiarize the student with key confidentiality, documentation, and safety issues encountered when working with patient samples in a clinical or research laboratory. (Prerequisites: College level reading and writing. Co-requisites: BIOL 2020). (2 C/2 lect, 0 lab).

HEALTH INFORMATION MANAGEMENT CAREERS

HIMC 1800   Legal Aspects of Health Information
This course covers the application of legal principles, policies, regulations, and standards for the control and usage of consent and release of Information forms used in medical facilities. Ethical and bioethical practices will be explored. An overview of current health legislation will be included. (Prerequisites: BTEC 1001, online tutorial or the instructor¿s permission is required when the course is offered online, HIMC 1840, College level reading skills, appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/2 lect, 1 lab).

HIMC 1810   ICD-9-CM Coding
This course provides a study of the International Classification of Disease (ICD-9-CM) codes, using sample exercises and medical records to develop skill and accuracy in coding in various health care settings. Students will apply ICD-9-CM coding guidelines appropriate to the coding situation. (Prerequisites: BTEC 1001, online tutorial or the instructor's permission is required when the course is offered online. BTEC 1600, HIMC 2620, HIMC 1840 and college-level reading and writing skills). (3 C/1 lect, 2 lab).

HIMC 1820   CPT Coding
This course provides a study of the CPT (Current Procedural Terminology) coding system using sample exercises and medical records to develop skill and accuracy in coding in various settings. Students will continue using the principles of ICD-9-CM Coding to ensure proficiency in coding with ICD-9-CM and CPT-4 using patient records and advanced concepts of coding. Students will adhere to current regulations and established guidelines in code assignment. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor's permission is required when the course is offered online. BTEC 1600, HIMC 2620, HIMC 1840, HIMC 1810 ICD-9-CM Coding. College-level reading and writing skills). (3 C/1 lect, 2 lab).

HIMC 1830   Advanced Coding and Reimbursement
This course provides a study of numerous health insurance plans, reimbursement methodologies, and compliance strategies. Students will continue using the principles of ICD-9-CM and CPT coding to ensure proficiency in coding with ICD-9-CM and CPT using patient records and advanced concepts of coding. Students will adhere to current regulations and established guidelines in code assignment. Students will use electronic applications and work processes to support clinical classification and coding. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor's permission is required when the course is offered online. BTEC 1600, HIMC 2620, HIMC 2630, HIMC 1840, HIMC 1810, HIMC 1820. College-level reading and writing skills). (3 C/1 lect/2 lab).

HIMC 1840   Introduction to Health Records

This course is a study of the development and integrity of the health record and health information professional. Definition and application of techniques necessary for assurance of adequate documentation and confidentiality of health care in the health record (patient information systems) will be addressed. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor's permission is required when the course is offered online. College-level reading and writing skills). (4 C/3 lect, 1 lab).

HIMC 1850   Computerized Health Information

This course introduces the student to the vital role information processing plays in health care delivery. Basic concepts of health information systems will be introduced and applied including electronic data collection, storage, retrieval, and other applications. Current medical software will be utilized. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor's permission is required when the course is offered online. BTEC 1600, HIMC 1840, BTEC 2350 or BTEC 2355. College-level reading and writing skills). (3 C/1 lect, 2 lab).

HIMC 1860   Alternative Health Record Systems

This course focuses on management of health information services in health care facilities other than acute care hospitals. The course includes discussion of health record content and format, regulatory and accreditation requirements, record storage and retention, coding, data collection/report, and quality management techniques unique to these facilities. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor's permission is required when the course is offered online. HIMC 1840. College-level reading and writing skills). (2 C/2 hrs per wk).

HIMC 2010   ICD-10-CM Coding

This course will introduce the student to the ICD-10-CM classification system with an emphasis on the correct process of utilizing the alphabetic index and tabular list for code assignment. The focus will be on rules, conventions, instructions of ICD-10-CM as well as the chapter specific guidelines (e.g. circulatory, injury, pregnancy), including criteria for assignment of principal and additional diagnoses in all applicable patient settings will be addressed. The impact of proper code assignment, MS-DRGs and reimbursement will also be discussed. The ICD-9-CM classification system will be discussed and compared to the ICD-10-CM. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor¿s permission is required when the course is offered online. BIOL 1107, BTEC 1600, HIMC 2620, and HIMC 1840. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/1 lect, 2 lab).

HIMC 2020   ICD-10-PCS Coding

This course focuses on the ICD-10-PCS classification system. The course will introduce the student to the professional standards for coding and reporting of diagnostic inpatient and outpatient services and inpatient procedure services. Coding characteristics, conventions and guidelines will be applied in identifying and accurately assigning codes to procedures. Health records, manual and computerized coding methods, and coding references will be utilized in the coding process. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor¿s permission is required when the course is offered online. BIOL 1107, BTEC 1600, HIMC 2620, and HIMC 1840. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/1 lect, 2 lab).

HIMC 2600   Human Diseases for Health Professionals

This course develops an understanding of the clinical knowledge base covering various areas of medical practice, provides fundamental information about normal body function, major disease conditions affecting all the major body systems and medications commonly used for those diseases. Focus will be to enhance professional communication within the health care environment by being able to associate basic treatment terminology and procedures with common disease conditions and the body system involved. (Prerequisites: BTEC 1001, Desire 2 Learn Tutorial, or the instructor¿s permission is required when the course is offered online). (3 C).

HIMC 2620   Pathophysiology and Pharmacology I

This course covers various specialty areas of medical practice, the function of the related body system, diseases that are common to that system and their causes, and medications commonly used for those diseases. Specialty areas covered are: gastrointestinal, urinary, reproductive, respiratory, and cardiovascular systems. Additional topics covered will be drug classifications, modes of administering medications, and characteristics of typical drug effects. Emphasis will be placed on disease processes, laboratory and diagnostic examinations, surgical procedures, and treatments relating to each system. (Prerequisites: BTEC 1001, on-line tutorial or the instructor's permission is required when the course is offered online. College-level reading and writing skills. (3 C/3 hrs per wk).

HIMC 2630   Pathophysiology and Pharmacology II

This course covers specialty areas of medical practice, function of the related body system, diseases that are common to that system and their causes, as well as diagnostic and therapeutic procedures and medications commonly used for those diseases. Specialty areas covered are: dermatology, endocrine, musculoskeletal, nervous, mental health, special senses (eyes and ears), and oncology. Emphasis will be placed on disease processes, laboratory and diagnostic examinations, surgical procedures, and treatments relating to each system. (Prerequisites: BTEC 1001, on-line tutorial or the instructor's permission is required when the course is offered online. College-level reading and writing skills). (3 C/3 hrs per wk).

HIMC 2800   Legal Aspects of Health Information

This course covers the application of legal principles, policies, regulations, and standards for the control and usage of consent and release of information forms used in medical facilities. Ethical and bioethical practices will be explored. An overview of current health legislation will be included. (Prerequisites: BTEC 1001, on-line tutorial or the instructor's permission is required when the course is offered online. HIMC 1840 and college-level reading and writing skills). (2 C/2 hrs per wk).

HIMC 2810   Quality Analysis and Health Statistics

This course covers the components of continuous improvement using practical tools for problem-solving, decision making, time management, and implementation of quality concepts. This course is also a study of collecting, analyzing, interpreting, and presenting numerical data relating to health care services. (Prerequisites: BTEC 1001, on-line tutorial or the instructor's permission is required when the course is offered online. HIMC 1840 and HIMC 1850. College-level reading and writing skills. (3 C/1 lect, 2 lab).

HIMC 2820   Supervision of Health Information

This course is a study of the basic principals of management, communication, and relationships in creating a productive work environment in a health care facility. Effectiveness in dealing with co-workers, patients, and health care providers is also studied through case reports, group discussions, and role playing. (Prerequisites: BTEC 1001, on-line tutorial or the instructor's permission is required if the course is offered online. HIMC 1840, HIMC 1850, and HIMC 2810. College-level reading and writing skills). (3 C/1 lect, 2 lab).

HIMC 2830   Health Information Technology Review

This course is the online capstone study and review for the registered health information technician national examination by AHIMA. This course offers you a study plan, review of all major examination and domain topics, mock pretest and post-test, guidance to good computer test-taking skills, and a discussion board/chat room for discussion of questions with classmates. (Prerequisites: BTEC 1001, on-line tutorial or the instructor's permission is required if the course is offered online. Students should be in the last semester of study in the HIT program. College-level reading and writing skills). (1 C/1 hrs per wk).

HIMC 2835   CCA/CPC Review

This course is the online capstone study and review for the certified coding associate and the certified professional coder national examinations by AHIMA and AAPC. This course offers you a study plan, review of all major examination topics, mock pretest and post-test, guidance to good computer test-taking skills, and a discussion board/chat room for discussion of questions with classmates. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor¿s permission is required when the course is offered online. Student should be in the last semester of study in the Coding program. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better).

HIMC 2850   Health Information Technology Internship I

This course provides the student with practical application of theories learned during the course of study. Under the supervision of a qualified health information professional, the student will gain professional practice experience in a long-term care facility and other alternate sites. Students will be required to meet written goals and objectives and undergo evaluations under supervision. (Prerequisites: BTEC 1001, on-line tutorial or instructor's permission is required when the course is offered online. BTEC 1600, HIMC 2620, HIMC 2630, HIMC 1810, HIMC 1840, HIMC 1850, HIMC 2800. College-level reading and writing skills). (2 C/64 hrs per semester).

HIMC 2855   Coding Internship I

This internship will allow students to apply practical applications of learned theories. Students will also be able to observe and perform coding responsibilities in a healthcare delivery system such as clinics, hospitals, surgicenters, and ambulatory care centers. Students will be required to meet written goals and objectives and undergo work evaluations under supervision. (Prerequisites: BTEC 1001, on-line tutorial, or the instructor's permission is required when the course is offered online. BTEC 1600, HIMC 1810, HIMC 1820, HIMC 1840, HIMC 2620, HIMC 2630. College-level reading and writing). (1 C/30 hrs per semester).

HIMC 2860   Health Information Technology Internship II

This course provides the student with practical application of theories learned during the course of study. Under the supervision of a qualified health information professional, the student will gain professional practice experience. Students will be required to meet written goals and objectives and undergo evaluations under supervision. (Prerequisites: BTEC 1001, on-line tutorial or instructor's permission is required when the course is offered. BTEC 1600, HIMC 2620, HIMC 2630, HIMC 1810, HIMC 1820, HIMC 1840, HIMC 1850, HIMC 2800, HIMC 2810, HIMC 2850, BIOL 1107. College-level reading and writing skills). (3 C/96 hrs per semester).

HIMC 2870   HIT Capstone Experience

This course provides the student with practical application of theories learned during the course of study. Under the supervision of a qualified health information professional, the student will gain professional practice experience. Students will be required to meet written goals and objectives and undergo evaluations. (Prerequisites: Completion of all other courses in this program. Student should be in their last semester of coursework).

HISTORY

HIST 1611   The Ancient World
This course will begin with a survey of ancient Near Eastern, Egyptian, Indian and Chinese civilizations and then describe the development of the Greek world. A study of the Roman Republic and Empire and its relations with the world around it will end the course. The religion, philosophy and political development of each of these civilizations will be included to provide a flavor of their background and unique culture. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 1612   The Medieval World
This course will trace the decline and fall of the Roman state and the changes during the Middle Ages in Europe, North Africa, the Middle East and Asia to about 1500 CE. The rise of Islam and its spread through the Medieval world will be discussed along with its impact on the European, Byzantine and Middle Eastern civilizations around it. The impact of the Mongols on the medieval world will also be addressed. Considerable emphasis will be placed upon the various institutions, policies, and cultural patterns at various times and places that explain the growth and decline of a given civilization and its interactions with the civilizations around it. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 1613   Foundations of Western Civilization: From Ancient Greece to 1715
The course begins in Ancient Mesopotamia and focuses on European developments until the death of Louis XIV. It shall cover the Greek World, Roman Empire and the origins of Christianity, the Middle Ages, the ideas formulated in the Renaissance, the various aspects of the Reformation, and the growth of absolutism and constitutional monarchies. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 1614   Europe in the Modern Age: 1715-Present
This course traces the history of Europe from the Enlightenment to the present. It will include an analysis of the Age of Reason, the French Revolution, Napolenic era and social and intellectual movements. In addition it will deal with the unification of Germany and Italy, the Russian Revolution, causes and results of World Wars I and II, the Cold War, and the disintegration of the Soviet Union. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 1615   War and Peace in the 20th Century
The course will begin with the diplomatic background of World War I and then investigate the peace efforts that ended it, the developments that led to World War II, the failure of peace after that war that led to the Cold War and the conflicts associated with it, such as Korea and the Vietnam War. The break up of the Soviet Union and the conflicts that emerged out of it and a discussion of the Gulf War will end the course. Emphasis will be placed on the interests of all parties in the various struggles to show why they chose war or peace in their interactions. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 1617   World History to 1500
This course provides a survey of world history from the beginnings of civilization about 3500 BCE to 1500 CE. The prehistoric and early literate societies of Egypt, Mesopotamia, China and India are investigated first. A review of the classical societies that developed in these areas and in Europe follows. The course concludes with an examination of the medieval period in Europe and a short investigation of the formation of civilizations in the Americas and Oceana. Cross cultural interactions are noted throughout the course. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 1618   World History Since 1500
This course will be a global overview of the modern period of world history. Beginning with a study of the major areas that existed in 1500 and the European Renaissance and reformation, this course will include the influence of European expansion and colonialism of Europe itself and the rest of the world, changes in religious patterns, the French Revolution and Napoleon, the influence of the industrial revolution, nationalism, Marxism and communism, and the rearrangements of the 20th century. The course will end with a brief review of contemporary conditions. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/CT, Goal 5/SS, Goal 8/GP.

HIST 1622   History in Minnesota
The course covers Minnesota's history from the paleo cultures, the pre-European Amerindian cultures, the settlement of New France, the French and British exploration and fur trade, post Revolutionary War, to the Industrial Revolution. Climatic, geo-physical, socio-economic, political, and cultural development will be traced and analyzed. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

HIST 1624   U.S. History to 1865

The course begins in the pre-Columbian Americas with a discussion of Native American migration, settlement, culture, language groups and civilizations. It is followed by a section dealing with contact between European and Native American peoples, European colonization, and the various battles for continental supremacy. The American War for Independence, the construction of the new nation, and the era of Jacksonian Democracy make up the third portion of the course. Finally, the topics of territorial expansion, immigration, slavery, and the Civil War's causes and results round out the course. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

HIST 1625   U.S. History 1865-Present

Beginning with the period of Reconstruction, the course encompasses the Gilded Age, rapid industrialization, the Progressive reform era, World War I, the 1920s, and the Great Depression. The second half of the course concerns itself with World War II, the Cold War, United States containment policies, the turbulence of the 1960s, as well as events of the 1970s, through the present day. In covering these topics the course will dwell on the major events and participants that made these historical epochs. (Prerequisites: college level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

HIST 1628   History of the Americas

The course will examine the cultures of the Western Hemisphere from the Paleo-Homosapiens to the present day Amerindian societies. It will show that there existed in the Western Hemisphere a social structure that was as advanced, in some instances more so, than the European cultures that encountered it. The course will also explore the relationships between the Amerindian and European cultures beginning in the 15th century through the present day. (Prerequisites: college level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

HIST 1631   Modern Asian Civilizations

A survey of Asian history in the last two centuries, from the age of imperialism to contemporary nationalism. Regional themes will be traced in Southeast Asia (with emphasis on Vietnam); East Asia (China, Korea, and Japan); South Asia (India), and Southwest Asia (the Middle East). Particular attention will be paid to Western Imperialism, World War II, and the Vietnam wars. Middle East topics include developments in the oil producing Gulf states, and Arab-Israeli conflicts. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 1640   Women in History

This course covers the role of women from prehistory to the present. Starting in Europe and the Near East, the course later concentrates on the history of American Women from approximately 1700 AD. In addition to the study of women in general, certain notable women from each era are singled out for close study by the class. (Prerequisites: college level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

HIST 1650   History of Religion

This course traces the origins and the development of the belief systems, personalities and historical events of the world's great religions as well as some pre-historical and lesser known religions. It will also offer a comparative analysis of the fundamental aspects of the religions covered. However, the emphasis of the course will be on the historical and philosophical, not theological aspects of these religions. (Prerequisites: college level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 1789   History of the American Presidency

This course will trace the development of the American Presidency including Constitutional and implied powers. It will take a historical approach to the development of the office by focusing on critical presidents, events, crises, decisions, and legacy. The power of the presidency has grown, especially in the 20th century, and therefore the course will devote a considerable amount of attention on that era. (Prerequisites: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 9/Ethical and Civic Responsibility.

HIST 2070   History of the Rock and Roll Era

The History of the Rock and Roll Era covers American history and the political, social, cultural, and economic changes occurring after World War II using Rock and Roll as the lens through which to examine those changes. It will address major historical events and significant rock artists and styles of music that reflect historical movements. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

HIST 2619   Issues in Modern World History

Using original and secondary source material this course will study pertinent political, diplomatic, social and economic issues that have influenced the history and development of the Modern World. The issues chosen will be dependent on the instructor's choice and thus will vary from term to term. (Prerequisites: college level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

HIST 2621   Issues in American History

A study of domestic and foreign policy issues from the 17th century to the close of the 20th century. American social, economic, political and foreign developments will be traced. Issues studied will be examined in the context of their occurrence to the way they are viewed in present day America. (Prerequisites: HIST 1624 or 1625 or permission of instructor; Recommended: college level reading and writing). (3 C/3 lect/0 lab). MNTC: Goal 2/CT, Goal 5/SS, Goal 8/GP).

HEALTH

HLTH 1102   Industrial Safety and First Aid

This course will consist of lectures, video scenarios, demonstrations, and practice in emergency first aid care. The course will cover different safety aspects in industry, safety engineering, industrial hygiene, life safety and the importance of the Occupational Safety and Health Act (OSHA) and the Right To Know Act. An American Red Cross Adult CPR and Standard First Aid Certificate will be issued after successful completion of the course. (Prerequisites: College level reading). (2 C).

HLTH 1108   Weight Management Through Nutrition and Fitness

This course is designed for students to acquire basic principles of nutrition, behavioral analysis and exercise and apply them to the development and implementation of their weight management plan. This course explores weight management without "diet'. It has an experiential format. (Prerequisites: None). (3 C).

HLTH 1109   Community CPR/First Aid and Safety

This course will consist of lectures, video scenarios, demonstrations, and practice in emergency first aid care. The course will cover different safety aspects in industry, safety engineering, industrial hygiene, life safety and the importance of the Occupational Safety and Health Act (OSHA) and the Right To Know Act. An American Red Cross Adult CPR and Standard First Aid Certificate will be issued after successful completion of the course. (Prerequisites: College level reading). (2 C).

HLTH 1110   CPR/AED for the Professional Rescuer - (Health Care Provider)

This course will provide the professional rescuer with the knowledge and skills necessary in an emergency to help sustain life, reduce pain, and minimize the consequences of respiratory and cardiac emergencies until more advanced medical help can arrive. This course will consist of lecture, demonstration, video scenarios and practice in cardiopulmonary resuscitation and emergency cardiac care. This course includes instruction in Adult CPR, Infant/Child CPR, Two-rescuer CPR and the use of pocket masks and bag-valve masks. This course will also emphasis the use of Automated External Defibrillators (AED's) as the care for a victim of cardiac arrest. Certification in CPR for the Professional Rescuer and AED will be given to those who successfully complete the course. (Prerequisites: College level reading). (1 C).

HLTH 1111   Health Education

This course gives the student a meaningful and useful background in a number of major health areas. The class includes a study of stress, mental health, human sexuality, nutrition/fitness, drugs, disease, aging, death and dying, consumerism and health care, ecology, and safety. Designed to help the individual student understand and cope with their environment and to be a responsible citizen. (Prerequisites: College level reading, ENGL 0990, MATH 0093). (3 C).

HLTH 1114   Responding to Emergencies

This course is designed to prepare students to respond appropriately and with confidence in emergency situations until more advanced help arrives. Instruction will include discussion, lecture, demonstration, video scenarios and practice. The course includes certifications in Community CPR (Adult, Infant and Child) and Responding To Emergencies for those who successfully complete the course. Also included are situations involving sudden illness, severe bleeding, delayed help situations and healthy lifestyle practices. (Prerequisites: ENGL 0980 and College level reading). (3 C).

HLTH 1132   Drug Use and Abuse

This course allows students to explore many of the historical and current patterns associated with the use of drugs in our society and other cultures and societies of the world. Discussions will include the social, legal, medical, psychological, and rehabilitative aspects of drug use. Health risks and implications surrounding drug use and HIV and AIDS will also be covered. Students will examine their attitudes, values, and assumptions concerning drug use. (Prerequisites: College level reading and writing). (3 C).

HLTH 1135   Holistic Health: Introduction to Complementary Health

This course in holistic health allows students to explore complementary/alternative therapies such as acupressure, aromatherapy, biomagnetic therapy, herbal remedies, and mind/body control. Discussions will include the social, political, and economic aspects of holistic health care, and the healing aspects of exercise and nutrition. Updated research from the national Institutes of Health; Office of Alternative Medicine; and the insurance industry's views on alternative therapies will also be discussed. (Prerequisites: College level reading and writing). (3 C).

HLTH 2126   Women's Health Issues

Students will have an opportunity to identify major health issues confronting women today. This course will examine lifestyle choices dealing with health prevention and promotion. It will explore health issues from the traditional medical mode to the holistic model using an integrative approach. This course will include a overview of critical contemporary women's health topics. (Prerequisites: College level reading and writing). (3 C).

HORTICULTURE

HORT 1310   Soil Science
To gain an understanding of the physical and chemical properties of soil. To recognize differences in soil quality as it affects plant growth. To modify a soil by using soil amendments. An understanding of soil principles is critical to the cultural management of any horticultural crop. Soil is important as a plant growth medium which acts as a reservoir of fertility and physical support of plant roots. This course covers topics in the basic study of soils including physical, chemical, and biological properties of soils, soils formation, soil classification, soil pH and soil surveys. Soil amendments as used in horticultural crop soils will also be discussed. (Prerequisites: None). (3 C/ 2 lect, 1 lab, 0 OJT).

HORT 1315   Plant Materials - Woody Plants
This course covers the characteristics and identification of deciduous and evergreen trees and shrubs grown in the upper Midwest. A thorough knowledge of native and commercial plant materials is vital background to any horticultural occupation. Particular attention is placed upon identification of the plant materials and the classification of these materials according to cultural and landscape use characteristics. (Prerequisites: ENGL 0840 and 0980; MATH 0093). (3 C/1 lect, 2 lab, 0 OJT).

HORT 1318   Introduction to Turfgrass Management
The development and culture of turfgrass is important in many societies for functional, recreational, and ornamental reasons. A thorough understanding of common turfgrasses and their culture is an important tool in the management of cultured turf. This course is designed to cover topics in turfgrass structures, growth processes, seasonal turfgrasses, cultural practices, and seed blends. (Prerequisites: None). (3 C/2 lect, 1 lab, 0 OJT).

HORT 1320   Plant Materials II - Herbaceous Plants
Identification, description, uses, cultural requirements, adaptability and maintenance of non-woody ornamental plants with emphasis on annuals, biennial, perennials, and bulbs. (Prerequisites: ENGL 0840 and 0980; MATH 0093). (3 C/1 lect, 2 lab, 0 OJT).

HORT 1323   Introduction to Horticulture
This course examines the fundamentals of horticulture principles and their relation to horticulture business from careers to specific crops. An exploration of the diverse areas of the horticulture industry. (Prerequisites: ENGL 0840 and 0990; MATH 0093). (3 C/ 2 lect, 1 lab, 0 OJT).

HORT 1325   Urban Forestry
This course covers management of green infrastructure of cities, towns, and communities and will emphasize management of urban forest ecosystems to maximize benefits to the environment and people. Tree selection, risk assessment, cost-benefit analysis, environmental benefits, social impacts, communication, landscape planning, values and perceptions will be covered. How urban forestry can be a tool to improve community infrastructure and the human environment will also be considered. (Prerequisites: HORT 1310). (3 C/3 lect, 0 lab, 0 OJT).

HORT 2301   Directed Study
This course is individual study or a project in some field related to this discipline, directed and adapted to any program area by appropriate members of the faculty. Opportunity for in-depth exploration of concepts, technology, materials, or programs in specific area to expand professional competency and self-confidence. Planning, organizing, implementing and evaluating knowledge obtained from formal education and experience. (Prerequisites: ENGL 0980, MATH 0093 and instructor approval). (1 C/0 lect, 1 lab, 0 OJT).

HORT 2302   Directed Study
This course is individual study or a project in some field related to this discipline, directed and adapted to any program area by appropriate members of the faculty. Opportunity for in-depth exploration of concepts, technology, materials, or programs in specific area to expand professional competency and self-confidence. Planning, organizing, implementing and evaluating knowledge obtained from formal education and experience. (Prerequisites: ENGL 0980, MATH 0093 and instructor approval). (2 C/0 lect, 2 lab, 0 OJT).

HORT 2303   Horticulture Internship
On-the-job internship experience or additional college laboratory or classroom experience designed to make the student more acceptable to industry within his or her chosen program or occupational emphasis. (Prerequisites: ENGL 0980, MATH 0093 and completion of one semester of HORT and consent of instructor). (3 C).

HORT 2330   Plant Propagation

This course is the reproduction or multiplication of plants by sexual or asexual methods. Successful plant propagation requires an integrated knowledge of plant growth and development, plant structures, environmental control and propagation techniques. The green house technician's ability to master plant propagation techniques is considered by many to be an artistic talent as well as a scientific procedure. This course will present a study of plant propagation principles and techniques. Topics include propagation by seed, cuttings, grafting, budding, specialized stems-roots, and micro propagation techniques. In addition, propagation environmental requirements and media selection will be covered. (Prerequisites: BIOL 1102). (4 C/2 lect, 4 lab, 0 OJT).

HORT 2331   Greenhouse Operations and Management

Greenhouses structures are a means by which flowering and foliage plants can be forced to grow on a more accelerated and uniform schedule. Greenhouses have evolved from single-standing glass framed structures to multiple-sectioned mechanized greenhouse ranges. Many greenhouses today have automated systems for lighting, watering, transport, and environmental control. This course will present information applicable to greenhouses ranging in size from small single units to large automated complexes. Topics include greenhouse structures, glazing materials, bench systems, irrigation systems, and environmental control. (Prerequisites: ENGL 0840 and 0980; MATH 0093). (3 C/1 lect, 2 lab, 0 OJT).

HORT 2335   Landscape Design

This course is focused on the application of landscape design principles to residential and commercial landscape projects. The intent of this design course is to allow the student to build design proficiency and independent problem-solving skills when working with landscape design projects. The content goals will be applied to specific landscape design projects so that the student may experience the broad scope of landscape design. Emphasis is place on Landscape Site Analysis and Landscape Design Fundamentals. An introduction on the use of Computer Aided Design (CAD) in landscape design will be included. (Prerequisites: ENGL 0980, MATH 0093, HORT 1315, HORT 1320). (3 C/0 lect, 4 lab, 0 OJT).

HORT 2350   Intergrated Plant/Pest Management

This course covers an introduction to identification and control of pests affecting the turf and landscape industry. A basic understanding of entomology, plant pathology, physiological, nutrition, mechanical, cultural, biological, and environmental factors affecting plants. (Prerequisites: ENGL 0980, MATH 0093). (2 C/1 lect, 2 lab, 0 OJT).

HORT 2390   World Horticulture

This course examines the Horticulture industry outside of the Midwest. An exploration of the diverse areas of the horticulture industry. (Prerequisites: ENGL 0840 and 0990; MATH 0093 and instructor approval). (2 C/1 lect, 1 lab, 0 OJT).

HORT 2399   Horticulture Seminar

Enhance critical thinking skills through the preparation and presentation of an in-depth study relating to the horticulture industry. (Prerequisites: ENGL 0840 and 0990; MATH 0093 and completion of two full semesters or consent of instructor). (1 C/ 0 lect, 1 lab, 0 OJT).

HUMAN SERVICES TECHNICIAN

HS 1511   Medication Administration for Unlicensed Personnel

This course includes the study of legal requirements concerning drugs and drug administration, general information about medications, terminology related to medication administration and the use of reference sources. Students will learn actions, usual doses, toxic symptoms and special considerations of a variety of drugs. While students will not administer medications, they will participate in laboratory practice reading actual labels, preparing, and role-play administering medications. (Prerequisites: None). (2 C/1 lect, 1 lab, 0 OJT).

HS 1522   Introduction to Human Services

This course covers the role and responsibilities of human services workers and introduces the student to human services agencies. Interpersonal communication skills are stressed throughout the course, and basic interviewing skills will be studied by working through a computer program. Profession ethics, self-understanding, boundary issues, problem solving, and group process are also covered. The student will create resumes, write job application letters, complete a job application form, and prepare for the employment interview. (Prerequisites: None). (3 C/2 lect, 1 lab, 0 OJT).

HS 1530   Health Issues

This course presents basic information about nutrition and chronic disease conditions, prevention, causes and treatments. Exploration of attitudes toward persons with conditions will be emphasized. (Prerequisites: None). (2 C/1 lect, 1 lab, 0 OJT).

HS 1532   Therapeutic Techniques

This course involves the identification of specific therapeutic techniques for clients with a variety of disabilities. Emphasis is placed on observation, reporting, and recording skills as well as identifying and modifying behaviors and/or teaching new behaviors.

Students will have the opportunity for Non-Violent Crisis Intervention certification. (Prerequisites: None). (2 C/1 lect, 1 lab, 0 OJT).

HS 1550   Mental Health Disorders for HST Workers
This course explores major and minor mental health disorders and treatment strategies. It provides students with practical knowledge and skills necessary to therapeutically relate to the emotionally ill-disturbed person in any setting. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

HS 1555   Mental Health Field Experience
This course provides the student with the opportunity to integrate classroom learning with supervised field experience which includes observation and actual work experience in a client setting for mental health issues. Each student will receive experience in one of the following areas: community based treatment center, halfway houses, activities department of a nursing home or educational setting. (Prerequisites: NA 1500; HS 1550). (3 C/0 lect, 0 lab, 3 OJT).

HS 1560   Chemical Dependency Theory
This course explores chemical Dependency in relation to attitudes, signs, symptoms, medical aspects, commonly abused drugs as well as the effects on individuals, families and communities. Cause, prevention, intervention, treatment and consequences are examined. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

HS 1565   Chemical Dependency Field Experience
This course provides the student with the opportunity to integrate classroom learning with supervised field experience which includes observation and actual work experience in a client setting for chemical health issues. Each student will receive experience in one of the following areas: community based treatment center, halfway houses, detoxification facility, social services or a board and lodging facility. (Prerequisites: NA 1500; HS 1560). (3 C/0 lect, 0 lab, 3 OJT).

HS 1570   Developmental Disabilities Theory
This course is a study of developmental disabilities with an emphasis on mental retardation. Basic ideas, concepts, and issues relating to several developmental disabilities are presented. Mental retardation is studied by exploring the history, causes, legislation, classification, education, community resources, rehabilitation, and employment needs. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

HS 1710   Foundations of Alcohol and Drug Counseling
This course provides an introduction to alcohol and drug counseling, including the physical, psychological, and social aspects of alcohol and drug abuse and addiction. The foundations of trans-disciplinary counseling and the theories of addiction, continuum of care and process of change are presented. This course will cover all 12 MN LADC core competencies: overview of change/theory, pharmacology, ethical responsibility, multicultural aspects, co-occurring disorders, screening, intake orientation, assessment, treatment planning counseling skill development, case management, crisis intervention, client education, referral, records/reports, and consultation. Finely this course will discuss practicum placements and their requirements (including passing DHS background check). (Prerequisites: None). (3 C/3 lect, 0 lab).

HS 1720   Co-Occurring Disorders
This course provides a basic understanding of the major mental health disorders and how these disorders interact with alcohol and drug abuse disorders. Areas of importance in this class will include: Historical overview of disorder, current DSM diagnostic criteria, diagnosis code, associated features, differential diagnoses, prevalence & course, assessment measures, treatment modalities, barriers to successful treatment, ethical issues, multicultural issues (gender, age, race, etc.), and co-occurring relationship to addiction will all be addressed. There will also be a practical application to this class. (Prerequisites: None). (3 C/3 lect, 0 lab).

HS 1730   Screening and Assessment of Disorders
This course presents the screening and assessment tools utilized in the diagnosis of alcohol and drug abuse disorders, with emphasis on the Rule 25 and American Society of Addiction Medicine six dimension criteria. The array of screening, intake, and referral tools and diagnostic techniques utilized in the chemical dependency field are presented and practiced (Rule 25, ASI). Students will learn and practice motivational skills, interview processes/skills, screening, intake, assessment, orientation, placement, referral, and treatment planning. (Prerequisites: None). (2 C/2 lect, 0 lab).

HS 1740   Pharmacology of Addiction
This course provides an overview of the pharmacological aspects of alcohol and drug addiction, including prime effects and side effects of mood altering drugs. The mood altering drug categories, routes of administration, and the physical and psychological effects of drugs are addressed. (Prerequisites: None). (2 C/2 lect, 0 lab).

HS 1750   Case Management and Ethics
This course details the ethical guidelines that direct the delivery of alcohol and drug counseling services, as well as the ethical standards licensed alcohol and drug counselors must abide by in the state of Minnesota. Other ethical areas of focus will be: methods of case management, documentation, consultation, supervision, referral, client¿s rights, counselor¿s responsibility, treatment planning, recording keeping, multicultural issues, confidentiality, appropriate boundaries, family counseling, group

counseling, and community education/counseling. (Prerequisites: None). (3 C/3 lect, 0 lab).

HS 1760   Multicultural Aspects of Addiction
This course focuses on developing multicultural awareness and competency as it relates to counseling diverse populations with addictive disorders. This course provides students with an overview of a given culture (history, geographic origin, identity, beliefs, norms, support systems, barriers to successful treatment, etc.) as it relates to the addiction counseling process. This course provides an overview of the counseling skills and techniques necessary to interact with a variety of cultural backgrounds in the addiction field. Emphasis will be placed on the unique treatment needs of individuals from diverse populations and the implementation of consultation and referral when necessary. Additional focus for this course will be placed on qualitative research of culture and education of diverse client specific needs. Cultural backgrounds included in this course include but are not limited to: Gender, Sexual Orientation, SES, Disability, Adolescents, Elderly, Race - European, Hispanic, Latino, Asian, African, and Native American. (Prerequisites: None). (3 C/3 lect, 0 lab).

HS 1765   Addictions Counseling Theory and Practice
This course provides students with an overview of a wide variety of individual, group, crisis, relapse, spiritual, and family addiction counseling theories, interventions, strategies, techniques, and skills. Additional focus in this class will be on identifying community resources, treatment planning, assessment, goal setting, diagnosis, case management, and patient/client education. Finely, this course provides students with the opportunity to practice these theories, interventions, strategies, techniques, and skills in class simulated role plays. (Prerequisites: None). (3 C/3 hours every other week plus out of class work).

HS 1770   Alcohol and Drug Counseling Practicum I
This course consists of classroom preparation necessary to interview and obtain an 880-hour alcohol and drug counseling practicum that is supervised by a licensed alcohol and drug counselor in a clinical setting. The practicum course requires some demonstration of competence in the 12 core functions of alcohol and drug counseling. The weekly classroom seminar will address the transfer of academic coursework into clinical practice. During the weekly seminal discussions students will discuss ethical and professional considerations, boundary setting, interpersonal conflicts, engagement in the therapeutic process, etc. Furthermore, students shared with one another their practicum experiences, challenges, areas for improvement, strengths, areas of professional growth, and review progress in addressing the twelve core functions. Students in practicum I will complete a minimum of 440 hours of supervised addiction counseling practices under a LADC or other qualified professional. (Prerequisites: None). (3 C).

HS 1780   Alcohol and Drug Counseling Practicum II
This course consists of classroom preparation necessary to interview and obtain an 880-hour alcohol and drug counseling practicum that is supervised by a licensed alcohol and drug counselor in a clinical setting. The practicum course requires some demonstration of competence in the 12 core functions of alcohol and drug counseling. The weekly classroom seminar will address the transfer of academic coursework into clinical practice. During the weekly seminal discussions students will discuss ethical and professional considerations, boundary setting, interpersonal conflicts, engagement in the therapeutic process, etc. Furthermore, students shared with one another their practicum experiences, challenges, areas for improvement, strengths, areas of professional growth, and review progress in addressing the twelve core functions. Students in practicum II will complete a minimum of 440 hours of supervised addiction counseling practices under a LADC or other qualified professional. (Prerequisites: None). (3 C).

HS 1781   Addiction: Crisis Intervention and Prevention
This course provides students with an overview of crisis intervention and prevention models and theories, assessment strategies, community support systems or plan of actions. (Prerequisites: None). (1 C).

HS 1782   Addiction, Society, and the Justice System
This course provides students with an overview of the impact of addiction on the individual, society, and the criminal justice system. Specific consideration will be given to identifying/understanding drugs of abuse, patterns of abuse, biopsychosocial effects of use, criminal/addictive thinking, counseling techniques/theories/treatments, relapse/recidivism issues, community resources/responsibility, cultural, ethics, laws, and lifestyle balance. (Prerequisites: None). (3 C).

HS 1783   Addiction: Co-occurring Disorders and Kids/Adolescents
This course provides students with an overview of child and adolescent human developmental factors, mental health, and substance abuse disorders which impact the well being of self, family, and community. (Prerequisites: None). (2 C).

HS 1784   Behavioral/Process Addictions
This course provides students with an overview of behavioral (process) addictions. Special considerations will be given to gambling, shopping, eating, sex, video games, exercise, working, computer/internet addiction and the impact these disorders have on the wellbeing on individuals, families, and communities. (Prequisites: None). (1 C).

FLORICULTURE

HTFL 1328   Floral Design and Merchandising

This course covers the identification and arrangement of flowers, greens, accessories, and materials used by the retail florist. The principles and elements of floral design are emphasized with the use design materials. Fresh flowers and permanent design materials are used in the class. This course offers hands-on experiences using a wide variety of quality, fresh flowers and foliage. Course starts with the basics and progresses on to more advanced design styles. (Prerequisites: ENGL 0980 and MATH 0093). (3 C/1 lect, 4 lab, 0 OJT).

HTFL 2341   Greenhouse Crop Production

Greenhouse crop production typically follows cycles in which peak harvests are centered around heavy consumer demand due to seasonal holidays or events. The intent of this course is to apply greenhouse practices to poinsettia, potted chrysanthemum, cut chrysanthemum, lily, bulb crops, azalea, cyclamen, kalanchoe, freesias, snapdragons, alstoemeria, roses, hydrangea, carnation, foliage plants, bedding plants, and miscellaneous greenhouse crops. Topics include variety selection, soil requirements, nutrient selection and monitoring, and crop maturation stages. Although greenhouse crops can be categorized by seasonal production practices, some of these crops may be grown on a year round basis. (Prerequisites: ENGL 0840 and 0990; MATH 0093; HORT 2331). (4 C/2 lect, 2 lab, 0 OJT).

HTFL 2342   Interior Plants and Plantscaping

A through knowledge of foliage plant materials is essential in order for interior foliage specialists to work effectively with interior foliage installations. This course covers topics in foliage plant characteristics, requirements, and identification. Particular attention is placed upon identification of foliage plant materials and the classification of these materials according to cultural and interior site use characteristics. (Prerequisites: ENGL 0840 and 0990; MATH 0093). (3 C/ 2 lect, 1 lab, 0 OJT).

LANDSCAPE/GROUNDS MAINT HORTICULTURE

HTLS 1322   Turf and Grounds Management

The production of high quality turfgrass and landscape plantings requires specialized turf and grounds management skills. Principles and practices of landscape maintenance including turf, trees, shrubs, annual and perennial flowers, vines and ground covers, as well as landscape features, will be discussed and performed. An integration of turf and grounds maintenance theory and practice will be applied to residential areas, parks, golf course, athletic fields, and commercial and recreational grounds. The maintenance, operation, and safety of turf and grounds power equipment is also a part of this course. (Prerequisites: ENGL 0840 and 0990; MATH 0093; HORT 1318). (4 C/1 lect, 3 lab, 0 OJT).

HTLS 2110   Introductory Tree Climbing

This course will introduce common climbing equipment, safety, climbing techniques and assessment of trees for safe climbing. Safe and efficient climbing techniques are a critical skill to tree workers and recreational climbers. Students will receive classroom instruction followed up with climbing activities to develop skills in safe climbing.

HTLS 2332   Arboriculture

This course covers biology, structure, physiology, selection, growth, fertility, propagation and maintenance of urban trees. Tree selection, site preparation, planting, pruning, operation of equipment, climbing and pruning techniques, terminology, plant health care management are covered as well as integrated pest management and plant health care. (Prerequisites: HORT 1310, HORT 1325). (3 C/2 lect, 1 lab).

HTLS 2343   Landscape Installation/Construction

Landscape installation and construction projects will attempt to provide reasons, and practical work experience, about why and how to design and build when installing a landscape. Landscape irrigation theory and practice is also included. (Prerequisites: ENGL 0840 and 0990; MATH 0093; HORT 2338 or consent of instructor). (4 C/1 lect, 3 lab, 0 OJT).

HEALTH UNIT COORDINATOR

HUC 1510   Introduction to Health Unit Coordinating

This course introduces the student to the role of a Health Unit Coordinator. A Health Unit Coordinator is a non-clinical member of the health care team and supports patient care with mainly clerical duties. Introduction to Health Unit Coordinating will focus on understanding the role within a hospital setting specifically looking at: a typical hospital organizational structure, various hospital departments and their responsibilities, and understanding the role of various medical staff; a comprehensive look at the department of nursing, a HUC's role within the department, and methods of patient care delivery; Identification of a variety of communication devices and their uses within the electronic environment; introduction to basic index and filing rules; the HUC as a profession and NAHUC as a professional organization; A brief overview of organizations such as Joint Commission, and the CDC will also be addressed in the introduction course for Health Unit Coordinators. In preparation for participating in the HUC internship, students will complete a required HIPAA module. (Prerequisites: None.) (3 C/6 hours/week for 8 weeks).

HUC 1515   Station Procedures I

This course will focus on the purpose of the patient's chart, identification of standard chart forms, and the Health care providers' responsibility regarding HIPAA Law and confidentiality. Time will be spent comparing the paper chart in contrast to the EMR. Students will learn to recognize, interpret, and transcribe all types of Doctors orders. Orders will include medical algorithms, protocols, order sets, free text orders, and CPOE. A comprehensive list of abbreviations used in Doctors orders and diagnostic procedures will be memorized and used appropriately throughout the course. Students will learn the importance of follow-through regarding Physician orders, which includes communication to various hospital departments and ordering supplies and equipment. (Prerequisites: Completion of or enrolled in HUC 1510 and HUC 1524). (3 C/6 hours/week for 8 weeks).

HUC 1516   Station Procedures II

This course will focus on various processes involved in the typical HUC role. These processes include completing and maintaining unit records and documentation regarding admissions, transfers, and dismissals of hospitalized patients; preoperative and postoperative procedures; recognition of available resources critical for independent problem solving; computer training unique to the health care environment; and Isolation procedures and standard precautions for infection control. Class time will also be used for internship planning and preparation. (Prerequisites: Completion of HUC 1510, HUC 1515 and HUC 1524). (3 C/6 hours/week for 8 weeks).

HUC 1519   Health Unit Coordinator Communications and Professional Issues

This course will focus on the basics of interpersonal communication skills, with an emphasis on customer service, and professional telephone techniques. Professional/ethical issues and information such as advanced directives, the patient bill of rights, the grieving process, and dealing with death and dying will be addressed as they relate to the healthcare worker. Personal/professional preparation for employment will cover topics such as co-worker interaction, personal work habits, preparing a resume, interviewing and job advancement opportunities. (Prerequisites: None). (3 C/6 hours/week for 8 weeks).

HUC 1524   Introduction to Medications for the Health Unit Coordinator

This course introduces the Health Unit Coordinator to commonly prescribed medications, pharmaceutical terms, systems of measurement, and medical abbreviations associated with medication orders and prescriptions. The HUC's role with medications will vary between health care facilities. (Prerequisites: None). (2 C/4 hours/week for 8 weeks).

HUC 1529   Health Unit Coordinator Internship

This course provides the student with the opportunity to apply classroom skills in a clinical setting. Experience will be gained in assisting with and independently performing the non-clinical tasks in a hospital setting that are consistent with the HUC role. Through the internship, the student will gain experience in completing processes and paperwork involved with admissions, transfers, dismissals, preop and postops, transcribing physicians' orders, maintain unit supplies, and communicate on a professional level with the healthcare staff. (Prerequisites: Completion of HUC 1510, HUC 1515, HUC 1516, HUC 1519 and HUC 1524). (4 C/20 hours/week for 8 weeks).

HUMANITIES

HUM 1001   Introduction to Hispanic Cultures

A comparative study of Hispanic cultures and societies exploring geographical, historical, socio-economic, political and religious issues, as well as the regional customs and interpersonal relations of the Hispanic world. Because these courses are taught in English, it is particularly suitable for students who have never studied a foreign language. This class is strongly recommended for students who are taking foreign language (Spanish). (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

HUM 1020   French-Speaking Cultures (In English)

This course, taught in English, is an introduction to the cultures of French-Speaking countries in Europe, Africa, Asia, and Oceania. Curriculum will focus on French civilization via the arts, literature, history, and social institutions. Emphasis will be on the development of cultural sensitivity and global perspective by comparing and contrasting one¿s own culture with the diverse cultures of francophone people worldwide. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

HUM 1111   Ancient Greek & Roman Culture & the Middle Ages: 900 B.C. to 1400 A.D.

This course examines the creative works and ideas of major artists and thinkers from early Greece and Rome and the Middle Ages, from approximately 900 B.C. to 1400 A.D. The course focuses primarily on world masterpieces of literary artists, but the works of other artists (composers, painters, etc.) may also be included. (Prerequisites: College level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

HUM 1112   The Renaissance Through the Enlightment: 1400 A.D. to 1770 A.D.

This course examines creative works and ideas of major artists and thinkers from the Renaissance through the Enlightment, from

approximately 1400 to 1770. The course focuses primarily on world masterpieces of literary artists, but the works of other artists (composers, painters, etc.) may also be included. (Prerequisites: College level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

HUM 1113   The Romantic Age Through the Modern Age: 1770 A.D. to 2000 A.D.

This course examines the creative works and ideas of major artists and thinkers from the Romantic Age through the Modern Age, from approximately 1770 to 2000 A.D. The course focuses on world masterpieces of literary artists, but the works of other artists (composers, painters, etc.) may also be included. (Prerequisites: College level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

HUM 1131   The Art of Being Human

This course is an introduction to the methods, techniques, and scope of the study of the humanities, surveying a range of artistic forms with an emphasis on the relationship between form and meaning as well as on the development of each person's own critical and analytical skills used for interpretation of those forms. The course will also concern itself with the conduct of human life: What makes life good, enriched; in short, worth living. (Prerequisites: College level reading/writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

HUM 1141   Brave New Worlds: The Humanities and Contemporary Culture (1965-Present)

This course concentrates on culture and arts of the last fifty years, focusing on appreciation and critical evaluation of contemporary culture. Content provides interdisciplinary perspectives on literature, music, visual arts, social media, film, and cultural theory, paying particular attention to the social and political forces that influence our current human conditions. (Prerequisites: College level reading and writing skills). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

HUM 1190   Native American Studies

This course is designed to provide students with the opportunity to explore Native American tribal development from a cultural and academic perspective. The course will examine the general makeup of specific tribal cultures in terms of philosophy, religion, literature and social development, by looking at selected stories, songs and other relevant artifacts, both written and visual. (Prerequisites: College-level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

HUM 1841   Studies in Leadership

This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills. Students taking this course will gain basic understanding of the concept of leadership theory and group dynamics while developing a personal philosophy of leadership, and an awareness of the moral and ethical responsibilities of leadership, and an awareness of one's own ability and style of leadership. (Prerequisites: College-level reading and writing ability). (4 C/4 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 9/Ethnic and Civic Responsibility.

HEATING, VENTILATING, & AIR CONDITIONING

HVAC 1010   Quality Soldering

In this course, students will learn the basics of electronic soldering. (Prerequisites: Enrollment in HVAC program or permission of instructor). (1 C/0 lect, 2 lab, 0 OJT).

HVAC 1020   DC/AC Electricity

Student will learn the fundamentals of DC/AC electricity including Ohm's Law, capacitance, inductors, and magnetic circuits. Laboratory exercises will include the use of simulation software. (Prerequisites: None). (4 C/2 lect, 2 lab).

HVAC 1030   Electronic Circuits

Students will learn the principles of semiconductor devices, including diodes, transistors, and amplifiers. Op-amps, power supplies, and voltage regulators are also examined. Simulation software is used in this course. (Prerequisites: Enrollment in the HVAC program or instructor's permission). (3 C/2 lect, 1 lab).

HVAC 1040   Schematic Reading and Troubleshooting

This course covers HVAC system reading along with safety and hazard prevention. Troubleshooting with different types of test equipment is included. (Prerequisites: HVAC 1030 or instructor's permission). (3 C/2 lect, 2 lab).

HVAC 1050   Introduction to Programmable Logic Controls

This course content will consist of loading Programmable Logic Controller software, configuring the equipment, checking inputs and programming output according to input configuration. The Programmable Logic Controller will be used to simulate different typical operating conditions. (Prerequisites: Enrollment in the HVAC program or instructor's permission). (3 C/2 lect, 1 lab).

HVAC 2000   Refrigeration Lab
This course covers lab experiences working with tools, tubing, refrigerants, refrigeration components, electrical and electronic controls, safety aspects, and testing equipment as they relate to the modern HVAC technician. (Prerequisites: HVAC 1020 or BU 1621 and BU 1641 or instructor's permission). (2 C/0 lect, 2 lab).

HVAC 2010   Motors and Controllers
This course covers the principles of various types of HVAC system controllers that are common to the HVAC industry. The student will learn the various types and components of the system controllers and how they function. They will also learn how to operate, maintain, and diagnose problems on system controllers along with learning safety aspects and testing equipment as they relate to the modern HVAC technician. (Prerequisites: HVAC 1050 or instructor's permission). (2 C/1 lect, 1 lab).

HVAC 2020   HVAC Controls
This course covers the principles of various types of HVAC system controllers that are common to the HVAC industry. The student will learn the various types and components of the system controllers and how they function. They will also learn how to operate, maintain, and diagnose problems on system controllers along with learning safety aspects and testing equipment as they relate to the modern HVAC technician. (Prerequisites: HVAC 1050 or BU 2602 or instructor's permission). (2 C/1 lect, 1 lab).

HVAC 2030   Electrical Codes
This course covers the Minnesota licensing requirements and presents the National Electrical Code as it applies to low voltage wiring and circuits that are common to the HVAC industry. The student will learn various code requirements and regulations as they relate to the modern HVAC technician. (Prerequisites: HVAC 1020 or instructor's permission). (1 C/1 lect, 0 lab).

HVAC 2040   HVAC Refrigeration Theory
This course covers fundamentals of refrigeration, tools and materials, basic refrigeration systems, compression systems, refrigerant controls, refrigerants, domestic refrigerators and freezers, and principles of installing and servicing small hermetic systems. (Prerequisites: HVAC 1030 or instructor's permission). (3 C/3 lect, 0 lab).

HVAC 2050   HVAC Systems Theory
This course covers principles of HVAC and air conditioning systems. Furnaces, boiler, air conditioners, heat pumps, economizers, heating & cooling decks, and zones are identified and explained. (Prerequisites: HVAC 1030 or instructor's permission). (4 C/4 lect, 0 lab).

HVAC 2060   HVAC Systems Lab
This course covers principles of HVAC and air conditioning systems. Furnaces, boiler, air conditioners, heat pumps, economizers, heating & cooling decks, and zones are analyzed and operated. (Prerequisites: Enrollment in the HVAC program or instructor's permission). (2 C/0 lect, 4 lab).

INTENSIVE CARE PARAMEDIC

ICP 1000   Introduction to Paramedicine
The EMT-Paramedic has a variety of duties. This course demonstrates the difference between the levels of EMT's and the responsibilities that accompany each level. It also includes topics that the individual must understand in order to function as a paramedic. Such topics include medical/legal, communications, stress, system structure, and lifting mechanics. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in the Paramedic program). (1 C).

ICP 1005   EMS Skills I
This course focuses on the Basic Life Support skills the paramedic must master. Mass-causality and other rescue operations are also covered. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in the Paramedic program). (1 C).

ICP 1006   Disease Pathophysiology
This course covers human disease pathology including the immune response, inflammation, and the body's defense against disease and injury. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in the Paramedic program). (2 C).

ICP 1010   Pharmacology
The intent of this course is to introduce the student to basic pharmacology concepts, principles of drug safety and basic drug categories. Legal aspects of drug administration, drug standards, reference material utilization will be emphasized and specialized medications used in ALS care. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in Paramedic program). (3 C).

ICP 1015   EMS Skills II
This course is focused on patient assessment and advanced airway management skills, including EOA placement, Endotracheal intubation. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (2 C).

ICP 1020   Trauma Care
This course deals with the many aspects of trauma including kinetics, evaluation, management and packaging. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in the Paramedic program). (3 C).

ICP 1025   Cardiac Care
The course will prepare the paramedic student to assess and manage those cardiac emergencies that result from coronary atherosclerosis, along with a number of conditions involving pathology of peripheral circulation. The interpretation of cardiac dysrhythmias receives much emphasis in this course. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (4 C).

ICP 1030   Pathophysiology in EMS
This course deals with the various medical emergencies related to breathing, endocrine disorders, nervous system disorders, allergic reactions, renal system, OB/GYN, toxic exposure, hematology, environmental emergencies, and GI system. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (2 C).

ICP 1035   Special Populations
This course covers areas such as age geriatrics, OB/GYN, neonate, pediatric, and behavioral emergencies. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (1 C).

ICP 1040   EMS Advanced Skills
This course focuses on all advanced skills utilized by the paramedic including defibrillation, IV therapy, and airway management and medication administration. ACLS and PALS courses are also included. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in Paramedic program). (2 C).

ICP 1041   EMS Operations
This course covers EMS operations associated with driving, MCI, rescue, and rural operations. (Prerequisites: ENGL 0840, ENGL 0940, MATH 0098, and enrollment in the Paramedic program). (1 C).

ICP 1045   Ambulance Clinical I
Clinical time spent in various settings of ambulance operations. Each student will administer patient care under the guidance of a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).

ICP 1050   Critical Care Clinical I
Clinical time spent in hospital settings including Emergency Room, Operating Room, Labor and Delivery, and ICU. Students will administer patient care under supervision from a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (2 C).

ICP 1055   Critical Care Clinical II
Clinical time spent in hospital settings including Emergency Room, Operating Room, Labor and Delivery, and ICU. Students will administer patient care under supervision from a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).

ICP 1056   Critical Care Clinical III
(Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in the Paramedic program). (2 C).

ICP 1060   Ambulance Clinical II
Clinical time spent in various settings of ambulance operations. Each student will administer patient care under the guidance of a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).

ICP 1065   Ambulance Clinical III
Clinical time spent in various settings of ambulance operations. Each student will administer patient care under the guidance of a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).

ICP 1070   Paramedic Preparation
This course is designed to prepare the student for certification testing as well as preparing for the work environment. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program).

INFORMATION STUDIES

INFS 1115   Introduction to Information Literacy
An introduction to the organization, retrieval, and critical evaluation of information from print, electronic, and other non-print

sources. Students will learn how information is organized, the concepts of the information research process, and how to formulate effective search strategies. Students will also learn how to critically evaluate information and use it ethically. Students will be able to apply the skills and concepts learned from this course to research assignments in their other courses. (Prerequisites: None). (1 C).

Information Technology Specialist

ITS 1010   AS/400 Operations
An introduction to the operation of an integrated midrange computer system. Procedures covered are initialization, security, configuration, displays, and system support. The course is designed to teach basic facilities of the system. Displays are used to monitor job queues, output queues, active jobs, and peripheral devices. (Prerequisites: Permission of instructor). (3 C/2 lect, 2 lab).

ITS 1015   AS/400 Facilities
Students will study intermediate to advanced levels of the following AS/ 400 topics: single level storage objects, libraries, library lists, user profiles jobs, job descriptions, commands, menus, basic message handling, physical and logical files, display files, Program Development Manager (PDM), Screen Design Aid (SDA), Data File Utilities (DFU), Control Language (CL) programming, Copy File functions, save/ restore, journaling, and security. (Prerequisites: Enrolled in AS/400 Program and successful completion of ITS 1010). (3 C/2 lect, 2 lab).

ITS 1107   Groupware in Business
This course provides information about use, installation, and management of Lotus Notes with emphasis on AS/400 use. It will include configuring a Lotus Notes installation, working with both the client and server programs, End User desktop, database, mail and calendar functions. The student will create a database, forms, and views. (Prerequisites: ITS 1010, NETW 1040). (3 C).

ITS 1112   System Administration Scripting
This course will prepare students with a basic-to-advanced level of Control Language (CL) programming, message handling, and debugging techniques. Emphasis is on efficient programs and techniques for optimum system performance. (Prerequisites: ASF 2210). (3 C).

ITS 1117   Customer Service in the Computing Industry
By assessing the customer's needs and changing expectations, businesses can increase profitability. This course addresses those general business needs as well as those needs specific to the computing industry. Students will be taught the skills required to motivate fellow employees to higher levels of service excellence. Use of surveys and statistics as tools of measurement will be discussed. (Prerequisites: None). (2 C).

ITS 1127   Client/Server Concepts
This course is designed to help students understand the expanding role of client/server systems in business. The fundamental goals and benefits of client/server systems will be presented and analyzed. Projects include reports and programs in team settings. (Prerequisites: NETW 1040 or equivalent networking experience). (3 C).

ITS 1142   Introduction to Database/SQL
This course is an introduction to database design and implementation. The goal of this course is to provide students with a clear understanding of Database Management Systems (DBMS) and how they can be used in industry. Emphasis will be divided evenly between both the theoretical concepts of database design and practical database implementation. At the end of this course the student should have an appreciation of the types of data models, types of DBMS's, the SQL language and enough information to understand many of the issues in planning, implementing, and managing a DBMS. (Prerequisite: ITS 1010). (2 C).

ITS 1152   Advanced Database/SQL
The Advanced Database/SQL course will build on the basics learned in ITS 1142 Introduction to Database/SQL. This course will explore topics such as performance, capacity planning and DBMS management. This course will also expose students to other DBMS systems such as Oracle, Sybase, and/or DB2. Students will have the opportunity to evaluate several DBMS systems and perform a compare and contrast through hands-on projects. (Prerequisites: ITS 1142). (3 C).

ITS 1199   AS/400 Seminar
Discussion of job activities and problems. Emphasis is placed on the operation of an integrated midrange computing system in business planning, decision planning, and daily operations. (Co-requisites: ITS 2299). (1 C). Offered: Spring.

ITS 1210   Operating System Support Concepts
This course will introduce the basics of installation and troubleshooting desktop operating systems with the primary focus on various Microsoft Windows products. The student will learn to solve hardware and software conflicts during installation and upgrading of computer systems. This course may also help provide a fundamental preparation for the COMPTIA A+ OS Technologies certification. (Prerequisite: None). (3 C).

ITS 1220   Workstation Operating Systems

This course will build on the fundamentals of desktop operating systems presented in course ITS 1210. The student will focus on current business class Microsoft operating systems such as Windows 2000 and equivalents. Students will be exposed to the various tools for the administration and configuration of workstation operating systems in a business environment. This course may also help to prepare students for industry standard certification examinations such as Microsoft Windows 2000 Professional and its successors. (Prerequisite: ITS 1210). (3 C).

ITS 1410   Help Desk I

This is the first in a series of four courses, to prepare learners for the world of work in a help desk environment. Lecture covers the general structure and design of a help desk, the concepts, theories, and philosophies of technical support and customer service, managerial, technical, and psychological issues, all with an emphasis on customer service. The course provides an overview of the wide range of topics that an entry-level technical support specialist would be expected to know in preparation to meet the needs of future employers and for the work required in the succeeding Help Desk courses. (Prerequisite: None). (1 C/1 lect, 0 lab).

ITS 1420   Help Desk II

This is the second in a series of four courses, designed to prepare the learners for the world of work in a help desk environment. This course deals primarily with developing tools management skills, diagnostic technique and working in the job environment. The learner will develop interpersonal skills dealing with customers. Learners will also complete case studies to help prepare them for the help desk environment. (Prerequisite: ITS 1410). (1 C/1 lect, 0 lab).

ITS 1430   Help Desk III

This is the third in a series of four courses, designed to prepare the learner for the world of work. Teamwork and TQM practices are important techniques used in a technical support department's process improvement. This course prepares the learner to work in a technical support environment with an emphasis on customer service, training, team building, process improvement, and the Total Quality Management (TQM) philosophy. Group and team activities are used to enhance management skills. Upcoming internship and professional certification are also stressed and incorporated. (Prerequisite: ITS 1420). (1 C/1 lect, 0 lab).

ITS 1440   Help Desk IV

This is the fourth in a series of four, one credit courses, designed as a capstone course preparing the learner for the world of work. Teamwork and TQM practices are important techniques used in a technical support department's process improvement. This course prepares the learner to work in a technical support environment with an emphasis on customer service, training, team building, process improvement, and the Total Quality Management (TQM) philosophy. Group and team activities are used to enhance management skills. Upcoming internship and professional certification are also stressed and incorporated. (Prerequisite: ITS 1430). (1 C/1 lect, 0 lab).

ITS 1510   Fundamentals of Unix

This course will introduce the fundamental concepts of managing a computer system in a business environment. Students will be introduced to common Unix tools, shell programming, applications and the user interface. Topics such as installation, configuration, security, communications and backup/recovery will be explored. (Prerequisite: NETW 1040). (3 C).

ITS 2010   Systems Administration I

This course will introduce the fundamental concepts of managing a computer system in a business environment. Topics such as installation, configuration, security, communications and backup/recovery will be explored. Students will address the day-to-day requirements of managing a computer system such as the AS/400 or iSeries. (Prerequisites: ITS 1010 and ITS 1142). (3 C).

ITS 2015   Systems Administration II

This course will build on the concepts learned in System Administration I by exposing the student to other operating systems such as Microsoft and Unix. Topics such as installation, configuration, security, communications and backup/recovery will be explored. Students will address the day-to-day requirements of managing a computer system such as Windows 2000 Server and its successors. (Prerequisites: ITS 2010 or permission of instructor). (3 C).

ITS 2020   AS/400 Interactive Programming

This course is specifically designed to focus on business applications of web sites. Students will explore different web servers and web development tools as well as learn how to develop and manage a website for commercial use. Students will use a variety of software including Apache, WebSphere Studio, Netscape Composer and others. (Prerequisites: ITS 1127).

ITS 2130   Network Administration

This course will expand on concepts of computer networking and focus on the administration and maintenance of an intranet environment. Through concepts and lab instruction, students will learn advanced networking skills that include: daemon management, trouble-shooting, firewall configuration and server integration. This course will also help to prepare students for industry certification examinations. (Prerequisite: ITS 1220 and NETW 1040 or equivalent networking experience). (3 C).

ITS 2135   Internetworking Security

The primary focus of this course is Internetworking Security. Students will learn the security risks inherent to the interconnection of physical networks and the corresponding countermeasures. Advanced topics include fundamentals of encryption, firewall operation, common tactics, countermeasures, popular Web server vulnerabilities, and data interception over public mediums. Recommended entry skills include: basic networking knowledge, client and server operating system configurations, and basic operating system security; college level reading and writing. (Prerequisites: ITS 2130). (3 C).

ITS 2136   Intrusion Detection and Control
This course will provide students with hands-on and theoretical knowledge of network and computer systems intrusion detection and management concepts. Topics including; security terminology virus operations, operating system and Web browser vulnerabilities, firewall operation standards, and computer fraud will be explored. Recommended entry skills include: basic networking knowledge, client and server operating system configurations, and basic operating system security; college level reading and writing. (Prerequisites: ITS 2130 or equivalent or permission of instructor). (3 C/2 lect, 2 lab).

ITS 2299   Internship
Planned and supervised occupational work experience at a work site, which includes micro, midrange, and/ or mainframe computer systems. Job tasks are organized to those of a beginning, intermediate, and an advanced nature to provide exposure to the operation of the system(s). (Prerequisites: Permission of instructor). (1-3 C/ 75 hours of work per credit).

LAW ENFORCEMENT

LAWE 1105   Introduction to Law Enforcement
Major topics of the course include the history and evolution of law enforcement, police operations and procedures, the court system, corrections and the juvenile justice system. (Prerequisites: None). (3 C/3 lect, 0 lab).

LAWE 1107   Ethics in Law Enforcement
Police Ethics includes definitions, perceptions, concerns, and the history of police deviance with the forging of an occupation. The working environment is discussed. The ideology and culture of police and the motive and justification for breaking normative bonds are covered. Police brutality, abuse of authority, police prejudice, and discrimination are discussed. Drug-related police deviance, varieties of police deviance, internal and external controls influencing police deviance and corruption, and prospects for controlling deviance are also included. (Prerequisites: None). (3 C/3 lect, 0 lab).

LAWE 1108   Introduction to Corrections
This course will cover the history and evolution of Corrections from early European times through present day America. It will then move to the current state of Corrections and the daily challenges that correctional officers go through. The student will also learn about the different type of offenders and inmates that they would be expected to deal with on a daily basis. The class will also discuss the differences between State, local and Federal institutions. (Prerequisites: None). (3 C/3 lect, 0 lab).

LAWE 1112   Introduction to Criminal Investigation
This course will cover preliminary investigations, investigative techniques, and the investigation of specific offenses. Discussions will include the importance of determining the offenders method of operation along with the specific elements of each criminal offense. Specific investigative techniques will be discussed along with the potential of lab applications. (Prerequisites: None). (4 C/3 lect, 1 lab).

LAWE 1115   Basic Firearms for Law Enforcement
This class will familiarize students with and examine students on the legal aspects on Use of Force in Law Enforcement and Firearms Usage. Topics of lecture will include the laws governing use of force, including authorized use of deadly force by police offers. Students should develop a fluid understanding of the use of force continuum. Students will then be given instruction on the use and operations of the handgun and then be taken to the range and instructed in the different methods of shooting positions until the students can complete a certified shooting course. Completion of this course is a P.O.S.T. requirement for licensure in the state of Minnesota. (Prerequisites: Enrollment in the Law Enforcement program; completion of or current enrollment in LAWE 1105). (3 C/1 lect, 2 lab).

LAWE 1117   Introduction to Tactical Combat Shooting for Law Enforcement
This course will develop the basic skills that students have involving firearms. Students will be given lecture and demonstration in how to develop the accuracy and speed involved with combat handgun shooting in law enforcement. Students will be given lecture and demonstration to develop their skills with shotgun shooting at a moving target. The student will be given instructed and demonstration in the use of the shotgun for tactical use. Students will be taken to the range and will complete courses of fire that will enhance their shooting skills and complete a certified shooting course. (Prerequisites: Enrollment in the Law Enforcement Program; completion of LAWE 1115). (1 C/0 lect, 2 lab).

LAWE 2110   Police Report Writing
Major topics of the course will include field notes, report structure and organization, basic grammar, data retrieval and use, and

uses of police reports. (Prerequisites: ENGL 1117, LAWE 1105, LAWE 1112 prior to enrollment in this course). (2 C/2 lect, 0 lab).

LAWE 2117 Minnesota Statutes
The major content of this course deals with statutes that the new peace officer would most likely deals with during the course of their first years of employment. (Prerequisites: College level reading and writing, LAWE 1105, 1112). (3 C/3 lect, 0 lab).

LAWE 2118 Minnesota Traffic Statutes
Designed to familiarize students with the Minnesota Traffic Code as prescribed by the Minnesota Board of Peace Officer Standards and Training. Students will learn the importance of a proper knowledge of Traffic Statues. Students will also learn how to take a situation and decide what charges should be filed (what laws have been broken). (Prerequisites: ENGL 1117, LAWE 1105, LAWE 1112). (2 C/2 lect, 0 lab).

LAWE 2119 Minnesota Statutes and Traffic Law
The major content of this course deals with Criminal statutes that the new peace officer would most likely deal with during the course of their first year of employment as well as formalization of Minnesota Traffic Code as prescribed by the Minnesota Board of Peace Officer Standards and Training. Students wil learn the importance of a proper knowledge of Criminal and Traffic Statutes. Students will also learn how to take a situation and decide what charges should be filed (what laws have been broken). (Prerequisites: College level reading and writing; LAWE 1105 and 1112, or open to Protective Agent certificate program). (3 C).

LAWE 2120 Human Behavior for Law Enforcement
The major focus of this course deals with the types of reactions peace officers may encounter with people who are experiencing emotional or psychological difficulties. (Prerequisites: College level reading and writing, LAWE 1105, 1112, PSYC 1611, and Enrollment in the Law Enforcement program; PSYC 1611). (2 C/2 lect, 0 lab).

LAWE 2121 Human Behavior and Ethics in Law Enforcement
The major focus of Human Behavior in this course deals with the types of reactions peace officers may encounter with people who are experiencing emotional or psychological difficulties. Police Ethics includes definitions, perceptions, concerns, and the history of police deviance with the forging of an occupation. The working environment is discussed. The ideology and culture of police and and the motive and justification for breaking normative bonds are covered. Police brutality, abuse of authority, police prejudice, and discrimination are discussed. Drug-related police deviance, varieties of police deviance, internal and external controls influencing police deviance and corruption, and prospects for controlling deviance are also included. (Prerequisites: College level reading and writing; LAWE 1105, LAWE 1112, PSYC 1611 and enrollment in the Law Enforcement pgoram). (3 C/3 lect, 0 lab).

LAWE 2122 Criminal Procedure
The major topics of this course include the content and meaning of the fourth, fifth, and sixth Amendment to the United States Constitution; the rules of arrest, search and seizure; the legalities of confessions; proper identification procedures; and court procedures. (Prerequisites: College level reading and writing, LAWE 1105, 1112, and Enrollment in the LAWE Program). (3 C/3 lect, 0 lab).

LAWE 2125 Community Policing and Service
Major topics of the course will include police administration, various police duties and responsibilities, police statistics and research, and police work involving community service. (Prerequisites: College level reading and writing, LAWE 1105, 1112, and Enrollment in the Law Enforcement program; completion of general education requirements for the program). (1 C/1 lect, 0 lab).

LAWE 2127 Juvenile Law and Procedure
Juvenile Law and Procedure will cover a wide range of contacts that law enforcement, correctional and probation officers may have with juveniles. Students will be introduced to the Juvenile Court system and the philosophy and theory for dealing with juveniles. Juvenile delinquency, status offenses, juvenile traffic offenders and Children in Need of Protection and Services will be some of the focuses of this course. Students will also become familiar with Minnesota Juvenile Statues. (Prerequisites: LAWE 1105, LAWE 1112 or prior completion of a Bachelors Degree from an accredited University). (3 C/3 lect, 0 lab).

LAWE 2130 Practical Exercises for Law Enforcement
The course is designed to give students the ability and confidence to cope with physical situations, which may confront peace officers; to eliminate excessive use of force by officers; and allow officers to appropriately react to situations with a swift, efficient, and appropriate solution whether physical or verbal. Students will also learn about the different types of police patrol and response to calls along with the safe and proper operation of their patrol vehicle. They will then take the learned concepts and demonstrate their abilities on the I-SIM driving and PRISim use-of-force simulators. (Prerequisites: LAWE 1105, 1112, College level reading and writing). (3 C/0 lect, 0 lab).

LAWE 2135 Minnesota POST Exam Preparation
This course is designed to further educate and prepare the student for the Minnesota POST (Peace Officer Standards and Training) exam. This course will discuss topics and questions similar to those found on the Minnesota POST test. The course will broaden students' knowledge of the Minnesota Criminal and Traffic codes. Current students, graduates from any law enforcement program,

individuals pursuing part-time POST licensing or law enforcement personnel from other states who are required to take the POST Reciprocity exam are encouraged to enroll. (Prerequisites: None). (2 C/2 lect, 0 lab).

LAWE 2140   Patrol Operations
This course is designed to give students the ability and confidence to cope with physical situations, which may confront peace officers; to eliminate excessive use of force by officers; and allow officers to appropriately react to situations with a swift, efficient, and appropriate solution whether physical or verbal. Students will also learn about the different types of police patrol and response to calls along with the safe and proper operation of their patrol vehicle. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: Completion of: LAWE 1105, LAWE 1112, LAWE 2117, LAWE 2118, LAWE 2110, and LAWE 2125. (Prequisites: LAWE 1105, LAWE 1112, EMC 1121 or equivalent training, PHED 1189 or instructor permission). (3 C).

LAWE 2250   Internship for Law Enforcement
This course offers students the opportunity to interact with current law enforcement agencies. Students will be given the opportunity to ride along with both large and smaller agencies in Southeast Minnesota. (Prerequisites: Enrollment in the Law Enforcement program; completion of LAWE 1105 and LAWE 1112). (2 C/0 lect, 2 lab).

LAW ENFORCMENT SKILLS

LAWS 2101   Crime Scene Processing
Crime Scene Processing covers a study of responsibilities and duties of officers conducting a preliminary investigation of a crime scene. Topics include recognition, preservation, and recovery of physical evidence, crime scene photography, sketching and recovery of latent fingerprints. This course focuses on lab activities allowing students to develop skills relative to crime scene processing and evidence collection and presentation. (Prerequisites: Sophomore in Law Enforcement program, Law Enforcement Certificate student or approval by another Minnesota Professional Peace Officer Education Program Coordinator; completion of psychological exam and completion of a physical exam. Completion or concurrent enrollment in LAWE 2110, LAWE 2117, LAWE 2118, LAWE 2122, LAWE 2130, and EMC 1121). (2 C/1 lect, 1 lab).

LAWS 2102   Traffic Enforcement
Traffic Enforcement covers instruction and practical experiences in radar operation and DUI detection, testing, and processing. Students demonstrate their ability in simulated situations through the use of appropriate methods and by preparing concise, accurate reports. Elements of traffic offenses are analyzed and applied to hypothetical situations. Students learn the basic theory and use of radar and current trends in violations and arrest. (Prerequisites: Sophomore in Law Enforcement Program, Law Enforcement Certificate student, or approval by another Minnesota Professional Peace Officer Education Program Coordinator; completion of a psychological exam; completion of a physical exam; and ability to pass the RCTC physical agility test. Completed or concurrently taking: LAWE 2110, LAWE 2117, LAWE 2118, LAWE 2122, LAWE 2130, and EMC 1121). (2 C/0 lect, 2 lab).

LAWS 2103   Defensive Tactics
Defensive Tactics works to install confidence to overcome physical resistance and to control the person under arrest or being restrained. This course aids to reduce the likelihood of injury to the peace officer, minimize the use of excessive force and positive self-image with physical and mental conditioning. Basic techniques on how to best defend against certain common types of attack and reasonable force necessary to overcome the resistance being offered, analysis of physical confrontations and basic principles are demonstrated with practical exercises. Lectures include terminology used when documenting and testifying in court regarding the use of force compliance techniques. The use of chemical agents is also covered. Students will learn proper techniques and then be exposed to chemical agents. (Prerequisites: Sophomore in Law Enforcement Program, Law Enforcement Certificate student, or approval by another Minnesota Professional Peace Officer Education Program Coordinator; completion of a psychological exam; completion of a physical exam; and ability to pass the RCTC physical agility test. Completed or concurrently taking: LAWE 2110, LAWE 2117, LAWE 2118, LAWE 2122, LAWE 2130, and EMC 1121). (2 C/0 lect, 2 lab).

LAWS 2104   Firearms for SKILLS
This course covers the use of deadly force, firearms safety, care and cleaning of service weapons, and firearms shooting principles. The course focuses on student's decision-making ability and firearms shooting ability. Students will shoot handguns, shotguns and rifles with a variety of different types of ammunition. (Prerequisites: Sophomore in Law Enforcement program, Law Enforcement Certificate student or approval by another Minnesota Professional Peace Officer Education Program Coordinator; completion of a psychological exam and completion of a physical exam. Co-requisites: LAWE 2110, LAWE 2117, LAWE 2118, LAWE 2122, LAWE 2130, and EMC 1121). (2 C/0 lect, 2 lab).

LAWS 2105   Patrol Practicals
This course covers the factors and duties relative to patrol and basic communication systems. Proper patrol techniques relative to handling a variety of different situations will be covered. This course includes knowledge and skills to preserve the peace and tranquility of the community and to protect the lives and property of the people who live in and visit that community. This course also covers patrol functions and patrol techniques relative to beat patrol. Officer survival, misdemeanor and felony crimes in progress, searches of buildings and persons, traffic stops, and dealing with field problems. Current issues involving Active Shooter

and proper officer response will be demonstrated. Accident investigation and defensive driving issues are also covered in this class. Accident investigations focus on basic on-scene investigations of traffic accidents. Evasive driving focuses on driving maneuvers. Topics of hazardous materials and blood borne pathogens are also covered.(Prerequisites: Sophomore in Law Enforcement program, Law Enforcement Certificate student or approval by another Minnesota Professional Peace Officer Education Program Coordinator; completion of a psychological exam and completion of a physical exam. Co-requisites: Completion or concurrent enrollment in LAWE 2110, LAWE 2117, LAWE 2118, LAWE 2122, LAWE 2130, and EMC 1121). (3 C/0 lect, 3 lab).

LEARNING COMMUNITY

LCOM 1001   Write and Succeed
This learning community combines an introduction to college reading and writing with "On Course", a college success course. This is a combination of ENGL 0980 and FYEX 1000. (4 C).

LCOM 1002   English/Music Learning Community
This is a learning community course.

LCOM 1003   English/Reading Learning Community
This is a learning community course that will focus on the theme "Courage: Recognizing it in others; finding it in ourselves".

LCOM 1004   Math/Speech Learning Community
This is a learning community course.

LINGUISTICS

LING 2030   Introduction to Socio-Linguistics
This course looks at the interrelationship of language and society. It looks at the social aspects of language, including usage, attitudes towards usage of various varieties of language, and issues of language planning and policy. Students will examine factors that affect their choice of language and how language affects the hearer¿s perception of the speaker.

MATHEMATICS

MATH 0081   Developmental Mathematics I
This is a self-paced, skill mastery developmental mathematics course. It is an individualized, computer based learning experience. The instructor will provide instruction, guidance, and monitor progress. Students must complete a minimum of four modules with 75% mastery to pass the course; however students have the option of completing as many modules as needed. Developmental Mathematics I is a pre-requisite course to Developmental Mathematics II where students will be able to continue their individual developmental mathematical studies without repetition of previously completed modules. Based on the student¿s career goals, a set of required modules from the following list will be determined. In the event that the student¿s career goals change, the required modules may also be changed.

MATH 0082   Developmental Mathematics II
This is a self-paced, skill mastery developmental mathematics course. It is an individualized, computer based learning experience. The instructor will provide instruction, guidance, and monitor progress. Students must complete a minimum of four modules with 75% mastery to pass the course; however students have the option of completing as many modules as needed. Developmental Mathematics II is a pre-requisite course to Developmental Mathematics III where students will be able to continue their individual developmental mathematical studies without repetition of previously completed modules. Based on the student¿s career goals, a minimum of four of the required modules from the following list will be determined. In the event that the student¿s career goals change, the required modules may also be changed. (Prerequisites: MATH 0081). (3 C).

MATH 0083   Developmental Mathematics III
This is a self-paced, skill mastery developmental mathematics course. It is an individualized, computer based learning experience. The instructor will provide instruction, guidance, and monitor progress. Students must complete a minimum of four modules with 75% mastery to pass the course; however students have the option of completing as many modules as needed. Based on the student¿s career goals, a set of required modules from the following list will be determined. In the event that the student¿s career goals change, the required modules may also be changed. (Prerequisites: MATH 0082). (3 C).

MATH 0084   Developmental Mathematics IV

This is a continuation of MATH 0081 or MATH 0082 or MATH 0083 designed for the student needing less three modules of Developmental Math. MATH 0084 can be taken at anytime a student needs only one or two modules to complete their mathematics pre-requisites. (Prerequisites: MATH 0081 or MATH 0082 or MATH 0083). (1-2 C).

MATH 0093   Pre-Algebra
This course is for the student whose placement test score indicates the need for a review of fractions, decimals, ratios, proportions, percents, signed numbers, polynomials/like terms, and solving basic linear equations in one variable before beginning elementary algebra. (Prerequisite: Appropriate score on the Math placement test). (3 C).

MATH 0098   Elementary Algebra
This course is designed to provide the fundamentals of algebra using the set of rational numbers. It includes algebraic expressions, polynomials (including factoring), integer exponents, and equations and linear inequalities (one and two variables). The successful completion of this course prepares the student for intermediate algebra. (Prerequisites: Appropriate score on placement test or successful completion of MATH 0093 with grade of C or higher). (4 C).

MATH 0099   Intermediate Algebra
This course expands techniques, skills, and applications from the set of rational numbers to the set of real numbers. It includes radicals, quadratic equations and inequalities, systems of linear equations in three variables, functions, and an introduction to conics. Successful completion of this course prepares the student for entry-level college mathematic courses. (Prerequisites: Appropriate score on placement test or successful completion of MATH 0098 with a grade of C or higher). (4 C).

MATH 0100   Combined Elementary and Intermediate Algebra
This course presents both Elementary and Intermediate Algebra in one semester. It includes the fundamentals of algebra, algebraic expressions, polynomials (including factoring), linear and quadratic equations (in one and two variables), rational expressions and equations, exponents, radicals, linear and quadratic inequalities (one and two variables), systems of linear equations (two and three variables), functions, and an introduction to conic sections. Students enrolling in this course must have a good background in pre-algebra and must be prepared to devote sufficient time and effort to complete the standard two-course sequence in one term. Restriction: Credit will not be granted for both MATH 0100 and MATH 0098/MATH 0099 series. Successful completion of this course prepares the student for entry-level college mathematics courses. (Prerequisites: Appropriate score on placement test or successful completion of MATH 0093 with a grade of A). (5 C).

MATH 1015   Applied Technical Math
This course covers the basic arithmetic skills of fractions, decimals, percent and ratio/proportion. In addition, geometry, measurement, basic statistical skills, basic algebraic expressions, linear equations, and basic right triangle trigonometry are presented. Emphasis is on problem solving with specific application packets designed to interface with the student's core program. Cooperative learning activities and technology are used to support learning. (Prerequisites: None). (3 C/2 lect, 1 lab).

MATH 1025   Applied Health Sciences Mathematics
This course covers the basic arithmetic skills of fractions, decimals, percents, ratios and proportions. In addition, English and Metric measurement systems and basic statistical skills are presented. Emphasis is on problem solving with specific application packets designed to interface with the student's core health science program. Cooperative learning activities are used to support learning. (Prerequisites: None). (2 C/2 lect, 0 lab).

MATH 1050   Foundations of Mathematics: Algebra Emphasis
This course is one of two general education mathematics courses focusing on concepts, operations, and models involved with numeration systems, sets, whole numbers, decimals, integers, rational numbers, real numbers, equations, and functions, with emphasis on estimation, problem solving, and mathematical reasoning. Active and cooperative learning are also emphasized with E-manipulatives, and computer technology incorporated throughout the course. (Prerequisites: Minimum grade of C in MATH 0099 or higher, or permission of instructor). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

MATH 1060   Foundations of Mathematics: Geometry Emphasis
This course is one of two general education mathematics courses focusing on concepts and models involved with probability, statistics, geometry, and measurement, with emphasis on estimation, problem solving, and mathematical reasoning. Active and cooperative learning, E-manipulatives, and computer technology are incorporated throughout the course. Completion of Math 1050 is NOT a prerequisite. (Prerequisites: Minimum grade of C in MATH 0099 or higher, and permission of instructor). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

MATH 1101   Math for Technology
This course is a prerequisite for all technology math students. Important technical math skills including graphing calculator usage for scientific and engineering notation will be covered. Basic algebraic skills are reviewed and function concepts are introduced. Graphing calculator usage is required. (Prerequisites: MATH 0098 or appropriate ASAP Score). (1 C/l lect, 0 lab).

MATH 1102   College Math

This course is designed for technology students. Topics include: linear and quadratic equations with applications, systems of equations, determinants and matrices, right and oblique triangle trigonometry with graphing, ratio/proportion and variation, and exponential and logarithmic functions. Graphing calculator usage is required. (Prerequisites: MATH 1101). (4 C/4 lect, 0 lab).

MATH 1104   College Calculus for Technology Programs
A course for technology students stressing algebraic and trigonometric skills and the understanding and applications of differential and integral calculus. (Prerequisites: MATH 1102 or equivalent; college reading level and high school writing level). (5 C).

MATH 1111   Contemporary Concepts in Mathematics
A problem-solving based Liberal Arts course for the student who wishes to acquire a broad background in mathematics. These topics will be covered: Geometry, Logic, Finance Mathematics, Probability, and Statistics. Other topics may be selected from the following list: Numeration Systems, Trigonometry, Voting Methods, Apportionment, Graph Theory, Sets, Discrete Mathematics, Number Theory, Game Theory, and GIS. (Prerequisites: Successful completion of MATH 0098 (or equivalent) with a grade of C or better or appropriate score on RCTC placement test). (3 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

MATH 1112   Mathematical Reasoning
This course is designed for Elementary Education majors or anyone desiring to continue his/her study of liberal arts mathematics topics. The purpose of the course is to further develop students' mathematical reasoning and effective thinking skills. General topics to be covered include: Problem Solving, Number Theory, Infinity, Geometry--fractal and 3-dimensional, Topology, Graph Theory, Probability, Statistics, and Voting Methods. Assignments requiring the Geometer's Sketchpad software are incorporated. (Prerequisites: Successful completion of MATH 1111 or higher with a grade of C or higher). (3 C).

MATH 1113   Finite Math With College Algebra
This course is an introductory course in mathematical modeling and decision making with emphasis on applications. (Prerequisites: MATH 0099 or MATH 0100 with grade of C or better; placement score for college level reading and writing). (4 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

MATH 1115   College Algebra
The first college level algebra course. Topics include but are not limited to: Polynomial, Rational, Radical, Exponential, and Logarithmic functions and their Inverses, solving and graphing higher order equations, optimization applications, methods of solving systems of equations, and conic sections. (Prerequisites: Successful completion of MATH 0099 with grade of B or better recommended or MATH 0100 or equivalent or appropriate score on RCTC placement test). (3 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

MATH 1117   Precalculus
For students requiring further experience with advanced algebra prior to Calculus. Topics include Trigonometric Functions and their inverses, Law of Sine's, Law of Cosines, Vectors, complex numbers, linear and non-linear inequalities and equations; graphing polar equations, mathematical induction, analytic trigonometry, sequences, series, and matrices, higher order rational, polynomial, exponential, and logarithmic functions. (Prerequisites: Successful completion of MATH 1115 with grade of C or better or appropriate score on RCTC placement test). (4 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

MATH 1119   Applied Calculus
This course is a college level introductory calculus course with emphasis on applications. Topics include but are not limited to: limits, derivatives, continuity, first and second derivative test for relative extrema, applications of absolute max/min, integration, continuous money flow, partial derivatives. (Prerequisites: MATH 1113 or MATH 1115 or MATH 1117 or appropriate placement score). (3 C). MNTC: Goal 2/CT, Goal 4/MA.

MATH 1127   Calculus I
This mathematics course is a first semester calculus course including topics: limits, continuity, differentiability, applications of differentiation including related rates, optimization, linear approximation and Newton¿s method, function sketching, integration with applications including area, volumes of rotation, and work, introduction to the calculus of inverse functions including exponential, logarithmic, and trigonometric functions. (Prerequisites: 4 years of high school mathematics including trigonometric functions with a grade of "B" or higher or MATH 1117 and/or appropriate placement from the current placement test). (5 C).

MATH 1128   Calculus II
This mathematics course is a second semester calculus course including topics of: inverse functions (exponential, logarithmic, trigonometric, etc), techniques of integration, applications including arc length, surface area, force, and centers of mass, parametric forms including polar forms, sequences and series including Taylor series. (Prerequisites: MATH 1127 and/or successful completion of Calculus I material). (5 C).

MATH 1930   Linear Algebra: Honors
This course is a Honors Liberal Arts mathematics course with topics including: Systems of Linear Equations and Matrices,

Determinants, Euclidean and General Vector Spaces, Linear Transformations, Eigenvalues,, Eigenvectors, diagonalization, matrix decompositions, and real world applications. Students will satisfy Honors course requirements #1, 2, 3, 4, and 5. (Prerequisites: Honors program eligibility or consent of instructor). (4 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

MATH 2208   Fundamentals of Statistics
This course is an introduction and overview of math statistics. Topics will include (but not limited to) descriptive statistics, probability and hypothesis testing. Computers and graphics calculators will be used extensively throughout the class in the classroom and computer lab setting. (Prerequisites: MATH 0099 or MATH 0100 or MATH 1111 with a grade of C or better or appropriate math placement test score; placement at college level reading and writing). (4 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

MATH 2218   Discrete Mathematics
A course for mathematics and/or computer science majors. Topics include sets, relations, symbolic language, graph theory, matrices, and Boolean algebra. (Prerequisites: Successful completion of MATH 1115 or equivalent with a grade of C or better or appropriate score on RCTC placement test; College level reading). (4 C).

MATH 2237   Multivariable and Vector Calculus
This mathematics course is first in a sequence which is a continuation of the first year of calculus. Topics are selected from the following: coordinate and vector geometry, vector valued functions, velocity-acceleration and curvature, cylindrical and spherical coordinate systems, partial differentiation and applications, double and triple integrals, Green's - Stoke's Divergence Theorems, Frenet Formulas. (Prerequisites: MATH 1128; college level reading). (5 C).

MATH 2238   Differential Equations and Linear Algebra
An in-depth look at topics such as mathematical models, first-order differential equations, applications of linear and nonlinear equations, and other topics. (Prerequisites: MATH 2237; college level reading). (5 C).

MATH 2291   MATH: Specially Designed Independent Study
This course is for the students whose placement tests indicate the need for a review of fractions, decimals, ratios, proportions, percents, signed numbers, like terms, and simple linear equations before beginning Elementary Algebra.

MATH 2350   Introduction to Mathematical Statistics
This course is an introduction to mathematical statistics. Topics will include probability, discrete and continuous random variables, estimation, hypothesis testing, and regression analysis. Computers and graphics calculators will be used extensively throughout the class in the classroom and computer lab setting. (Prerequisites: MATH 1119 or MATH 1127). (4 C).

MASS COMMUNICATIONS

MCOM 1090   TV Production Experience
This course covers some basics of Television history and production. This course articulates for students who have completed TV Production courses at high schools. (Prerequisites: None). (3 C/3 lect, 0 lab).

MCOM 1106   American Cinema
This course surveys Hollywood filmmaking as an art form, economic force, and as a system of cultural communication. Stylistic elements are examined from the perspective of various genres and time periods. Students will learn the language of American cinema; increase their understanding of how films work as art and how films convey meaning as cultural artifacts. Students will also learn analysis skills to become more active and critical viewers. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

MCOM 1110   Introduction to Mass Communication
This course will cover the nature, function and responsibilities of mass media. Areas covered include media literacy, propaganda, newspapers, magazines, radio, music recording, book publishing, advertising, films, public relations, freedom of speech/press, politics and media ethics. Pro- and anti-social effects of media consumption will also be examined. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and Social and Behavioral Sciences, Goal 9/Ethnic and Civic Responsibility.

MCOM 1122   Beginning Newswriting
This course covers principles of writing news with emphasis on accuracy, brevity, clarity and journalistic form. Techniques of news gathering, lectures, critiques and practical writing labs are included as well as editing, headline writing and feature writing. Associated Press (A.P.) style is used and participation with student publications is required. (Prerequisites: some keyboarding skills). (3 C/3 lect, 0 lab).

MCOM 1132   Principles of Advertising

This course covers theory, principles, criticism and functions of advertising and its economic and social roles. An introduction to advertising writing, typography and layout are included as well as an introduction to broadcast advertising production and presentation. (Prerequisites: None). (3 C/3 lect, 0 lab).

MCOM 1140   Principles of Broadcasting
This course will enable the student to develop an understanding of broadcast station operation, production process, programming, management, sales, and engineering. History to include government regulations is covered. Students will learn the basics of electronic media to include writing commercials. (Prerequisites: None). (3 C/3 lect, 0 lab).

MCOM 1161   Publications Laboratory I (Newspaper)
This course involves participation in college newspaper activities. Staff assignments will be given to students based on individual needs and abilities. (Prerequisites: None). (1 C).

MCOM 1162   Laboratory for Online Publications I (Online Publications)
This course involves participation in college online publication activities. Staff assignments will be given to students based on individual needs and abilities. (Prerequisites: None). (1 C).

MCOM 1190   Video Production
This course will enable the student to develop a foundation of video production skills including production techniques such as planning, scripting, image composition, editing, etc. The course will place emphasis on use of video technology as a creative communication tool. Students will study and work with video equipment, computer-based editing, audio for video productions, and lighting. (Prerequisites: None). (3 C).

MCOM 1245   Writing for Mass Media
This course will introduce students to writing copy for a range of mass media including print and broadcast journalism, public relations, advertising, social media and web publications. Students will learn to gather information and become proficient in conventions and style for publishing/broadcasting for each medium. (Prerequisites: College level reading and writing). (3 C).

MCOM 2165   Special Topics in Mass Communication
This course focuses on a specific topic chosen by the instructor who teaches the class. This course offers in-depth exploration of a special topic, issue or trend in the mass communication field. Topics might include current events (such as a political campaigns class during an election year), a specific film genre, specialized film/television projects, and more in-depth analyses of industry trends. Course may be repeated up to 9 credits if the focuses of the subsequent classes are different. (Prequisites: None). (3 C).

MCOM 2210   Public Relations
This course is a concentrated study of audience and objective analysis, planning a campaign, writing print and broadcast releases and the effective use of mass media to communicate. History and philosophy of public relations is covered as well as publicity for business and non-profit community organizations. (Prerequisites: None). (3 C/3 lect, 0 lab).

MCOM 2220   Radio Production
This course will enable the student to continue practicing the audio production skills covered in MUSC 1621, while focusing them and new knowledge and skills toward the field of radio broadcasting. The course will place emphasis on the use of audio technology as a communicative and creative tool. Students will work with audio recording, editing, and mixing equipment, including computer-based audio hardware and software. Material produced by students may be broadcast on local media and/or online. Recommended entry skills/knowledge: College level reading and writing. Prerequisites: MUSC 1621 or consent of instructor. (3 C).

MCOM 2240   Television Production
This course is a continuation of MCOM 1190. The content of this course is at an advanced level for digital video production. Higher quality cameras and non-linear editing software will be used to create professional video productions ready to be distributed through various media. Students will continue to develop writing and scripting skills, audio/video acquisition skills and advanced editing skills for video based media production. Students will also continue to enhance their critique and evaluation skills for the field of video production. Students will also be instructed in multi-camera production and editing. Throughout the course there will be an emphasis on the use of the video technology as a communicative and creative tool. (Prerequisites: MCOM 1190 or consent of instructor. (3 C).

MCOM 2261   Publications Laboratory II (Newspaper)
This course involves participation in college newspaper activities. Staff assignments will be given to students based on individual needs and abilities. (Prerequisites: None). (1 C).

MCOM 2290   Mass Communications Law/Ethics
This course covers origins and background principles of Mass Communications Law. Case law, statues, agency regulations that comprise precedents for laws that govern media professionals is included as well as social and ethical professional issues calling

for critical judgment. (Prerequisites: College-level reading and writing). (3 C/3 lect, 0 lab).

MCOM 2294   Mass Communications Internship
On-the-job experience in mass communications. (Prerequisites: Sophomore standing and permission of instructor/department). (4 C).

MUSIC

MUSC 1001   Music Fundamentals
This course is an introductory course focusing on listening to music and the reading of music. Basic elements of sound will be covered and will include: Rhythm, Melody, Pitch, Form, Harmony, Timbre, Expression, Tempo, and Dynamics. The course will include a basic approach to sound as art, physics, and the philosophy of listening. The course is intended for the general student and can be used as a prerequisite into music theory. (Prerequisite: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1002   Music, Video, Lights
This course is an introductory exposure to the creative process using multiple medias of music, video, and lights. Basic sound/video editing skills and creative design will be explored and coupled with creating synchronized compositions. Basic theatre lighting concept design and control will then be combined to create synchronized multi-¿media composition presentations. The thematic creations are open to any style including club, techno, hip-hop, classic, etc. Students will have access to labs and presentations spaces to create and perform their creations. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/the Humanities and the Fine Arts

MUSC 1101   Music Appreciation
This course will address the affective domain of music listening. The main venue will be art music. However, music of many differing genres will be included. Historical information will be included, but the major focus will be toward the student gaining insights into the positive nature of music, its impact on the life of the individual, and society. (Prerequisite: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1201   History of Music to 1600
This course is designed to further the students understanding of the music they hear through studies of composers and types of compositions within a historical context. Emphasis will be on Medieval and Renaissance Eras. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1202   History of Music Since 1600
This course is designed to further understanding of music they hear through studies of composers and types of compositions within a historical context. Emphasis will be on Baroque, Classical, Romantic and Twentieth Century Eras. (Prerequisites: None). (3 C).

MUSC 1221   Popular Music in the United States
This course is a survey of American Popular Music from 1840 to the present. The music styles studied include Blues, Gospel, Folk, Bluegrass, Country, Ragtime, Jazz, Latin Music, Musical Theater, Rock and Contemporary Popular Music. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1231   Introduction to World Music
A comparative study of music and its function within cultures of non-Western countries and various American folk traditions from a listener¿s point of view. Cultures surveyed come from India, Indonesia, China, Japan, Africa, Central/Eastern Europe and the Americas. No previous musical experience required. (Prerequisites: college level reading and writing skills). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

MUSC 1301   Concert Choir
Rehearsal of choral literature, the study of tone building, balance, interpretation and other factors which embody principles of good choral training. Public concerts will be given by the group and by smaller ensembles selected from the personnel of the choir. (Prerequisites: None). (1 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1302   Concert Band
Standard literature for band studied for sight reading, development of tone and technique. Public appearances by the group and by small ensemble groups formed from various sections of the band. (Prerequisites: None). (1 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1321   Aires
Variety of choral and performance style is the predominant feature of the ensemble including vocal jazz, show, choral and chamber. Extensive work with choreography and public performance make this ensemble "performance intensive". Music

expression, stage presence, audience dynamics and singing technique are stressed. (Prerequisites: None). (1 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1322   Jazz Band
This course includes rehearsal and performance of Jazz ensemble music. Musical expression, nuance, style and performance technique are stressed. Performance and audience dynamics as part of the human and humane nature of music are gathered through many varied public performances. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: Reading, writing and/or mathematics proficiency. High School Concert and/or Jazz Band experience equivalency. (Prerequisites: None). (1 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1331   Vocal Ensemble
Rehearsal and performance of ensemble music of different periods and styles. (Prerequisites; None). (1 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1332   Instrumental Ensemble
Students are asked to demonstrate an understanding of music's role in society present and past. Philosophies are expected to include global, inclusive and personality specific dimensions. (Prerequisites: None). (2 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1340   World Drum Ensemble
This ensemble presents an opportunity for students to participate in World Drumming through the practice and performance of World Beat Music from various cultures. Styles studied by the group include: Samba Batucada, Samba Pagode, Maracatu, Ijexa, Forro, and others from Brazil; Rumba, Mambo, Bolero, Cha cha, Guiro, Comparsa, Bembe (Cuba) Bomba, and Plena from the Caribbean; as well as Bell Processionals, and Hand Drumming from West Africa. Students will practice these styles in twice weekly rehearsals. Performances will include a major concert each semester. The main objectives in this ensemble are (1) to develop each students rhythmic potential and awareness through the study of World Beat Music; (2) to focus on the mastery of individual parts and the orchestrations created by combining these parts; (3) to develop fundamental percussion techniques and skills needed to perform music based on these various styles; and (4) to foster a greater appreciation for and understanding of World Beat Music and its influence on other music. (Prerequisites: None) (1 C). Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

MUSC 1350   Marching Percussion Ensemble
This course is intended to provide experience in contemporary performance and marching percussion techniques and is open by audition. Contemporary snare, quint, and orchestra techniques will be covered. The ensemble will perform in various concerts, functions, and parades. (Prerequisites: None). (1 C).

MUSC 1401   Beginning Class Piano
Basic knowledge of piano technique will include note reading in both Treble and Bass clefs, with emphasis on rhythmic reading; playing and transposing simple pieces in the keys of CFGDAE; and harmonizing with tonic and dominant 7th chords. (Prerequisites: None). (2 C). MNTC: Goal 2/CT, Goal 6/HA.

MUSC 1402   Intermediate Class Piano
Basic knowledge of piano technique will continue with expanded note and rhythm reading; playing and harmonizing in the keys of D-Flat, A-Flat, E-Flat, B-Flat, B, and F#; transposing and harmonizing activities are continued; easy classical pieces are explored; chord progressions, triads and inversions, and arpeggios are presented. (Prerequisites: MUSC 1401 or consent of instructor). (2 C).

MUSC 1421   Beginning Class Voice
Group instruction in the fundamentals of correct vocal production, breathing, breath management, posture, vocal health, and stage presence. This class should be of special interest to students who are planning to teach music classes at any level as it will give them the opportunity for greater understanding and development of their voices and how to teach others these concepts. (Prerequisites: None). (2 C). MNTC: Goal 2/Critical Thinking, Goal 6/the Humanities - the Arts, Literature, and Philosophy.

MUSC 1422   Intermediate Class Voice
Intermediate and advanced group instruction in vocal performance skills, methods, and techniques. This class should be of special interest to students who are planning to teach music classes at any level as it will give them the opportunity for greater understanding and development of their voices and how to teach others these concepts. It is also a valuable course for students interested in solo, theatrical, and vocal ensemble performance. (Prerequisites: MUSC 1421 or consent of instructor). (2 C). MnTC: Goal 2/Critical Thinking, Goal 6/the Humanities - the Arts, Literature and Philosophy.

MUSC 1431   Beginning Class Guitar
Basic knowledge of guitar technique including: tuning the guitar, chords and chord strumming (open chords), performing songs, fret board logic (how the fret board is layed out), exercises, scales, and melodic improvisation, music notation reading (music

literacy), barre chords, guitar maintenance. (Prerequisites: None). (2 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1450   Applied Music - Vocal
Individualized voice lessons cover from basic to advanced vocal technique and performance practices for all voice ranges from qualified instructors. (Prerequisites: Audition or consent of instructor). (1 C). MnTC: Goal 2/Critical Thinking, Goal 6/the Humanities - the Arts, Literature and Philosophy.

MUSC 1460   Applied Music - Instrumental
Individualized instruction on all major instruments from qualified music instructors. Students of all ability levels are welcome. Will cover basics to advanced technique and performance practice. (Prerequisites: None). (1 C).

MUSC 1501   Musicianship I
Music 1501 is designed for liberal arts and science students. The course begins with a review of the fundamentals of music including music notation, scales and key signatures, interval theory, melody, harmony, and part writing. Sight Singing and Ear Training are included in the course. Musicianship I is open to all and it is the first course in a four-semester sequence of music theory offerings. Use of the Internet and RCTC computer labs required. (Prerequisite: None). (4 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1502   Musicianship II
This course is the second class in a four-semester sequence required for all music majors and minors. The course begins with a review of basic harmonic vocabulary and part writing, followed by the study of six-four chords, inversions of triads, non-harmonic tones, seventh chords and diatonic modulation. Sight Singing and Ear Training are included in the course. (Prerequisites: MUSC 1501; College level reading, writing and mathematics proficiency; and ability to read music required). (4 C).

MUSC 1601   Electronic Music Composition I
This course is a "hands-on" introduction to the world of contemporary electronic music. Students will investigate the relationship between computer, software, electronic instruments, and original music creation. The student will investigate basic MIDI concepts, music creation applications, basic audio recording concepts, and the planning process for original music creation. The student will be presented with and practice the use of numerous software and hardware packages in the multi-station electronic music lab and will then be given individual studio time in one of the MIDI studios for original music compositions. (Prerequisites: None). (3 C/6 lecture studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 1602   Electronic Music Composition II
This course is the second of a two part "hands-on" introduction to the world of contemporary electronic music. The relationship between computer, software, and electronic instruments will be investigated by the student. This course will continue with use of concept investigated in the first course. Additional areas will include: writing music and data CDs; creation of sound and music for video productions, basic Quicktime video editing and production. The student will be presented and practice the use of numerous software and hardware packages in the multi-station electronic music lab. The student will then be given studio lab time in production studio A where the student will create music and audio/video projects. (Prerequisites: MUSC 1601). (2 C/4 lecture studio, 0 lab).

MUSC 1621   Audio Production I
This course is the first of a two part "hands-on" introduction to the world of contemporary music recording technology. This course is a core-curriculum course for the "Digital Arts" program as well as for potential transfer students wishing to attain a Bachelor of Music-Recording Engineering degree. The student will learn basic terminology and practice of contemporary recording theory and practice. The student will be given individual lab time for production practice in Studio A or B. (Prerequisites: None). (3 C/6 lecture studio, 0 lab).

MUSC 1622   Audio Production II
This is a continued course, which will familiarize students with the fundamentals of recording studio sound engineering. This course will emphasize the understanding of sound and acoustics; microphone design, construction and placement; and equalization and its application and its aesthetic treatment. This course will include some hands-on experience in the recording studios on campus and final preparation for potential internship in an area recording studio. (Prerequisites: Successful completion of MUSC 1621). (3 C/6 lecture studio, 0 lab).

MUSC 1623   Concert Recording and Sound Reinforcement
This course will focus on stereo and extended recording techniques for concerts and sessions involving voices or ensembles. Sound reinforcement (providing sound systems for live performances) will also be studied. Principles will be presented through readings, recordings, lectures, and through hands-on sessions that will provide opportunities for skills acquisition. (Prerequisites: None). (2 C).

MUSC 2291   Music: Specially Designed Independent Study

Directed study in consultation with instructor.

MUSC 2450   Vocal Performance Workshop
This course is designed to provide opportunities for the study and performance of challenging vocal literature. Students will study and prepare music from operas, operettas, and music theatre focusing primarily on the performance of small ensembles and choruses. (Prerequisites: Previous local training, Class Voice intermediate, applied voice, or consent of instructor). (1 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

MUSC 2501   Musicianship III
This course is the third class in a four-semester sequence required for all music majors and minors. The course begins with a review of diatonic chord progressions and modulation, followed by Chromatic Harmony including secondary dominant and leading tone chords, Neapolitan-sixth chords, Augmented-sixth chords, Chromatic modulation techniques, Binary and Ternary form, Theme and Variation technique, Sonata form, Rondo form, instrumental transposition. Sight Singing and Ear Training are included in the course. (Prerequisites: MUSC 1501, 1502). (4 C).

MUSC 2502   Musicianship IV
This course is the fourth class in a four-semester sequence required for all music majors and minors. The course continues from MUSC 2501. Topics covered will include: Extended and chromatic harmony including enharmonic and chromatic modulation, Mediant relationships, music based on modes; Twentieth century styles including: Impressionism, Atonality, Serialism, and Minimalism, and Jazz theory; continued study of musical structures and counterpoint. Sight Singing and Ear Training are included in the course. Use of the Internet and RCTC computer labs. (Prerequisites: MUSC 1501, 1502, 2501). (4 C).

NURSING ASSISTANT

NA 1500   Nursing Assistant Theory and Clinical
This course introduces the concepts of basic needs and basic nursing skills in the long term care environment. Skills are taught in a simulated laboratory setting utilizing demonstration of skills and guided practice. Performance mastery of skills is emphasized. The student must successfully complete the theory portion of this class to participate in the clinical component. This course meets the Federal OBRA law and Minnesota Department of Health requirements for educating the Nursing Assistant. Upon completion of this class, the student will be eligible to complete the State Nursing Assistant Registry. This course is a Technology, Practical Nursing, and Associate Degree Nursing. (Prerequisites: Qualified for college level reading or concurrent enrollment in READ 0900). (3 C/1 lect, 2 lab).

NA 1501   Home Health Aide Theory
This 16-hour course is designed to be consistent with state guidelines for home-health aide/homemaker curriculum. It includes home care services, goals, and responsibilities for client's well being across the life span. Topics of nutrition, safety, basic care personal needs, confidentiality, reporting and recording practices, and home care needs for special populations are presented and discussed. (Prerequisites: NA 1500 or equivalent. May be taken concurrently with NA 1500 with advisor signature). (1 C/1 lect, 0 lab).

NA 1602   Hospital Nursing Assistant
This course will give the student who has completed a 80-hour Nursing Assistant program the knowledge and skills necessary for employment in a hospital or other acute care setting. The student will be provided with classroom and laboratory experience which will aid in preparation to care for the acutely or chronically ill patient. Actual experience in the hospital setting will be provided during clinical. (Prerequisites: NA 1500 or equivalent, completion of or concurrent enrollment in BTEC 1610, ENGL 1117, PSYC 1611). (2 C).

NA 1610   Nursing Assistant for Surgical Technology
This course will provide the Surgical Technologist with theory and lab experience necessary to work in a health care facility. The course will provide students the necessary skills to work with the elderly, the chronically ill, or acutely ill individual. Following successful completion of the theory and lab components, students will have a clinical experience in long-term care and in the hospital setting. (Prerequisites: Appropriate score on RCTC placement test or completion of appropriate develoment course (READ 0800) with a grade of C or better. CPR or concurrent enrollment in CPR).

NA 2291   Nursing Assistant for Surgical Technology Acute Care Setting
This independent study allows students who have successfully completed a long-term care nursing assistant course to expand and adapt skills to practice in an acute care setting with specific emphasis on the surgical patient. (1 C).

NETWORKING SPECIALIST

NETW 1040   Networking Concepts

This course provides an introduction to computer networks, with emphasis on Local Area Networks. It provides information that would be useful to the user of a network and an introduction to network installation and administration. In the laboratory the student will be provided with some experience in LAN installation and more extensive experience using a LAN. (Prerequisites: None). (3 C/1 lect, 4 lab, 0 OJT).

NETW 1060   Cisco Networking Academics I

This course will instruct students how to: identify and describe the functions of each of the seven layers of the OSI reference model; describe data link and network addresses and identify key differences between them; define and describe the function of a MAC address; list the key internetworking functions of the OSI Network layer; identify at least three reasons why the industry uses a layered model; describe the two parts of network addressing, then identify the parts in specific protocol address examples; identify the functions of each layer of the ISO/OSI reference model; define and explain the five conversion steps of data encapsulation; describe the different classes of IP addresses [and subnetting]; and identify the functions of the TCP/IP network-layer protocols. (Prerequisites: none) (3 C/4 hours per week).

NETW 1065   Cisco Networking Academics II

This course will instruct students how to: examine router elements (RAM, ROM, CDP, show); describe connection-oriented network service and connectionless network service, and identify their key differences; define flow control and describe the three basic methods used in networking; identify the functions of the TCP/IP transport-layer protocols; manage configuration files from the privileged exec mode; identify the functions performed by ICMP; control router passwords, identification, and banner; identify the main Cisco IOS software commands for router startup; check an initial configuration using the setup command; log in to a router in both user and privileged modes. Use the context-sensitive help facility; use the command history and editing features; list the commands to load Cisco IOS software from: flash memory, a TFTP server, or ROM; prepare to backup, upgrade, and load a backup Cisco IOS software image; identify the parts in specific protocol address examples; list problems that each routing type encounters when dealing with topology changes, and describe techniques to reduce the number of these problem; configure IP addresses; verify IP addresses; prepare the initial configuration of your router and enable IP; add the RIP routing protocol to your configuration; add the IGRP routing protocol to your configuration; configure standard access lists to figure IP traffic; monitor and verify selected access list operations on the router; configure extended access lists to filter IP traffic; and monitor and verify selected access list operations on the router. (Prerequisites: NETW 1060) (3 C/4 hours per week).

NETW 1070   Cisco Networking III

This course will instruct students how to: list the required IPX address and encapsulation type; configure IPX access lists and SAP filters to control basic Novell traffic; enable the Novell IPX protocol and configure interfaces; monitor Novell IPX operation on the router; describe the advantages of LAN segmentation; describe LAN segmentation using bridges; describe LAN segmentation using routers; describe LAN segmentation using switches; name and describe two switching methods; describe full- and half-duplex Ethernet operation; describe network congestion problem in Ethernet networks; describe the benefits of network segmentation with bridges; describe the benefits of network segmentation with routers; describe the benefits of network segmentation with switches; describe the features and benefits of Fast Ethernet; describe the guidelines and distance limitations of Fast Ethernet; distinguish between cut-through and store-and-forward LAN switching; describe the operation of the Spanning Tree Protocol and its benefits; and describe the benefits of virtual LANs. (Prerequisites: NETW 1060, NETW 1065) (3 C/4 hours per week).

NETW 1075   Cisco Networking IV

This course will instruct students how to: differentiate between the following WAN services: LAPB, Frame Relay, ISDN/LAPD, HDLC, PPP, and DDR; decognize key Frame Relay terms and features; list commands to configure Frame Relay LMIs, maps, and subinterfaces; list commands to monitor Frame Relay operation in the router; identify PPP operations to encapsulate WAN data on Cisco routers; state a relevant use and context for ISDN networking; identify ISDN protocols, function groups, reference points, and channels; describe Cisco's implementation of ISDN BRI. Upon completion, student is prepared to take CCNA exam. (Prerequisites: NETW 1060, NETW 1065, NETW 1070) (3 C/4 hours per week).

NURSING

NURS 1117   Fundamentals of Nursing

This course is designed to provide an overview of the nursing profession and the role of the registered nurse as a provider and manager of care. Maslow's hierarchy of basic human needs, Watson's Philosophy of Caring, and Benner's Novice to Expert Theory are introduced along with the nursing process. Nursing care of patients with musculoskeletal alterations and care of the elderly is discussed. Operative stages of nursing care are discussed.(Prerequisites: Admission into the nursing program and follow the ADN program sequence. (6 C/3 hrs classroom, 7.5 hours lab).

NURS 1118   Adult Nursing I

This course focuses on the nursing care of adults with alterations in the following systems: cardiac, vascular, hematology,

respiratory integumentary, immune. The course also discusses nursing care for adults with cancer, diabetes mellitus and the promotion of wellness. The students have the opportunity to apply classroom learning during lab and clinical. (Prerequisites: Satisfactory completion of Semester I requirements as identified in the ADN program sequence). (6 C/3 hours classroom, 9 hours lab).

NURS 1130   Basic ADN Nursing Skills Review

This elective course will assess and develop the student's current level in performing basic nursing skills essential for professional nursing practice. The course builds on the Nursing 1117 or Nursing 1120 students' knowledge and experience and allows the student to further develop previously learned skills. The assignments and lab interactions will facilitate the student in review of theoretical principles with application to skills and demonstration of skill proficiency. This course is designed to increase confidence and proficiency in nursing skill techniques. (Prerequisites: Completion of NURS 1117 or NURS 1120). (2 C/1 lect, 1 lab).

NURS 2207   Maternal Newborn Nursing

This course is designed to assist students in developing a comprehensive knowledge of the nursing care related to reproductive health in childbearing families. The course reflects the concept that childbearing is a normal event which affects each family and its individual members in a unique way. Concepts such as health promotion, caring and prioritization are emphasized. (Prerequisites: Satisfactory completion of Semester II requirements as identified in the ADN program sequence). (3 C/1.6 credit classroom/1.4 credit lab. Course delivered in 1/2 semester).

NURS 2208   Mental Health Nursing

This course is designed to assist students in developing a comprehensive knowledge of the nursing care of the psychiatric-mental health patient. Students will focus on increasing awareness of the continuum of human behavior and utilization of therapeutic communication. Emphasis is placed on patient education, caring behaviors and prioritization of needs. (Prerequisites: Satisfactory completion of Semester II requirements as identified in the ADN program sequence). (3 C/1.6 credit classroom/1.4 credit lab. Course delivered in 1/2 semester).

NURS 2209   Pediatric Nursing

This course is designed to help the student develop a comprehensive knowledge of the growth and development of all children. Pediatrics includes care of the well child and children with disabilities with emphasis on assessing the effects of illness and/or hospitalization on growth and development of the child and family. The concept throughout this course is that child and family health or disability relates to growth and development from infancy through adolescence. The course prepares the student to provide care to children with both acute and chronic illness, communicable diseases, and congenital birth defects. Clinical experience is designed for application of theory to patient care. (Prerequisites: Satisfactory completion of semester III requirements as identified in the ADN program sequence). (3 C/ 1.6 credit classroom, 1.4 credit lab. Course delivered in ¿ semester).

NURS 2217   Adult Nursing II

This course is a medical-surgical nursing course designed to provide an overview of gerontological nursing, including RN roles in acute, long term, and community based settings. Standards of nursing care are defined for adults with chronic and terminal illness as well as health problems related to gastro-intestinal, biliary, hepatic, neurological,renal and reproductive systems. (Prerequisites: Satisfactory completion of semester II requirements as identified in the ADN program sequence. Previous or concurrent registration in SOC 1614. Concurrent registration in NURS 2207 and NURS 2208. CPR*) A grade of C is required. (5 C/2 hours lect, 9 hours lab).

NURS 2218   Advanced Concepts in Nursing

This course provides an overview of the nursing care for critically ill patients. Principles of nursing management of patients with endocrine disorders, multisystem organ dysfunction, and common emergencies including trauma and burns are examined. Organ donation/transplant issues and nursing implications are discussed. Ethical considerations and priority nursing interventions discussed. Each student has one acute care clinical laboratory period a week. Students will have an opportunity to observe in a critical care and/or emergency care setting to correlate RN roles and health team collaboration in meeting priority patient health needs). (Prerequisites: Successful completion of Semester III requirements as identified in the ADN program course sequence). (3 C/3.5 hours classroom theory each week and 8.5 hours clinical practice).

NURS 2219   Leadership and Management in Nursing

This course is a study of nursing leadership and management. Students learn to assign, supervise, and evaluate nursing care for a group of patients by leading a group of nursing peers. Students provide comprehensive care to multiple patients including discharge planning to assist in the role transition to a beginning staff nurse. Course content also includes current trends in health care delivery systems and the implications for nursing. The student will have outside observation experiences. (Prerequisites: Satisfactory completion of Semester III requirements as identified in the ADN program sequence). (4 C/ hours lect, 18 hours lab).

NURS 2220   Professional Practice Issues

This course is designed to assist the student make an effective role transition from the nursing student to the graduate nurse. Students formulate a beginning personal philosophy of nursing that will guide their nursing practice and provide direction in setting

career goals. A career planning unit introduces students to the employment seeking process in nursing. Additional course content includes defining nursing roles and responsibilities, levels of educational preparation, and legal and ethical issues pertaining to the discipline of nursing. (Prerequisites: Satisfactory completion of Semester III requirements as identified in the ADN program sequence). (1 C/2 hours lect: ¿ semester).

NURS 2400   Transcultural Nursing: Community and Global Connections

Nursing 2400 is designed to provide nursing students the opportunity to work with culturally diverse individuals/groups either locally or globally. Students will choose either Option A: local clinical experience or Option B: travel abroad clinical experience. Students will choose a clinical practicum (Option A or Option B) where they will observe care to individuals/groups from diverse cultures. The nurse¿s role and responsibilities to marginalized groups will be explored. The student will move beyond cultural sensitivity and awareness to the development of providing culturally competent care. (Prerequisites: Currently registered in the ADN program. Nursing graduates will be considered as space allows. Current CPR certification). (2 C).

NUTRITION

NUTR 1211   Principles of Nutrition

This course covers the composition of, the sources of, and the human requirements of carbohydrates, lipids, proteins, vitamins and minerals in the diet throughout the life-cycle. Metabolism of nutrients, energy balance and fluid and electrolyte balance will also be discussed. (Prerequisites: BIOL 1217 or BIOL 1220, one college chemistry course above CHEM 1101). (3 C).

OCCUPATIONAL SKILLS

OSP 1000   Introduction to the Occupational Skills Program

This course details the role and responsibilities of the Occupational Skills student in the RCTC college setting. Appropriate behaviors, self-control, social awareness, boundary issues, relationships, group process and navigating the RCTC website and D2L will be covered. (Prerequisites: Acceptance into the Occupational Skills Program is required). (3 C/3 lect, 0 lab).

OSP 1005   Daily Living Skills

This course covers skills that students need to live independently within the community. The course topics include the maintenance skills (i.e. cooking, laundry, cleaning, time management, personal safety and personal health care. (Prerequisites: Acceptance into the Occupational Skills program is required). (3 C/3 lect, 0 lab).

OSP 1010   Work Readiness Assessment

This course provides students the opportunity to explore occupational options. Students will identify their occupational strengths and weaknesses. They will also set, monitor and change goals, as necessary. Students will plan their program of study which will be expanded upon in the Supervised Occupational Training course. (Prequisites: Acceptance into the Occupational Skills program). (1 C/1 lect, 0 lab).

OSP 1015   Applied Communication Skills

This course provides students with a variety of communication skills needed to be successful in a work setting. Topics include speaking, listening, telephone etiquette, e-mail etiquette, conveying feelings, understanding body language, interacting with others, boundaries and relationships. (Prerequisites: Acceptance into the Occupational Skills program). (3 C/3 lect, 0 lab).

OSP 1025   Personal Development

Students will develop and display decision making skills and problem solving skills, as well as learning skills of becoming an effective self-advocate. Examples include: hearing about legislation with persons with disabilities, how to describe their disability to others, strategies for assertively stating their wants and needs to others. (Prerequisites: Acceptance into the Occupational Skills program). (3 C/3 lect, 0 lab).

OSP 1030   Supervised Occupational Training

During the lecture portion of this course, students will explore the importance of work and the employer's expectations of the employee. Students will be exposed to basic job skills necessary to obtain and maintain entry level employment. This course provides students the opportunity to perform skills at a specific job site. Successful students will complete 96 hours of occupational training at a specific job site. (Prerequisite: Acceptance in the Occupational Skills Program and instructor approval). (4 C/2 lect, 2 lab).

OSP 1040   Community and Leisure Resources

This course provides information regarding community and leisure resources that will assist students in living and working independently. Students will learn transferable skills that will allow them to access these resources. (Prerequisites: Acceptance into the Occupational Skills Program). (1 C/1 lect).

OSP 1045   Applied Job Search

Students will gather relevant information necessary to prepare a resume, write a cover letter and follow up interview letter. They will utilize various resources to find job openings. Students will also complete job applications to secure employment. They will prepare and participate in a mock interview. Job change situations will also be addressed. Students will use the information gained through the Work Readiness Assessment course to determine an employment goal. (Prerequisite: Acceptance into the Occupational Skills Program). (2 C/2 lect).

OSP 1050   Transition to Independent Living

This course provides students with the ability to identify and meet personal needs as they make the transition from school to work and independent living. (Prerequisite: Acceptance into the Occupational Skills Program). (3 C/3 lect).

OSP 1055   Internship

The lecture portion of this course will focus on writing and tracking short and long term goals. Students will self-assess their occupational goals and adjust their goals, as needed. Students will have the opportunity to review work strengths and needs and an individual plan will be put into place for each student for continued improvement. They will also have the opportunity to meet with their support team and instructor to discuss work options once the Occupational Skills Program has been completed. Students will have the opportunity to apply knowledge and skills learned in the classroom and/or supervised occupational training sites during the previous semester. Experiences will be provided through internship that increase opportunities to practice occupational skills in their chosen area. Successful students will complete 160 hours of internship training at a specific job site. (Prerequisites: Acceptance into the Occupational Skills Program). (7 C/2 lect, 5 lab).

PARA EDUCATION

PARE 1010   ParaEducation Practicum I

In this course, students will have the opportunity to apply their knowledge and skills in a school setting as a Para educator under the direct supervision of a licensed teacher. Students will implement a variety of learning experiences and demonstrate practices that are developmentally appropriate and culturally sensitive to meet the individual needs of children from birth through age 20 years. Children may include those with special needs. (Prerequisites: PARE 1000). (2 C).

PARE 1030   ParaEducation Practicum II

In this course, students will have a second opportunity to apply their knowledge and skills in a school setting as a para educator under the direct supervision of a licensed teacher. Students will implement a variety of learning experiences and demonstrate practices that are developmentally appropriate and culturally sensitive to meet the individual needs of children from birth through age 20 years. Children may include those with special needs. Practicum II must be completed with a different age group of children and/or different education site from the Practicum I experience. (Prerequisites: PARE 1000 and PARE 1010 or instructor's consent). (2 C).

PHYSICAL EDUCATION

PHED 1100   Badminton

The course is designed to acquaint students with the game of badminton. Studies will be made of the proper techniques used in playing the game of badminton, i.e., serves, drives, clears, smashes, drops. Emphasis will be placed on singles and doubles game strategies. The course will also include game and a variety of play. (Prerequisites: None). (1 C).

PHED 1101   Canoeing

This course in recreational canoeing allows students to experience both lake and river canoeing. Students will learn the fundamentals of canoeing; proper stroke technique, situation water reading, current equipment, water safety, and river rescue. (Prerequisites: None). (1 C).

PHED 1103   Social Dance

This course provides the opportunity to develop physical skills in the performance of a number of social/ballroom dances as well as an appreciation for the art and skill of social dance. The dances will include the fox-trot, waltz, lindy, cha-cha, and two-step, as well as several contemporary line dances. (Prerequisites: ENGL 0840). (1 C).

PHED 1105   Lifetime Fitness

Lifetime fitness provides contemporary information concerning the beneficial effects of a healthy lifestyle and how to implement and live such a lifestyle. It also includes laboratory inventories that help to assess an individuals current health lifestyle and provide guidelines for modifications and change. (Prerequisites: ENGL 0090, College level reading, and MATH 0098). (3 C/2 lect, 2 lab).

PHED 1106   Soccer

This course is intended to introduce the student to the basic and intermediate aspects of soccer. Through instruction, demonstration, practice and play the student will learn the skills, rules, and strategies involved in the game of soccer. It will also cover some of the basic aspects of conditioning, fitness and the benefits of exercise. Time will be spent working in groups and developing teamwork. (Prerequisites: ENGL 0840). (1 C).

PHED 1107   Cycling (Non-Motorized)

The student will learn the basic rules of operation of the bicycle, rules of the road, and how to properly care for equipment. It is expected that the student will realize the value of cycling in achieving physical fitness and will be encouraged to have a carry-over interest in cycling. (Prerequisites: ENGL 0990, College level reading). (1 C).

PHED 1110   Bowling

This course is intended to teach students how to bowl using the spot bowl system. Students will learn how to keep score and select appropriate equipment. (Prerequisites: MATH 0093 and READ 0840). (1 C).

PHED 1111   Archery

This course is designed to teach students the history of archery, terminology and skills useful for a lifetime activity. (Prerequisites: None). (1 C).

PHED 1112   Jogging/Walking

This course is designed to introduce the student to various aspects of jogging and walking activities. Topics to be covered include but are not limited to stretching, form, fitness principles, and proper equipment needed for jogging and fitness walking. The course will help students to develop lifelong fitness programs by developing and understanding aerobic principles, cardiovascular conditioning, nutrition and performance enhancement. (Prerequisites: ENGL 0990, ENGL 0840, and MATH 0093). (1 C).

PHED 1113   Social Dance II

This course provides the opportunity to develop a more advanced variety of step patterns, style and skill in the performance of a number of social/ballroom dances, as well as deeper appreciation for the art and skill of social dance. This course will review, enhance and develop to the next level, dances previously learned in PHED 1103 Social Dance: Foxtrot, Waltz, Two-Step, Swing, Polka, Cha-Cha, Mambo, and Rumba, as well as several contemporary line dances. New dance skills will be introduced as well, with Night Club Two Step offering a mid-range dance tempo alternative, Cumbia which is a step of Latin dance influence that can be performed at a range of tempos and the American Tango, which takes social dancing to a more complex level of synchronized and precision movements. (Prerequisites: PHED 1103; Co-requisite: Instructor permission).

PHED 1114   Softball

Physical education activity course offering instructions on skill development, playing strategy, scoring, and rules applicable to slow pitch softball. (Prerequisites: None). (1 C).

PHED 1115   Volleyball

This course is intended to introduce the student to all aspects of volleyball. Through instruction, practice and play the student will learn the skills, rules and strategies involved in the game of volleyball. It will also cover some of the basic aspects of conditioning, fitness and the benefits of exercise. Students will learn the importance of teamwork and working in groups. (Prerequisites: None). (1 C).

PHED 1117   Swimming

Physical education activity course designed to educate the beginning and intermediate swimmer with demonstrated knowledge of basic water safety and current rescue techniques. Instruction will be given in a variety of swimming strokes along with analysis and endurance swimming involving the various strokes. (Prerequisites: None). (1 C).

PHED 1122   Circuit Training

This course is designed to teach students techniques in weight training, in both free weights and machines, and cardiovascular endurance activities. The student will also be exposed to basic anatomy/physiology principles regarding warm-up, stretching and body musculature. (Prerequisites: ENGL 0090, 0840, and MATH 0093). (1 C).

PHED 1124   Tai Chi and Meditation

Tai Chi sometimes referred to as "Meditation in Motion," is a system of gentle and slow motion exercise for the mind/body connection. Tai Chi was originally developed by the Taoists about 600 years ago in China as a regimen for health and longevity. This course consists of three parts; Lectures, Tai Chi Form exercise, and Meditation. The lectures cover background knowledge about Tai Chi theories, history, philosophy and its health benefits. The students will learn a beginning level, simplified Tai Chi form. This course will also teach students several meditation techniques for stress management. (Prerequisites: None). (1 C).

PHED 1125   Yoga For Life

Yoga is a discipline associated with physical, emotional, and spiritual benefits. The focus of the class will be on Hatha Yoga, which

is that branch of Yoga that works primarily with the body through asanas or postures that are done seated, standing, and lying supine on the floor. Breathing exercises, relaxation in the postures, and meditation will also be highly emphasized. Yoga postures enhance flexibility, balance, and strength, while focusing on mind/body awareness. (Prerequisites: None). (1 C).

PHED 1126   Step Aerobics
An aerobic exercise class that uses a 4" - 10" step bench. Each class will include a warm-up, a step segment, muscle toning and a cool-down. (Prerequisites: ENGL 0990, 0840, and MATH 0093). (1 C).

PHED 1127   Body Toning
An exercise program designed to increase your muscle tone, strength and flexibility, using a variety of progressive resistance techniques like Dyna bands, hand weights, exercise bars and balls. (Prerequisites: ENGL 0990, College level reading, and MATH 0093). (1 C).

PHED 1130   Tennis
This course is designed to cover the basic fundamentals of tennis and to develop an appreciation for the game. It will also cover some of the basic aspects of fitness. (Prerequisites: None). (1 C).

PHED 1131   Golf
This course is designed to introduce the student to the grip, stance and swing used in golf. The class is divided between skill development, the rules of the game and course management during a round of golf. (Prerequisites: None). (1 C).

PHED 1132   Speed and Power Running
This course is designed to introduce the student to various aspects of sprinting and explosive running activities. Topics to be covered include stretching form, fitness principles and proper equipment needed for fast running and power fitness. (Prerequisites: None). (1 C).

PHED 1133   Strength Training for Men and Women
This course is designed to teach students techniques in weight training, in both free weights and machines, to assist students in becoming stronger. The student will also be exposed to basic anatomy/physiology principles regarding warm-up, stretching and body musculature. (Prerequisites: None). (1 C).

PHED 1138   Outdoor Winter Activities
This course is designed to introduce the student to a wide variety of winter activities, i.e. cross country skiing, downhill skiing, snow shoeing, ice skating, boot hockey, broom ball, ice fishing, and winter jogging. (Prerequisites: None). (1 C).

PHED 1141   Hiking/Orienteering
Orienteering is the use of map and compass. Hiking is a long walk. This class is designed to incorporate the use of map and compass and hiking as a leisure activity and an enjoyable means to physical fitness. (Prerequisites: ENGL 0090, College level reading, and MATH 0093). (1 C).

PHED 1143   Self-Defense
This course is designed to provide the student with a variety of practical skills necessary to escape a physical attack. Special tactics such as throws, kicks, falls, submission holds and counter moves are taught. Students are taught how to get away from potentially dangerous situations safely. (Prerequisites: ENGL 0840). (1 C).

PHED 1144   Introduction to Scuba
This course includes the basics of enjoyable safe diving taught through academic training, and confined and open water diving sessions. Successful completion of all of the elements of the course earns an PADI (Professional Association of Dive Instructors) Open Water certification. The course is divided into two parts, the academic and pool practice sessions, and the open water dives at an area lake. (Prerequisites: None). (1 C).

PHED 1145   Individual Leisure Sports
Individual Leisure Sports is designed for students to develop skills relating to sports that are more family, social or designed for recreational competition. These sports: table tennis, horseshoes, disc golf, badminton, pickleball and bocce ball are competitive, yet are activities that will provide opportunities for students to learn now, develop through practice and participation, yet continue to be involved with throughout their lifetime. (Prerequisites: College level reading). (1 C).

PHED 1146   Team Recreational Sports
Recreational Team Sports is designed for students to develop skills relating to sports that are more family, social or designed for recreational competition. These sports; team handball, floor hockey, ultimate Frisbee, soccer, flag football and kickball can be performed as family activities or in a competitive amateur setting. This course is designed to expose students to opportunities for learning through practice and participation, to develop team sport skills, continue to be active physically and enjoy the social aspects of team sports throughout their lifetime. (Prequisites: College level reading). (1 C).

PHED 1189   Boot Camp

This course is designed for Law Enforcement students who need additional assistance in performing to the physical standards set by their field. Students taking this course will have been directed to this structured physical training format to enable them to both reach their desired goal of passing the physical training portion of their skills, as well as to gain a comprehensive understanding of the complexities that diet, healthy lifestyle choices and continued daily physical training contribute toward maintaining optimal fitness levels throughout their career. Any RCTC student may enroll in this course with instructor permission. (Prerequisites: None). (1 C).

PHED 1190   Strength, Agility and Quickness Training for Football Athletes

This course is designed to teach football team players techniques in weight training in both free weights and machines, to assist students in becoming stronger and better conditioned football players. The student will also be exposed to basic anatomy/physiology principles regarding warm-up, stretching and body musculature related to the sport of football. (Prerequisite: Instructor permission). (1 C).

PHED 1191   Strength, Agility and Quickness for Volleyball and Soccer Athletes

This course is designed to train the soccer and volleyball athlete techniques in strength, agility, and speed to prepare for the upcoming sport season. The student will also be exposed to basic anatomy/physiology principles regarding warm up, stretching, overuse injury prevention, and body musculature. Proper biomechanics education will be provided for jumping, hitting, pivoting, and sprinting activities as they relate to their respective sports. (Prerequisities: Instructor permission). (1 C).

PHED 1192   Strength, Agility and Quickness Training for Basketball Athletes

This course is designed to guide basketball players in techniques of strength, speed, and agility to prepare themselves for their season. Areas addressed will be the principles regarding proper warm-up, stretching, strength training, cardiovascular endurance training and nutrition. Biomechanical breakdown, analysis and education will also be provided for all components of running, jumping and plyometric skills. (Prerequisites: None). (1 C).

PHED 1193   Strength, Agility and Quickness Training for Wrestling Athletes

This course is designed to guide the wrestling athlete through techniques in strength, endurance, speed, power and agility that will prepare the athlete for the upcoming season. The course is focused on sport specific principles and includes a detailed sport specific nutrition component. Students will become familiar with basic anatomy and muscle structures, and how the development of specific structures, through proper training and nutrition, can promote optimal performance throughout training and in competition. (Prerequisites: Instructor permission). (1 C).

PHED 1194   Strength, Agility and Quickness Training for Baseball and Softball Athletes

This course is designed to guide the pre-season baseball/softball athlete in techniques of strength, agility, and quickness that will prepare the athlete for the upcoming baseball/softball season. The student will also be exposed to basic anatomy/physiology principles regarding warm up, stretching and body musculature. Proper biomechanics education will be provided for overhead throwing, sport specific pitching mechanics, hitting, multi-directional movement, fielding, and base-running techniques. (Prerequisites: Instructor permission). (1 C).

PHED 1230   Freshman Baseball Team

All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

PHED 2180   Critical Analysis of Football

This course is designed for individuals or amateur players who would like a broader understanding of the game of football. It explores the foundations of the game including: The recruitment and drafting of players, complex strategies for offense and defense, game rules, team guidelines, coaching decisions, the role of officials, scoring techniques, the impact of player injuries and other related topics. (Prerequisites: None). (1 C).

PHED 2240   Methods of Group Fitness Instruction

Teaching group fitness requires an in-depth understanding of both the anatomy and physiology of the body and training principles to provide a safe, exciting and challenging workout for your clients. This course is designed to provide you with the actual physical components of teaching using cues and routines along with progressions designed to provide challenges in any group fitness setting. This course will supply both the foundation for understanding the body systems and how various training regimes benefit the body as a whole, and the hands-on incorporation of teaching techniques, utilizing music, choreography, cueing, safety awareness, and injury prevention for a wide variety of group fitness settings. Recommended Entry Skills/Knowledge: College Level Reading. Recommended completion of below listed choices to meet individual program requirements prior to taking Methods of Group Fitness Instruction: Lifetime Fitness, Body Toning, Step Aerobics, Tia Chi, Yoga, Circuit Training, Strength Training for Men and Women, Speed and Power Running. (Prerequisites: None). (3 C/2 lect, 2 lab).

PHED 2241   Essentials of Personal Training

This course explores the foundations of exercise science, safe and effective exercise techniques, program design and safety and

legal issues of providing personal training instruction to clients. This course takes an in-depth look into anatomy and physiology and who it relates to the body's adaptation to both anaerobic and aerobic training regimes. Evaluating individuals utilizing physical testing protocols and assessments and developing exercise prescriptions for clients based on their present levels of fitness and their goals is the primary focus, while understanding the intricate interrelationships of the body systems to achieve optimal results. Recommended Entry Skills/Knowledge: College Level Reading. Lifetime Fitness, Circuit Training, Strength Training for Men and Women, Speed and Power Running. (Prerequisites: None). (3 C/2 lect, 2 lab).

PHED 2242   Essentials of Strength and Conditioning

This course is designed for an in-depth individualized look at strength training and conditioning in a variety of settings. This information may be applied to the individual who seeks advanced techniques within a specific regime of training, or used in a team conditioning setting that would be adaptable to meet the specific requirements of that team's interest directed by the particular demands of the activity. Recommended Entry Skills/Knowledge: College Level Reading. PHED 1105, PHED 1122, PHED 1132, and PHED 1133. (Prerequisites: None). (3 C/2 lect, 2 lab).

PHED 2245   Group Fitness/Personal Trainer Certification Exam Prep

This course is designed as a review course for students wishing to complete a Group Fitness Instructor or Personal Trainer certification. Various industry standard entities(ACE, AFAA, ACSM, NSCA, NETA) offer similar certifications that cover the specifics of a variety of strength and conditioning activities such as; pilates, yoga, step aerobics, floor aerobics, aquatic exercise, indoor cycling, sport conditioning, functional training, kickboxing, exercise and bosa ball, various cardiovascular conditioning courses. These certification exams are intense and comprehensive. This course is a review of all concepts through the use of lecture and practical experience. College Level Reading, Recommended, but not required: PHED 1105, PHED 1108, PHED 1122 PHED 1124, PHED 1126, PHED 1127, PHED 1132, PHED 1133, PHED 2240, PHED 2242, PHED 2249, PHED 2250, and PHED 2253. (Prerequisites: None). (2 C).

PHED 2249   Prevention and Care of Athletic Injuries I

This course offers knowledge and practical experience in the field of athletic training taught under the guidance of a NATABOC certified athletic trainer. The NATA Competencies in Athletic Training serve as a guideline for knowledge that each student should obtain in this academic course. This course is designed to engage students in the process of reviewing, analyzing, discussing, synthesizing, and reflecting about athletic training. The course will also engage students and instruct them on the management and care of sports injuries by teaching them basic athletic taping and wrapping techniques. (Prerequisites: None). (3 C).

PHED 2250   Prevention and Care of Athletic Injuries II

This course will give you the knowledge and the practical experience to identify, treat, rehab, and prevent many common injuries that occur in athletic settings. (Prerequisites: PHED 2249 or instructor permission). (3 C).

PHED 2252   Sport Psychology

This course is designed to provide a better understanding of the variety of personalities, learning styles, scope of emotions and cognitive variables that athlete's face. Other aspects explored will include how individuals blend into a team setting, accept individualized sport instruction, incorporating motivation in practice and competition environments, as well as off the playing surface. Sport psychology applies to all aspects of the athlete's life, thus a deeper understanding is needed of the holistic picture of the athlete's approach to sport in their life, while balancing school, family, finances, time for relaxation, the temptation of substance use, personal anxiety when faced with adversity or injuries, and the skills to avoid burnout. Coaches also need to recognize these same issues as they relate to themselves and how to effectively cope with this demanding lifestyle. (Prerequisites: PSYC 1611 OR PSYC 2618 OR instructor's consent prior to registration and college level reading). (3 C).

PHED 2253   Sport Nutrition for Performance

Nutritional requirements for specific optimal performance can be general to some point, yet require individualization when taking into consideration the athlete and their performance goals. This course will explore nutritional strategies for both general performance and individualized dietary needs to match specific performance goals. Nutritional analysis and intake strategies will address individual needs relating to aerobic and anaerobic activity, and power and endurance aspects for optimal training, performance or competition, as they relate to specific sport applications. (Prerequisites: HLTH 1108; and College Level Reading). (3 C).

PHED 2260   Officiating Basketball

This course will offer an in depth understanding of the rule of the game of basketball, as well as actual lab time moving through the mechanics of two person on court officiating. The course will incorporate the use of and certification from the Minnesota State High School League basketball exam. Lab time arranged. (Prerequisites: None. Recommended Entry Skills/Knowledge: Instructor's permission; college level reading). (1 C).

PHED 2261   Officiating Principles

This course will provide a basic foundation for the professionalism required to become a sports official. Topics covered include the development of philosophy of the game, personal styles legalities and professional ethics. Other areas explored include the process for continuing education opportunities, networking, recognizing the need for, developing technique and the application of

conflict resolution while applying the rules of the game to provide fair competition and meaningful participation in events for student-athletes, coaches, spectators and officials. (Prerequisites: Physical Education major, Sport Management major, Recreation major or consent of instructor, and College Level Reading). (3 C).

PHED 2270   Introduction to Physical Education
The course is designed to introduce the student to professional fields of physical education. Study will include history, philosophy, objectives, career opportunities, scientific and scholarly disciplines, allied fields, future problems and prospects. (Prerequisites: ENGL 0990). (2 C).

PHED 2271   Principles of Coaching
This course will allow for the exploration of different coaching philosophies, the development of individual personal style while exploring caching responsibilities, ethical obligations, and how to balance personal time with coaching duties. Coaching requires the ability to appropriately interact with many individuals, ranging from athletes and parents to officials and professional peers; this course will explore appropriate interpersonal communications, as well as game management, proper analysis of statistics, how to recognize ergogenic aid usage by athletes and the application of proper collegiate recruiting processes. (Prerequisites: Physical Education major, Sport Management major, Coaching Diploma major, Recreation major or consent of instructor, and college level reading). (3 C).

PHED 2272   Techniques of Coaching Football
This course is designed to expose students to different approaches and strategies of coaching. It will teach prospective coaches the tactical skills to effectively break down complex sport movement into teachable basic fundamentals. Other areas that will be covered include how to effectively teach, evaluate and prepare athletes in all aspects of competition; how to plan and execute practices, as well as, season goals and plans and how to develop the prospective coach's own style and methods. (Prerequisites: PHED 2271, PHED 2261, and College Level Reading). (1 C).

PHED 2273   Techniques of Coaching Volleyball
This course is designed to expose students to different approaches and strategies of coaching. It will teach prospective coaches the tactical skills to effectively break down complex sport movement into teachable basic fundamentals. Other areas that will be covered include how to effectively teach, evaluate and prepare athletes in all aspects of competition; how to plan and execute practices, as well as, season goals and plans and how to develop the prospective coach's own style and methods. (Prerequisites: PHED 2261, PHED 2271, and college level reading). (1 C).

PHED 2274   Techniques of Coaching Basketball
This course is designed to expose students to different approaches and strategies of coaching. It will teach prospective coaches the tactical skills to effectively break down complex sport movement into teachable basic fundamentals. Other areas that will be covered include how to effectively teach, evaluate and prepare athletes in all aspects of competition; how to plan and execute practices, as well as, season goals and plans and how to develop the prospective coach's own style and methods. (Prerequisites: PHED 2261, 2271 and college level reading). (1 C).

PHED 2275   Techniques of Coaching Baseball
This course is designed to expose students to different approaches and strategies of coaching. It will teach prospective coaches the tactical skills to effectively break down complex sport movement into teachable basic fundamentals. Other areas that will be covered include how to effectively teach, evaluate and prepare athletes in all aspects of competition; how to plan and execute practices, as well as, season goals and plans and how to develop the prospective coach's own style and methods. (Prerequisites: PHED 2261, PHED 2271 and college level reading). (1 C).

PHED 2276   Techniques of Coaching Softball
This course is designed to expose students to different approaches and strategies of coaching. It will teach prospective coaches the tactical skills to effectively break down complex sport movement into teachable basic fundamentals. Other areas that will be covered include how to effectively teach, evaluate and prepare athletes in all aspects of competition; how to plan and execute practices, as well as, season goals and plans and how to develop the prospective coach's own style and methods. (Prerequisites: PHED 2261, PHED 2271, and college level reading). (1 C).

PHED 2277   Techniques of Coaching Soccer
This course is designed to expose students to different approaches and strategies of coaching. It will teach prospective coaches the tactical skills to effectively break down complex sport movement into teachable basic fundamentals. Other areas that will be covered include how to effectively teach, evaluate and prepare athletes in all aspects of competition; how to plan and execute practices, as well as, season goals and plans and how to develop the prospective coach's own style and methods. (Prerequisites: PHED 2261, PHED 2271, and college level reading). (1 C).

PHED 2278   Techniques of Coaching Wrestling
This course is designed to expose students to different approaches and strategies of coaching. It will teach prospective coaches the tactical skills to effectively break down complex sport movement into teachable basic fundamentals. Other areas that will be

covered include how to effectively teach, evaluate and prepare athletes in all aspects of competition; how to plan and execute practices, as well as, season goals and plans and how to develop the prospective coach's own style and methods. (Prerequisites: PHED 2261, PHED 2271, and college level reading). (1 C).

PHED 2280   Introduction to Sport Facility Management
This course is designed to teach leadership, administration and management of programs in fitness and sports facilities. They will learn how leadership and management are essential factors in the success of any facility and its programs. The student will tour our sports facility and see operations first hand. (Prerequisites: college level reading and writing). (3 C).

PHED 2281   Development and Management of Sport/Recreation Facilities
This course is designed to give the students a general overview of the guidelines that are involved in the development of new and/or renovating sports facilities. The course will start from the early planning stages and then progress through the necessary steps in the proper planning of new facilities. Each student will engage in classroom, out of classroom and text book studies and discussion about the strategies that need to be implemented prior to developing the facility plan. (Field trips arranged). (Prerequisites: PHED 2280). (3 C/3 lect, 0 lab).

PHED 2292   Group Fitness Instructor Internship
This course is comprised of approved on the job supervised work experience in the field of Group Fitness Instructor. Responsibilities and duties will be comprised of hands-on instruction of classes in a group fitness setting in relation to the individual's desired area. Duties to be determined through the direct supervisor of the internship and approved by the internship director. (Prerequisites: Group Fitness Instructor Diploma or Certificate majors: successful completion of 90% of program course work and registration based on Internship Director approval). (2 C).

PHED 2293   Personal Trainer/Group Fitness Instructor Field Experience
This course is designed to allow for students to complete a variety of field observations/job shadowing in the areas of the Personal Training & Group fitness Instruction. Field observations provide students insights and experience to gain knowledge from professionals within the field as to the workings of day-to-day operations. These fields possesses a high threshold for personal liability, and observations can provide students with a working experience of the daily requirements of this profession without exposing the student to the risk of stated liability that is present with hands-on involvement. (Prerequisites: Completion of course work pertaining to Personal Trainer/Group Fitness). (3 C).

PHED 2294   Physical Education Internship
On the job supervised work experience in the field of HPER/Sport Facility Management. (Prerequisites: Physical Education, Sports Facility Management majors, Recreation major or consent of instructor). (2-3 C).

PHED 2295   Sport Administration Internship I
This course is comprised of approved on the job supervised work experience in the field of Physical Education, Recreation, Coaching and Sport Management. Responsibilities and duties will be comprised of 75% within the administrative area of an approved position within the individual's desired area. Duties to be determined through the direct supervisor of the internship and approved by the internship director. (Prerequisites: Coaching Diploma, Physical Education, Recreation of Sport Management majors. Successful completion of 90% of program course work. Registration based on Internship Director approval). (3 C).

PHED 2296   Sport Administration Internship II
This course is comprised of approved on the job supervised work experience in the field of Physical Education, Coaching, Recreation and Sport Management. Responsibilities and duties will be comprised of 75% of internship duties to be direct coaching or officiating contact. Duties to be determined through the direct supervisor of the internship and approved by the internship director. Areas of involvement may include, but are not limited to direct supervision of athletes, planning all aspects of coaching responsibilities such as budgeting, transportation, fund raising, practice plans, game plans, game strategy. If the internship is officiating areas of involvement may include, but are not limited to, attending rule interpretation meetings, the regulation of athletic events, involvement in professional organizations, and networking with other professionals within the specific sport of choice. Either choice of involvement will also include problem solving and interpersonal relations with athletes, parents and peers while also developing professional relationships. (Prerequisites: Physical Education major, Sport Management majors, Coaching Diploma or Recreation major or consent of instructor. On the job supervised work experience in the field of Physical Education, Coaching, Recreation and Sport Management. Successful completion of 90% of program course work. Registration based on Internship Director approval. (3 C).

PHED 2297   Field Observation for Coaching
This course is designed to allow for students to complete a variety of field observations in the areas of the Coaching Certificate program. Field observations are for exposing students to these areas to gain knowledge from professionals within the field as to the workings of day-to-day operations. This field possesses a high threshold for personal liability, but observations can provide students with a working experience of the daily requirements of this profession without exposing the student to the risk of stated liability that is present with hands-on involvement. (Prerequisites: Coaching Certificate. Co-Requisites: Instructor permission). (1 C).

PHILOSOPHY

PHIL 1114   Introduction to Philosophy
This course is designed to introduce students to main fields of investigation of the problems of philosophy. Study will include principal methods and schools of philosophy and historical and contemporary views, with the goal of expanding students' knowledge of the human condition and human cultures, especially in relation to behavior, ideas, and values expressed in works of philosophy. (Prerequisites: None; Entry skills: college level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 9/Ethnic and Civic Responsibility.

PHIL 1125   Ethics
Examination of problems that arise when human beings attempt to think systematically about conduct and values. The course will include a survey of historical views about the right and the good. (Prerequisites: College level reading and writing, as determined by ASAP will be required). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 9/Ethnic and Civic Responsibility.

PHIL 1130   Environmental Ethics
This course provides background ethical theories, principles and concepts necessary to grasp the ethical issues of environment, sustainability, globalization and scarcity. Specific attention will be given to personal responsibility and the interconnectedness of human activity and the natural world. A special emphasis will be placed on critical reasoning and justification. Special topics that may be discussed include: nature and environment, conservation and preservation, the socio-economic justice, responsibility for future generations, consumption, eco-feminism, eco-racism, eco-terrorism, over population and animal rights. (Prerequisites: college level reading and writing, as determined by appropriate score on RCTC placement test or passage of ENGL 1117). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 10/People and the Environment.

PHIL 1135   Bioethics
This course provides background ethical theories, principles and concepts necessary to grasp the ethical issues in life, death, health care, biotechnology and the life sciences. Specific attention will be given to the social context of ethical decisions and there will be an emphasis on critical reasoning and justification. Special topics that may be discussed include: definitions of life and death, autonomy, parentalism, voluntary informed consent, rights, obligations, clinical trials, confidentiality, abortion and reproductive technologies, cloning, stem cells, end of life issues, transplantation and fair allocation of limited resources. (Prerequisite: ENGL 1117). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 9/Ethnic and Civic Responsibility).

PHIL 1145   Logic
This course is a study of the differences between logical and fallacious reasoning, the functions and the uses of language, and the rules of soundness and cogency. It will expand the method of natural deduction with the emphasis on detecting the presence or absence of logical properties and applying deductive rules to construct and prove valid arguments, especially ones drawn from ordinary language. (Prerequisites: MATH 0098 with a grade of C or better or appropriate score on RCTC placement test). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematical/Logical Systems.

PHIL 1160   Philosophy of Religion
This course will examine the most fundamental questions and concepts of religion across a variety of religious and cultural traditions. We will critically examine the nature of religion, attempts to prove God¿s existence, views of ultimate reality, permanence and impermanence, religious experience, truth claims of competing religions, and the meaning of religious language. Readings will be selected from classical and contemporary philosophy of religion at the discretion of the instructor. (Prerequisites: College level reading and writing as determined by assessment test or passage of ENGL 1117). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

PHYSICS

PHYS 1101   Elements of Physics
This course is a non-mathematical introduction to physics for the non-science major. The course covers topics that include units and measurement, linear motion, Newton's laws of motion, work and energy, temperature and heat, heat transfer, specific heat and latent heat, waves, sound, reflection and refraction, mirrors and lenses, color theory, electrostatics, electricity, magnetism and magnetic induction. In the laboratory, we will cover topics in experimentation that include data taking, graphing, use of scientific instruments and simple error analysis. (Prerequisites: None). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

PHYS 1103   Principles of Physics

This course is a one-semester algebra-based general introduction to physics covering the topics of motion, force, energy, fluids, waves, basic electricity, radioactivity, and emission of radiation. Problem solving is practiced both individually and in groups. The laboratory includes the acquisition of experimental data, analysis, and graphing. Group presentations on physics topics are included in the course. College level reading and writing skills are required. (Prerequisites: MATH 0099). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Science.

PHYS 1117   Introductory Physics I

This course is the first semester of a two-semester algebra-based introduction to physics. The course covers topics from mechanics that include linear and parabolic motion, Newton's Laws of motion, energy, momentum, angular motion and torque, fluid mechanics, periodic motion, waves and sound. Emphasis is on both conceptual learning and problem solving. The laboratory experience will provide the student with opportunities for discovery, measurement, report writing and data analysis. College-level reading and writing skills are required. (Prerequisites: MATH 1117). (5 C/4 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

PHYS 1118   Introductory Physics II

This course is the second semester of a two-semester algebra-based introduction to physics. The course covers the following topics: temperature and heat, heat transfer, calorimetry, the first and second laws of thermodynamics, electrostatics, simple DC circuits, electric safety, AC circuits, optics, relativity, and atomic and nuclear physics. Emphasis is on both conceptual learning and problem solving. The laboratory experience will provide the student with opportunities for discovery, measurement, report writing and data analysis. College level reading and writing skills are required. (Prerequisites: PHYS 1117 or permission of instructor). (5 C/4 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

PHYS 1127   Classical Physics I

This course is the first semester of a two-semester introduction to classical physics using the mathematics of vectors and calculus. Topics studied include vectors, motion in one and two dimensions, Newton's Laws of motion, work and energy, conservation of momentum, torque and rotational motion, simple harmonic motion, waves, sound, and fluid mechanics. These topics are studied through lecture, discussion, interactive problem-solving, demonstrations, hands-on laboratories, and independent work. Free-body diagrams are used extensively. Emphasis is on both conceptual learning and problem solving. The laboratory experience will provide the student with opportunities for discovery, measurement, technical writing and data analysis. College level reading and writing skills are required. (Prerequisites: MATH 1127 or concurrent enrollment in MATH 1127). (5 C/5 lect, 2 lab). MNTC: Goal 2/CT, Goal 3/NS.

PHYS 1128   Classical Physics II

This course is the second semester of a two-semester introduction to classical physics using the mathematics of vectors and calculus. Topics studied include temperature, heat, the first and second laws of thermodynamics, electrostatics, electric and magnetic fields, simple DC circuits, Kirchhoff's Laws, Ampere's Law, Faraday's Law, resistance, capacitance, inductance, AC circuits, electromagnetic waves, Maxwell's equations, geometric and physical optics. These topics are studied through lecture, discussion, interactive problem-solving, demonstrations, hands-on laboratories, and independent work. Emphasis is on both conceptual learning and problem solving. The laboratory experience will provide the student with opportunities for discovery, measurement, report writing and data analysis. College level reading and writing skills are required. (Prerequisites: PHYS 1127 and MATH 1128. MATH 1128 may be taken concurrently). (5 C/5 lect, 2 lab).

PHYS 1134   Stellar Astronomy

This course is an introduction of stellar astronomy for the non-science major. The course covers topics that include light spectra, the sun, the stars, galaxies, supernovae, black holes and the Big Bang. In addition, students will be introduced to the stunning beauty of the universe as revealed in images, written works and direct experience through the telescope. Laboratory exercises introduce students to the methods astronomers use to study the universe. Lab work is supplemented by astronomical observing sessions at the RCTC Observatory. NOTE: ESCI 1134 and PHYS 1134 are cross-listed. Students may take one or the other for credit, but will not receive credit for both. (Prerequisites: Appropriate score on the RCTC placement test with needed score into developmental English). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

PHYS 2227   Modern Physics

This course is a one-semester overview of modern physics. Topics studied include special relativity, the experimental basis of quantum mechanics, wave-particle duality, introduction to wave mechanics, the Schrodinger Equation, application of the Schrodinger equation to the hydrogen atom and the development of the atomic structure, molecular structure, solid state and nuclear structure. College level reading and writing skills are required. (Prerequisites: PHYS 1128, MATH 1128 and concurrent enrollment in MATH 2237 or consent of instructor). (3 C/3 lect, 0 lab).

PERSONAL LIFE

PL 1102   Self Esteem

Origins of one's self esteem; impact of self talk; positive affirmations; value of realistic goal setting; impact of distorted and irrational

thinking; features, characteristics and manifestations of perfectionism and procrastination; value of one's support system; self evaluation. (Prerequisites: College level reading and writing or permission of instructor). (1 C).

PL 1104   Stress Management
This course examines the positive and negative ramifications of stressors and practical interventions to manage stress more completely. Course content is designed to challenge students through awareness of the model of stress and use of various strategies to develop healthier coping skills. (Prerequisites: College level reading and writing). (1 C).

PRECISION MANUFACTURING TECHNOLOGY

PMT 1095   Blue Print Reading
This class provides an overview of common features found in prints and describes how to properly inspect them and understand blue prints. A key component of this class will be reading shop prints and inspecting finished parts. (Co-requisites: PMT 1105, 1115, 1255, 1300). (1 C/1 lect, o lab).

PMT 1105   Manual Mill Theory
This course describes the basic components of a manual mill and all the equipment required to safely use a mill. (Prerequisites: None. Co-requisites: CAD 1230, MATH 1015). (1 C).

PMT 1115   Measuring, Inspection and Tool Setup
This class introduces the basic measuring devices used in the shop to ensure part quality, inspection of parts and tool setup. Emphasis will also be placed on using measuring devises and the safe handling of the equipment. (Co-requisites: PMT 1105, 1255, 1300). (1 C/1 lect, 0 lab).

PMT 1155   Manual Lathe Theory
This course describes the basic components of a manual lathe and all the equipment required to safely use a lathe. (Prerequisites: None. Co-requisites: CAD 1230, MATH 1015). (1 C).

PMT 1205   Basics of Computer Numerical Controlled Turning
This course describes the basic components of a CNC turning center and various devices used on the machine. (Prerequisites: None. Co-requisites: CAD 1050, CAD 1230, MATH 1015, PMT 1155). (1 C).

PMT 1255   Basics of Computer Numerical Controlled Machining
This course describes the basic components of a CNC milling center and various devices used on the machine. (Prerequisites: None. Co-requisites: CAD 1050, CAD 1230, MATH 1015, PMT 1105). (1 C).

PMT 1300   Open Manufacturing Lab I
This course is an open lab in machining fundamentals. The student will have hands on experience on manual and basic CNC machine shop equipment. Topics of study include safety, measuring parts to print, proper set up, speeds and feeds, and cutting tool usage. (Prerequisites: None. Co-requisites: CAD 1050, CAD 1230, PMT 1105, PMT 1155, PMT 1255). (8 C).

PMT 1705   Computer Numerical Controlled Coordinates
This course explains the arrangement and orientation of the basic axes on a common CNC lathe and CNC mill. (Prerequisites: CAD 1050, CAD 1230, MATH 1015, PMT 1205, PMT 1255. Co-requisites: CAD 2000, PMT 1705, PMT 1755, PMT 1805). (1 C).

PMT 1755   Computer Numerical Controlled Operations
This course describes the control features that allow a CNC operator to execute tasks manually. (Prerequisites: CAD 1050, CAD 1230, MATH 1015, PMT 1205, PMT 1255. Co-requisites: CAD 2000, PMT 1705, PMT 1805). (1 C).

PMT 1805   Computer Numerical Controlled Offsets
This course identifies the various offsets used on both the lathe and the mill to properly reference each cutting tool in relationship to the workplace. (Prerequisites: CAD 1050, CAD 1230, MATH 1015, PMT 1205, PMT 1255. Co-requisites: CAD 2000, PMT 1705, PMT 1755). (1 C).

PMT 1900   Open Manufacturing Lab II
This course is an open lab in machining fundamentals. The student will have hands on experience on manual and basic CNC machine shop equipment. Topics of study include safety, measuring parts to print, proper set up, speeds and feeds, and cutting tool usage. (Prerequisites: CAD 1050, CAD 1230, PMT 1105, PMT 1155, PMT 1255, PMT 1300. Co-requisites: CAD 2000, PMT 1705, PMT 1755, PMT 1805, PMT 1855). (8 C).

PRACTICAL NURSING

PNM 1200   Pharmacology for Practical Nursing

This pharmacology course provides concepts of basic pharmacology and methods of calculating drug dosages. Principles and skills related to medication preparation and administration of non-parenteral and parenteral medications will be emphasized. Medication classification, action and effects are discussed. Laboratory performance of non-parenteral and parenteral medications will be demonstrated prior to clinical administration of medications to patients. (Prerequisites: Concurrent registration in PNM 1210, PNM 1220 & PNM 1240. Previous or concurrent registration in BIOL 1107, ENGL 1117). (3 C/2 lect, 3 lab).

PNM 1210   Success in Nursing

This course is designed to assist the student to develop life management skills that support success in nursing school and future career positions. Emphasis is placed on the practical application of topics such as stress, time management, motivation, goal setting, and learning style. The variety of educational and career opportunities and survival tips for a successful nursing education experience will be discussed. (Prerequisites: College level reading and writing skills recommended. Can be taken prior to entry into the PN sequence courses or concurrent with the 1st semester courses. (1 C/1 lect, 0 lab, 0 OJT).

PNM 1220   Nursing Skills and Concepts

This course introduces the student to basic skills, concepts, and principles and expectations of providing holistic patient care. Topics will include basic nursing procedures, communication skills, ethical/legal responsibilities, medical/surgical asepsis and nursing documentation. Nursing procedures related to basic patient needs will be taught through clinical simulation in the nursing laboratory. This course also provides the beginning level of acute care clinical experience. The student will implement basic communication skills, organization and implementing routine personal care to one patient; make observations of patient needs and perform specified nursing abilities with instructor guidance and supervision. (Prerequisites: Admission to Practical Nursing program. HS diploma or GED. Overall GPA 2.0 or higher. MATH 0098 or equivalent. College level reading and writing. Nursing assistant course or equivalent. CPR for the health care professional). (4 C/2 lect, 2 lab).

PNM 1230   Introduction to Pharmacology I

This introductory course provides concepts of basic pharmacology and methods for calculating drug dosages. Principles and skills related to medication preparation and administration of oral and topical medications will be emphasized. Medication classification, action, and effects are discussed. Laboratory performance of oral and topical medications will be demonstrated prior to clinical administration of medications to patients. (Prerequisites: Satisfactory completion of PNM 1210, PNM 1220. Previous or concurrent registration in BIOL 1107, PSYC 1611. Concurrent registration in PNM 1240). (2 C/1.5 lect, .5 lab).

PNM 1240   Care of the Older Adult

This course will cover special topics in the care of the older adult including: biological theories of aging, physical/psychological changes, and social psychosexual and cognitive needs. Changing demographics and diversity of the aging population are included. Community services available to facilitate maximum health promotion will be discussed. Aspects of losses & ethical dilemmas of the elderly are included. The student will have the opportunity to integrate nursing theory in a long- term care setting. (Prerequisites: Satisfactory completion of PNM 1210 and 1220. Previous or concurrent registration in BIOL 1107, PSYC 1611. Concurrent registration in PNM 1230). (3 C/1.5 lect, 1.5 lab).

PNM 1320   Family and Mental Health Concepts

This course introduces nursing concepts related to pregnancy, postpartum care and common disorders that affect infants and children. The obstetrical portion presents the fundamental principles of labor, delivery and nursing care of the family. The pediatrics portion presents the physiological response of children to illness. Special topics will also include the needs of children with mental and physical delay and cultural diversity. Basic principles of mental health and illness will assist the student to develop the skills necessary to care for patients exhibiting maladaptive behaviors and those with stabilized psychiatric, emotional, and mental disorders. This course also includes clinical experience in the care of obstetrical, pediatric and adults with medical/surgical disorders. The student will implement basic nursing abilities and utilize communication and planning skills in the total care of clients. This clinical will include the administration of oral, topical and parenteral medications. (Prerequisites: Current CPR certification; Satisfactory completion of Semester I PNM requirements. Previous or concurrent registration in ENGL 1630 (or ENGL 1117). Concurrent registration in PNM 1330, PNM 1340). (6 C/4 lect, 2 lab).

PNM 1330   Introduction to Pharmacology II

This course builds on principles of Introduction to Pharmacology I. Methods for calculating parenteral dosages will be discussed. Principles related to the medication preparation and administration of parenteral medications will be emphasized. Specific parenteral medication action and effects will be discussed. Laboratory performance of parenteral skills will be demonstrated prior to clinical administration of medications to patients. (Prerequisites: Satisfactory completion of all Semester I PNM requirements. Previous or concurrent registration in ENGL 1630 (or ENGL 1117). Concurrent registration in PNM 1320, PNM 1340). (1 C/.5 lect, .5 lab).

PNM 1340   Adult Nursing

This course provides an introduction and exploration of adult health disorders. Principles & concepts of health & illness, pain

management, and psychosocial aspects of nursing care are discussed. The importance of nursing observations and the implementation of safe and effective nursing actions are emphasized. Selected topics of system disorders include: cancer, integument, immune, musculo-skeletal, nervous, gastrointestinal, endocrine, respiratory, cardiovascular, blood, peripheral vascular, genitourinary, & renal disorders. This course includes clinical experience to enhance practical understanding & treatment of disorders in the adult within the LPN scope of practice. (Prerequisites: Current CPR certification; Satisfactory completion of Semester I PNM requirements. Previous or concurrent registration in ENGL 1630 (or ENGL 1117). Concurrent registration in PNM 1320, PNM 1330). (6 C/4 lect, 2 lab).

PNM 1440   Integrated Clinical Application

This course will assist the student in his/her transition role as a graduate practical nurse. Special topics include: nursing career opportunities, employee/employer expectations, interdisciplinary nursing practice, organizational communication, group process/team building, organizational leadership styles, licensure, professional/ethical decision-making and problem solving. This course will include an introduction to healthcare in the community, including the different roles of caregivers. Discussions will include health promotion & prevention as it relates to the individual, family, & community. The clinical experience is organized using typical work hours to integrate experience with licensed team members. The student will be expected to exhibit higher levels of problem solving and critical thinking as they apply nursing actions in multiple patient assignments. Effective team membership and ethical/professional decision-making skills will be evaluated. (Prerequisites: Successful completion of PNM 1320, 1330, and 1340; ENGL 1117 or 1630). (4 C/1.5 lect, 2.5 lab).

POLITICAL SCIENCE

POLS 1615   Introduction to American Government

This is a survey course of American Government, with an emphasis on political theory and history, the Constitution, civil liberties and rights, public opinion, interest groups, the political process, mass media, and branches of the federal government. An overview of public policy and state and local government will also be provided. (Prerequisites: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 9/Ethnic and Civic Responsibility.

POLS 1619   International Relations

This is a course of International Relations, with emphasis on U.S. foreign policy. Topics will include theory, immigration, trade, imperialism, war and peace, terrorism, national sovereignty, and world order. (Prerequisites: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

POLS 1620   Constitutional Law

This course seeks to provide students with knowledge about the nature and scope of American Constitutional rights and liberties based upon the United States Constitution as interpreted by the United States Supreme Court. (Prerequisites: College Level Reading and Writing Skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 9/Ethnic and Civic Responsibility.

POLS 1630   Introduction to Political Science

This course introduces students to the dynamics of politics. This includes political theory, political behavior, institutions, comparative governments, international relations, and the causes of war and peace. The course will also examine power, conflict, ideology, nationalism and revolution with special emphasis in structure and change in democratic and non-democratic governments. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/ History and the Social and Behavioral Sciences, Goal 9/Ethical and Civic Responsibility.

PSYCHOLOGY

PSYC 1600   Positive Life Skills

This course will focus on understanding and developing successful life skills, what success is, and how to achieve it. Through exposure to major learning and developmental theories, readings, guided journals, cases studies in critical thinking, self assessment inventories, and group activities, students will discover how to make wise decisions that enable them to experience greater self-awareness, self-management, creative and critical thinking, emotional intelligence, and lifelong learning skills that lead to academic, personal, and professional success. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

PSYC 1611   Psychology of Adjustment

This course emphasizes personal growth and human adjustment, including topics such as personality, coping with stress, interpersonal communication, intimate relationships, careers, sexuality, and psychological disorders. (Prerequisites: College level reading and writing skills: Appropriate scores on RCTC placement tests or completion of appropriate developmental courses). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

PSYC 1650   Evolution and Human Behavior

This course provides an introduction to evolutionary psychology: the scientific study of human behavior and mental processes focusing only on processes that evolved to solve survival and reproductive challenges. Topics covered will include natural selection, sexual selection, food acquisition, long-term and short-term mating strategies, jealousy, family relationships, cooperation, group-living, culture, aggression, conflict, and dominance. (Prerequisites: College level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 10/People and the Environment.

PSYC 2291   Specially Designed Independent Study

Specially Designed Independent Study: Theories of Personality

PSYC 2611   Social Psychology

This course examines the relationship of the individual to the social environment, emphasizing group influences on individual behavior. (Prerequisites: Grade of 'C' or better in PSYC 1611 or PSYC 2618). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity).

PSYC 2618   General Psychology

This course is an introduction to the scientific study of human behavior and mental processes. The topics covered will include research methods, the biological roots of behavior, sensation, perception, principles of learning, memory, thinking, language, intelligence, emotions, stress, personality, psychological disorders, therapy, and social psychology. (Prerequisites: College level reading, writing skills or appropriate score on RCTC placement test or completion of appropriate developmental courses). (4 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

PSYC 2620   Introduction to Cultural Psychology

This course studies how cultural traditions and social practices regulate, express, and transform the human psyche, the influences of cultural processes and environments on a wide range of psychological topics, such as cognition, emotion, motivation, moral reasoning and mental disorders. (Prerequisites: Grade of 'C' or better in PSYC 1611 or PSYC 2618 or SOC 1614). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

PSYC 2622   Abnormal Psychology

Analysis and understanding of abnormal behavior, covering topics such as the historical background, mood, anxiety and schizophrenic disorders; personality disorders, substance related disorders, disorders of childhood and adolescence; causes of abnormal behavior, prevention and therapy; cultural diversity of abnormal behavior. (Prerequisites: Grade of 'C' or better in PSYC 1611 or PSYC 2618). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

PSYC 2626   Human Growth & Development

This course is an introduction to the scientific study of human development. It explores the universal features and individual variations of physical, cognitive, emotional, and social development from conception to death. (Prerequisites: Grade of 'C' or better in PSYC 1611 or 2618). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

READING

READ 0800   Preparation for College Reading

This course will introduce basic skills necessary to read and understand college level texts in a variety of content areas. Topics will include: practices to increase comprehension, increase vocabulary, development of thoughtful responses to reading and basic organization of textbook information. (Prerequisites: Appropriate score on RCTC placement test). (4 C).

READ 0840   Developmental Reading

This class will cover reading/study strategies for success in a variety of content areas. Some of the topic areas may include: social sciences, science and technology, and humanities. (Prerequisites: Appropriate RCTC placement score required). (4 C/4 lect, 0 lab).

READ 0900   Introduction to College Reading

This course focuses on development of strategies and skills necessary for reading and understanding college-level academic texts in a variety of content areas. (Prerequisites: Appropriate score on RCTC placement test or successful completion of READ 0800 with a grade of C or better). (4 C).

READ 1111   College Reading

This is needed.

RECREATION

REC 2210   Recreation Program Leader
This course is designed to develop a philosophic recreational background with a practical hands on experience with recreational event planning, promoting and managing of events and facilities. The student will develop a broad background in the foundations of recreation and play. They will also have hands on experience with the planning and managing of recreational events and leagues. (Prerequisites: PHED 2270 and 2280 or instructors permission). (3 C).

REC 2220   Great River Adventures
This course is designed to give the student an outdoor canoeing experience, camping experience, and learning about the river as a means of transportation. A different river or scenario will be featured each year. (Prerequisites: Reasonable physical fitness for paddling and controlling a canoe). (3 C).

REC 2223   Outdoor Education and Recreation
A course developed to acquire an acquaintance and understanding of the history and scope of Outdoor Education and Recreation; special emphasis will be placed on practical application of outdoor education and recreational activities in the natural setting. (Prerequisites: None). (3 C).

REC 2294   Recreation Internship
On the job supervised work experience in the field of Recreation. (Prerequisites: Physical Education, Sports Facility Management majors, Recreation majors or consent of instructor). (2-3 C).

RETAIL MERCHANDISING

RMDS 1110   Introduction to Retail Merchandising
An orientation to the retail business covering the multiple steps in the process of creating and merchandising apparel and home fashions emphasizing ethical positions reflected in decision making regarding the delivery of products to the ultimate consumer within each associated profession. Topics covered include: development of the fashion system and the ready-to-wear industry; early ethical positions on the use of labor; how consumer demand fuels fashion; apparel manufacturing and sweat-shop labor; business and legal framework for the industry; types of retailers and retailing; retail functions; retailer as citizen of the community. Related careers will be examined. (Prerequisites: None). (3 C).

RMDS 1120   Visual Merchandising
A study of total visual presentation of merchandise to the consumer. Elements and principles of design are incorporated when analyzing and developing exterior and interior store windows and store layouts. The use of themes, mannequins, props, lighting, fixturing, and signage in the retail environment will be explored. A store plan will be developed which will include store layout, promotions, and advertising procedures to achieve marketing objectives. (Prerequisites: None). (3 C).

RMDS 1130   Textiles
The study of natural and man-made fibers analyzing: individual fiber characteristics, the processes these fibers undergo to become a yarn, fabric construction, dyeing, and the finishes applied. Government legislation and regulation, and current consumer issues researched. Knowledge provided to aid in the selection and care of apparel and interior fabrics. (Prerequisites: College level reading and writing or permission of instructor). (3 C).

RMDS 1140   Professional Image in Business
A study of the factors involved in clothing selection emphasizing the business wardrobe for both men and women relative to the elements and principles of design. The development of a professional image will be explored through such topics as business etiquette, leadership and time management skills, communication skills, resume writing, and interviewing. (Prerequisites: None). (2 C).

RMDS 1150   Introduction to Interior Decorating
An orientation to the retail business covering the multiple steps in the process of creating and merchandising apparel and home fashions emphasizing ethical positions reflected in decision making regarding the delivery of products to the ultimate consumer within each associated profession. Topics covered include: development of the fashion system and the ready-to-wear industry; early ethical positions on the use of labor; how consumer demand fuels fashion; apparel manufacturing and sweat-shop labor; business and legal framework for the industry; types of retailers and retailing; retail functions; retailer as citizen of the community, identification of the professional role of the interior decorator. Related careers will be examined. This course also covers the identification and application of design elements and principles as they relate to interior decorating. Providing decorating skills to enter the marketplace in retailing. (Prerequisites: None). (3 C).

RMDS 2210   National/International Retail Merchandising/Interior Decorating Study Tour
A study of the retail and interior decorating industry on a national/international basis, including lectures and discussions by that country's leading retail and interior decorating professionals and tours of related retail, interior decorating and business environments. Tour costs to be provided by the students. Study tour will be to such industry centers as New York, Chicago, London, Paris, Hong Kong, and China. (Prerequisites: None). (2 C).

RMDS 2221   Interior Design
Historic American architecture and period furnishings will be studied along with the elements and principles of interior design. Materials and components used in both residential and non-residential interiors will be studied as well as code requirements, and an overview of computer technology as relative to interior design. Career opportunities, business procedures and the development of a professional portfolio will be discussed. This information will be applied to a project in residential design and a non-residential interiors project. (Prerequisites: College level reading and writing or permission of instructor). (3 C).

RMDS 2230   Showmanship and Promotion
Application of the procedures involved in the promotion of retail merchandising with regard to oral and written promotional communication and publicity. Students will participate in the production of a professional fashion show and develop a retail merchandising promotional plan. (Prerequisites: College level reading and writing or permission of instructor). (3 C).

RMDS 2240   History of Costume
Survey of costume beginning with ancient civilizations that contributed to the development of Western civilization to the year 2000. Analysis of American costume as it evolved from colonial to contemporary times with emphasis on aesthetic costume characteristic and the social, political, religious, and economic influences. Fashion as it reflects cultures and influences contemporary costume will be explored. (Prerequisites: College level reading and writing). (3 C).

RMDS 2250   Store Management
Development of management skills for retail stores of varying sizes as well as development of management skills for a variety of management levels within a retail company. Techniques to increase sales, hiring and maintaining a motivated staff, retaining staff, determining individual sales goals, and managing a store effectively will also be developed. (Prerequisites: College level reading and writing). (3 C).

RMDS 2260   Retail Buying
Principles and mathematics of merchandise inventory control and the merchandise selection process to include: budgeting, assortment planning, managing inventory, and buying for resale. (Prerequisites: College level reading and writing). (3 C).

RMDS 2290   Retail Merchandising Seminar
An examination of special topics of current interest to retail merchandising students. Guest lecturers from the retail merchandising industry are invited to share their background and knowledge. Students will participate in field trips to observe current practices and trends in retail. (Prerequisites: College level reading and writing). (1 C).

RMDS 2294   Retail Merchandising Internship
Work experience program designed to help retail merchandising students apply classroom information on the job. Designed to make the work experience a learning experience to the student will be able to advance into a management position. Students may enroll in this class more than once if the second internship provides a different experience than the first. Examples might include: a position with Walt Disney World, Florida; a different position with another type of retail company. (Prerequisites: College level reading and writing). (2 C).

SCIENCE EDUCATION

SCIE 1100   Integrated Biology and Chemistry
This one semester course is designed to introduce students to key concepts in biology and chemistry using an integrated approach. The course covers basic biological and chemical terminology while emphasizing the connection between biology and chemistry in major content areas which include: the characteristics of life, the chemical structure of biological molecules, cell structure and function, chemical reactions and metabolism, genetics and biotechnology. (Prerequisites: 12th grade reading and writing skills). (3 C/2 lect, 2 lab). MnTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

SCIE 1200   Integrated Earth Science and Physics
This one semester course is designed to introduce students to key concepts in earth science and physics using an integrated approach. The course covers basic terminology while emphasizing the connection between earth science and physics in major content areas which include: earth and space, motion and force, energy, waves, meteorology and climate, earth materials, surface environments, electricity, and sources and production of energy. (Prerequisites: 12th grade reading and writing skills). (3 C/2 lect, 2 lab). MnTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

SUPERVISORY MANAGEMENT

SMGT 1115   Strategies for Personal Leadership
In this course students will learn practical tools to manage time, develop habits to increase personal productivity, create an individual time management plan, and learn and demonstrate interpersonal skills in workplace situations. Through integration of the habits of highly effective people, students will learn to effectively manage priorities, learn to set goals, develop daily and weekly action plans, handle interruptions, delegate, and determine the relative effectiveness of traditional time management tools. Students will identify and demonstrate specific skills such as giving and receiving effective feedback, gaining support from others, and expressing ideas effectively. Focus will be on the practical application of skills for supervisors to increase personal and professional effectiveness and develop strong professional relationships. (Prerequisites: None). (3 C/3 lect, 0 lab).

SMGT 1125   Leadership Development and Ethics
In this course, students will learn leadership concepts and tools to enhance and improve their ability to motivate and positively influence others. Emphasis will be placed on creating positive and powerful relationships based on principles and values. Additionally, the ethical considerations of leadership will be discussed. Students will learn strategies and skills to effectively deal with the ethical issues that supervisors must face at work. Key topics include leadership, motivation, confidentiality, and organizational and individual behavior as they relate to sexual harassment, workplace violence, employee theft, and customer relationships. Discussions will focus on how supervisors can develop the skills necessary to support, motivate, and lead others at work, inspire continuous improvement, and nurture creativity in a competitive environment. (Prerequisites: None). (3 C/3 lect, 0 lab).

SMGT 1135   Managing Change and Conflict
This course will provide learners with tools and techniques that are essential in keeping pace with the rapid and dramatic changes taking place in the workplace today. Students will learn to lead effectively and to identify and overcome resistance to change by creating a work environment where change is expected and viewed as positive. This course also covers techniques for resolving conflict in the workplace and negotiating collaborative solutions. Emphasis will be placed on selecting and applying conflict resolution and appropriate negotiation strategies for given situations by learning how to effectively confront conflict in its early stages and to negotiate solutions that are beneficial to all persons involved. (Prerequisites: None). (2 C/2 lect, 0 lab).

SMGT 1199   Supervisory Leadership Field Study
This course will focus on the practical application of recently learned supervisory management principles and concepts through application of their most previous course work to the workplace. The advisor must approve the field project. Student outcomes of the field project will be designed by the student to enhance their workplace skills and must be directly related to course content in the Interpersonal Communication Certificate. This course is intended to be taken after the completion of other courses in the certificate. (Prerequisites: SMGT 1100, 1110, 1120, 1130, 1140, 1150, 1160). (2 C/1 lect, 2 lab).

SMGT 1215   Continuous Improvement Management and Decision Making
This course will teach participants the skills and resources needed to define and resolve organizational problems in order to make decisions by using the right tools and processes to achieve quality and improvement. Students will learn to identify customer and organizational needs, establish key performance indicators, apply tools and techniques for improving systems and processes, develop a continuous improvement plan for work group members, and gain approval and support for successful implementation. Actual workplace problems will be utilized for individual and group decision making. The course will culminate with a group decision-making, continuous improvement project. (Prerequisites: None). (4 C/4 lect, 0 lab).

SMGT 1225   Team Building and Facilitation Skills
This course focuses on strategies to build and lead effective work teams. Students will learn tools and techniques in leading and facilitating productive meetings, drawing on the knowledge and expertise of individuals and teams within an organization. Focus will be placed on how to build and maintain synergism in relationships among work groups and internal partnerships as well as learning the practical application of skills necessary for a supervisor to plan, prepare, conduct, and evaluate productive meetings. (Prerequisites: None). (2 C/2 lect, 0 lab).

SMGT 1235   Planning and Project Management Within A Customer Service Culture
This course provides an overview of methods used managing a project on either large or small projects. Students will review the tools and procedures for designing, planning, scheduling, and managing individual, departmental, and organizational projects. Students will also learn to create a culture supportive of making customer-focused decisions and to lead others to excellence in customer service. Students will plan a leadership project that creates, maintains, or enhances a customer-service culture. (Prerequisites: None). (2 C/2 lect, 0 lab).

SMGT 1245   Innovation and Creativity in the Workplace
The course will focus on developing techniques that will assist students in developing creative strategies to implement into the participant's personal and professional life. The course will make the case for creativity and innovation as a vital component of a

leader's repertoire. Students will plan an innovative relevant workplace action plan using the tools and techniques covered in this course. (Prerequisites: None). (2 C/2 lect, 0 lab).

SMGT 1299   Quality and Productivity Field Study

This course will focus on the practical application of supervisory management principles and concepts through application of the student's previous course work as it applies to the workplace. The advisor must approve the field project. Student outcomes of the field project will be designed by the student to enhance their workplace skills and must be directly related to course content in the Productivity Certificate. This course is intended to be taken after the completion of other courses in the certificate. (Prerequisites: None). (2 C/1 lect, 2 lab).

SMGT 1305   Employment Law and Safety Compliance

This course teaches students to examine workplace issues impacting supervisory responsibilities such as employee hiring decisions, discrimination, unemployment compensation, workers' compensation, Fair Labor Standards Act, employee health and safety, unions, workplace harassment, documentation, and termination. Recommended entry skills/knowledge: Reading and writing at the college level is encouraged. (Prerequisites: None). (2 C).

SMGT 1315   Employee Selection and Retention

This course provides the skills and knowledge necessary for individuals to recruit, select, hire, and retain employees in today's workplace. Assuring your team has the right people in the right positions is a key skill for today's managers and supervisors. Additionally, once you have hired the right person, it's vital to keep them. Special consideration is given to the legal aspect of the recruitment and hiring process. Recommended entry skills/knowledge: Reading and writing at the college level is encouraged. (Prerequisites: None). (2 C).

SMGT 1325   Performance Management and Coaching

This course covers techniques for setting, monitoring, and improving employee performance. Today's workplace demands employees meet and even exceed expectations. Students will learn procedures for setting performance standards, measuring results, and discussing performance. Students will also learn skills necessary for conducting an effective performance review including how to plan for a performance review meeting, how to develop a performance improvement plan, how to provide for periodic progress reviews and how to practice interim coaching skills. Recommended entry skills/knowledge: Reading and writing at the college level is encouraged. (Prerequisites: None). (2 C).

SMGT 1335   Managing in Today's Workforce

This course seeks to prepare leaders to manage the diverse needs of their employees including multi-cultural, gender, and generational differences. Today's ever changing technology and globalization offers great opportunities and challenges to supervisors and managers within companies. Additionally, individuals will learn strategies for creating an inclusive workforce, addressing technology's role in management, and how to manage within a 24/7 work environment. Recommended entry skills/knowledge: Reading and writing at the college level is encouraged. (Prerequisites: None). (2 C).

SMGT 1350   Employee Training and Development

This course provides students with the skills and strategies necessary to assess training needs, design and prepare a training plan. Emphasis will be on meeting identified training needs, using effective adult learning techniques, and transferring the training to the workplace. Reading and writing at the college level is encouraged. (Prerequisites: None). (2 C).

SMGT 1399   Human Resource Development Field Study

This course will focus on the practical application of recently learned supervisory management principles and concepts through application of their most previous course work to the workplace. The advisor must approve the field project. Student outcomes of the field project will be designed by the student to enhance their workplace skills and must be directly related to course content in the Human Relations Certificate. This course is intended to be taken after the completion of other courses in the certificate. (Prerequisites: None). (2 C/1 lect, 2 lab).

SMGT 1400   Portfolio Development

This course will guide students through the creation of an individualized degree plan for the Supervisory Management AAS degree program. Students will also assess previous education, prior learning from work and life experiences, and develop a portfolio of prior learning which will be submitted for review. (Prerequisites: None). (1 C/1 lect, 0 lab).

SMGT 1420   Documentation and Written Communication

This course is specifically designed to provide students with the skills necessary for supervisors to effectively and accurately document performance and communicate with employees using a variety of written formats. The course will emphasize the importance of determining the who, what, why, where, when, and how in written communications to clearly communicate understanding of important information to employees. Typical situations for supervisors requiring course learning objectives include providing performance feedback, documenting a safety or discipline incident, giving precise directions, or preparing a formal report. (Prerequisites: None). (1 C/1 lect, 0 lab).

SOCIOLOGY

SOC 1612   Sex and Gender in Society
An introduction to both the biological and cultural aspects of human sexuality and gender in society. Lectures, readings, discussions, and films on sexual behavior, sexual development, conception and contraception, sexual dysfunction, deviation, variation, socialization, cultural influences and attitudes. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

SOC 1614   Introduction to Sociology
An introduction to the process of applying a sociological perspective to understanding the social world including patterns of behavior and interaction, culture, socialization, social structure, groups and organizations, social stratification, institutions and social change. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

SOC 1616   Social Problems
A sociological analysis of the nature, causes and possible responses to a variety of contemporary and future American and global social problems including problems associated with individual and group deviance, inequality and exploitation, social change, institutional dysfunction and international and global conflict. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 9/Ethnic and Civic Responsibility.

SOC 1618   Environmental Sociology
This course is a sociological analysis of the relationship between social behavior, the social and natural environment within which humans live. The course applies a sociological approach to dscribe, explain and develop responses to current and potential problems in the environment. (Prerequisites: College level reading and writing). (3 C). MnTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 10/People and the Environment.

SOC 1914   Introduction to Sociology: Honors
This is a survey course which focuses on learning and applying the sociological perspective to understanding the social world, including a basic introduction to such topics as culture, socialization, interaction, groups and organizations, deviance, social institutions, social movements, and social change. In this course, students will read, analyze and apply information related to at least three of the primary sociological theories. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives. (Honors equivalent to SOC 1614).

SOC 2612   Marriage and the Family Across the Life Span
Sociological analysis of historical and contemporary patterns and trends in family life over the family span including investigations of dating, spouse selection, marriage, marital adjustment, parenting, aging, death and dying, divorce and remarriage, and family dysfunction. (Prerequisites: College level reading and writing; SOC 1614 or SOC 1914). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

SOC 2614   Medical Sociology
This course uses the sociological perspective to examine the role of the social environment in health, illness, and health care systems. Historical and contemporary issues relating to medicine, health, and illness area studied along with the diverse ways in which social categories such as gender, race, ethnicity, and social class affect health, illness, and medical care. (Prerequisites: SOC 1614; college level reading and writing). (3 C).

SOC 2618   Social Interaction
A systematic study of the process of social interaction and the formation and maintenance of social relationships. The course employs a variety of sociological perspectives to describe and explain social interaction and social agreement within the context of social groups and society. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

SOC 2625   Minority Group Relations
This course examines the social interaction of racial, ethnic and cultural groups in the United States. Topics include prejudice, discrimination, class and caste, stereotyping, ethnocentrism, segregation, assimilation, amalgamation, conflict and various proposals for responding to minority status. A special emphasis on the effects of social institutions on minority-majority relations. (Prerequisites: College level reading and writing; SOC 1614 or SOC 1914). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

SPANISH

SPAN 1001   Introduction to Hispanic Cultures

A comparative study of Hispanic cultures and societies exploring geographical, historical, socio-economic, political and religious issues, as well as the regional customs and interpersonal relations of the Hispanic world. Because these courses are taught in English, it is particularly suitable for students who have never studied a foreign language. This class is strongly recommended for students who are taking foreign language (Spanish). (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

SPAN 1101   Beginning Spanish I

This course is a two-semester Beginning Spanish sequence, 1101 and 1102, that is designed to offer basic training in the Spanish language with emphasis on pronunciation, coherent speaking, grammar, listening comprehension, writing and reading skills. The study of the language includes the cultural, geographical, linguistic and historical components that are an integral part of the vocabulary and syntax of Spanish. The Minnesota Transfer Curriculum Global Perspective competencies satisfied by this course include the cultural, religious, social and linguistic differences of Spain and Latin America, as well as the influence that geography, politics, economy, and history have on their contemporary societies. (Prerequisites: None). (4 C/4 lect, 0 lab). MNTC: Goal 8/Global Perspectives.

SPAN 1102   Beginning Spanish II

The beginning Spanish series (a two-semester sequence) is designed to continue basic training in the Spanish language with emphasis on pronunciation, coherent speaking, grammar, listening comprehension, writing and reading skills. The study of the language includes the cultural, geographical, linguistic and historical components that are an integral part of the vocabulary and syntax of Spanish. The course includes discussion of the cultural, religious, social and linguistic differences of Spain and Latin America, as well as the influence that geography, politics, economy and history have on their contemporary societies. (Prerequisites: 2 years of High School Spanish; SPAN 1101 or equivalent). (4 C/4 lect, 0 lab). MNTC: Goal 8/Global Perspectives.

SPAN 1130   Introductory Medical Spanish

The unique circumstances for health care workers in providing effective treatment can often be difficult due to communication barriers. This course provides a basic background in conversational Spanish to allow medical health care personnel to improve communication with their Spanish-speaking patients. Although students will be advised on how to work with an interpreter, this beginning course does not train the health care professional to assume the role of an interpreter. (Prerequisites: None). (2 C/2 lect, 0 lab).

SPAN 2101   Intermediate Spanish I

The Intermediate Spanish series reviews the fundamentals of the Spanish language, including additional and more advanced material in listening comprehension, speaking, idiomatic usage of vocabulary, grammar and writing exercises and awareness of cultural differences, appropriateness and sensitivity. It develops oral proficiency in real life contexts that will give the students a deeper understanding of Hispanic/Latino cultures. (Prerequisites: SPAN 1102 or three years of high school with a grade of A or B and/or instructor's permission). (4 C/4 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

SPAN 2102   Intermediate Spanish II

This course provides a comprehensive review of grammatical forms through listening, speaking, reading and writing. These skills are attained through conversational practice and are enhanced with a concurrent study of the civilization, culture, literature, and art of the Hispanic people. The student will gain a deep understanding of the language and its people and will be able to establish the differences between the Spanish and English speaking countries which impact international relations. (Prerequisites: SPAN 2101 or four years of high school Spanish with a grade of A or B and/or instructor's permission). (4 C/4 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

SPAN 2111   Spanish Conversation

This course is designed to increase vocabulary and develop oral skills through systematically guided conversation and dialogue concerning such possible topics as daily life, family, hobbies/recreation, education systems, food, travel and current events. (Prerequisites: SPAN 1102 or equivalent (2 years of high school Spanish). (2 C/2 lect, 0 lab).

SPAN 2292   Individualized Spanish Studies

Independent Study course

SURGICAL TECHNOLOGY

ST 2110   Surgical Technology Medications and Microbiology

This course is designed to provide comprehensive knowledge of many classifications of drugs, routes of administration, effects, and side effects of drugs used in surgery. This course also will provide an opportunity to learn about natural body defense mechanisms and the methods by which infectious diseases are transmitted, recognized, prevented and treated. (Prerequisites: BIOL 1217, BIOL 1218, CHEM 1101, ENGL 1117, BTEC 1600, NA 1610, PSYC 1611, BTEC 2870). (3 C/3 lect, 0 lab).

ST 2120   Operating Room Techniques I
This course covers the fundamental skills necessary to work in the operating room and related areas. Emphasis is on aseptic technique, scrub and circulator roles, equipment, supplies, instrumentation, legalities and the perioperative process of the patient. (Prerequisites: BIOL 1217, BIOL 1218, CHEM 1101, ENGL 1117, BTEC 1600, and NA1610, BTEC 2870, PSYC 1611; Co-requisites: ST 2110). (5 C/3 lect, 2 lab).

ST 2121   Operating Room Techniques II
This course covers knowledge on the preoperative process of patient, skin prep, positioning, instrument set-ups, and draping. Emphasis will be on general surgery procedures, lasers, obstetrics, pediatrics, and ear surgery. (Prerequisites: 2120; Co-requisites: ST 2110). (5 C/3 lect, 2 lab).

ST 2122   Introduction to Operating Room
This course covers surgical procedures performed in orthopedic and eye specialties. It includes introduction to clinical experience where the scrub and circulator roles are practiced. (Prerequisites: ST 2110, 2120, 2121). (3 C/1 lect, 2 lab).

ST 2123   Surgical Procedures I
This course combines classroom and clinical experience with a focus on procedures in neurosurgery, cardiovascular, peripheral vascular, plastics, and transplantation. In clinical, scrubber and circulating duties are practiced. (Prerequisites: ST 2110, 2120, 2121, 2122; Co-requisites: ST 2124). (9 C/2 lect, 7 lab).

ST 2124   Surgical Procedures II
This course combines classroom and clinical experience with a focus on procedures in thoracic, nose, throat, dental, gynecology and genitourinary surgery. In clinical, scrubber and circulator duties are practiced. (Prerequisites: ST 2110, 2120, 2121, 2122. Co-requisites: ST 2123). (9 C/2 lect, 7 lab).

STUDY SKILLS

STSK 1670   College Study Skills
This class will cover the concepts, methods, and strategies of effective and efficient learning in college. Topics to be explored and practiced will include: motivation/attitude, time management, note taking, test taking, and the use of the library. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

THEATRE

THTR 1121   Beginning Acting I
Beginning Acting is designed to give the student an overview as well as some experience in the art and craft of acting through an analysis of performances, object and scene study, improvisation, body movement, rhythms and vocalizations in creating a role. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

THTR 1134   Theatre Appreciation
This course is designed to help increase the awareness and understanding of a theatre production and the steps involved in preparing a play for performance. Some areas that will be dealt with include training and responsibility of the playwright, director, actor and designer as well as the historical and cultural significance of theatre including but not limited to Greek, German, British, Scandinavian, Russian, and American productions. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

THTR 1135   Stagecraft I
Stagecraft I is designed to introduce the student to the Theatre Scene Shop, basic shop tools and safety, and basic scenic construction techniques. Scenic painting techniques will be studied, practiced, and applied. (Prerequisites: College level reading skills). (3 C/3 lect, 0 lab).

THTR 2121   Intermediate Acting
This course continues where SPCH 1121 Beginning Acting leaves off. Intermediate acting introduces the student to a deeper understanding of the theories and approaches used to create characters physically, vocally, emotionally and mentally. The students in the class work together to develop scenes that require them to analyze and make choices for performance based on cultural issues, diversity and historical relevance, and style of the literature chosen. (Prerequisites: SPCH 1121 or permission of instructor). (3 C/3 lect, 0 lab).

TRANSLATING AND INTERPRETING

TRIN 1000   Orientation to Interpreting
This course introduces students to basic concepts in legal, medical and educational interpreting. Students will practice basic interpreting skills, review interpreter codes of ethics and standards of practice. Completing a basic self-assessment will help students evaluate their preparation for undertaking a course of study in interpreting. Students will role play various ethical situations and analyze a tape of their interpreting. (1 C).

TRIN 1021   Introduction to Translation and Related Skills
This course prepares students for further training in both translation and interpreting. It focuses on issues of accuracy and naturalness. Students will practice translating texts from one language to another and they will evaluate the quality of translations based on their ability to preserve meaning, while being natural and understanding to readers. (Prerequisites: TRIN 1000 or consent of instructor. Assessment score placement in RDNG 1000 or completion of RDNG 0090 with a grade of "C" or higher. Assessment score placement in ENGL 1021 or completion of ENGL 0090 with a grade of "C" or higher). Recommendations: Students have a language proficiency level equivalent to the American College Teachers of Foreign Languages (ACTFL) Oral Proficiency Interview (OPI) advanced-mid or higher rating in both English and the second language. (3 C).

TRIN 1031   Standards of Practice and Skills of Interpreting
In this course students will compare and contrast interpreting codes of ethics in the legal, medical, and educational fields. Students are introduced to professional standards of practice, and role play and practice techniques to help them implement the standards of practice. Students also begin practicing and developing cognitive capacities required for consecutive and simultaneous intepreting.(Prerequisites: TRIN 1021 or concurrent enrollment. Assessment score placement in RDNG 1000 or completion of RDNG 0090 with a grade of "C" or higher. Assessment score placement in ENGL 1021 or completion of ENGL 0090 with grade of "C" or better). Recommendations: Students have a language proficiency level equivalent to the American College Teachers of Foreign Languages (ACTFL) Oral Proficiency Interview (OPI) advanced-mid or higher rating in both English and the second language. (3 C).

TRIN 1041   Beginning Skills of Interpreting
In this course, students will conduct error analysis of their interpreting and refine their understanding of units of meaning. Activities to develop cognitive capacities for both the consecutive and simultaneous modes will form the core of this course. Topics include memory enhancing activities, shadowing and dual-tasking, as well as memory aides such as note-taking, visualization, and chunking. Students will also continue to discuss ethically challenging situations and the role of the interpreter. (Prerequisites: TRIN 1021, TRIN 1031, and consent of instructor. Students must have a language proficiency level equivalent to the American College Teachers of Foreign Languages (ACTFL)Oral Proficiency Interview (OPI)advanced-high or higher raing in both English and the second language).

TRIN 2020   Occupational Specialty Glossary Development
This course introduces strategies for interpreting terms and concepts which do not exist in the target language. The course explores different methods of researching unfamiliar terminology and various options for dealing with this interpreting challenge. Coursework includes research techniques and principles for intrepreting unfamiliar terminology in an ethical and responsible manner. Students will research and build a glossary for a specialized interpreting encounter. (Prerequisites: TRIN 1031 and consent of instructor). (1 C).

TRIN 2022   Intermediate Skills of Interpreting
In this course students will begin practicing interpreting. The course refines skills in consecutive interpreting and definitions of accuracy. Ethical situations and the Standards of Practice for the field will be explored through role plays and discussions. Principles of sight translation will also be introduced. (Prerequisites: TRIN 2020, and consent of instructor). (4 C).

TRIN 2023   Advanced Skills of Interpreting
This course is designed to help students prepare for certification skills tests and professional practice. Simultaneous interpreting will be practiced for up to 20 minutes at 140 words per minute. Error analyses will identify areas for growth in consecutive interpreting and sight translation. Students will analyze ethical practices through role plays and discussion. (Prerequisites: TRIN 2020, TRIN 2022, and consent of instructor.

TRIN 2035   Role of the Interpreter in Education
This course focuses on the role of the interpreter in education. It covers topics such as the role of the interpreter in diagnostic testing, interpreting for young children, and ethical conflicts and challanges to the role of the interpreter that are unique to educational settings. Students will also explore the role of the interpreter for paraprofessionals and cultural liaisons who are employed with dual-roles. (Prerequisites: TRIN 2023 or concurrent enrollment). (1 C).

TRIN 2036   Role of the Interpreter in Medicine
This course focuses on the role of the interpreter in medical settings and covers topics such as the role of the interpreter when working as a member of a medical team. Students will practice transparently role-shifting and explore the boundaries and

challenges of people working in dual-role positions. This course will discuss and role-play situations which impact the role of the interpreter in medical settings. (Prerequisites: TRIN 2023 or concurrent enrollment). (1 C).

VETERINARY TECH

VT 1010   Veterinary Medical Terminology and Anatomy
This course will introduce the building of medical words including prefixes, suffixes, and combining forms of commonly used terminology in the veterinary medical field.. Word part definitions, abbreviations, spelling, and pronunciation, along with a basic knowledge of word construction are taught. Emphasis is on the introduction to structure and function of the anatomical systems of common domestic animals. The anatomy of the digestive, skeletal, dermal, and neurological systems will be emphasized. (Prerequisites: College-level reading, writing and math skills. Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C/2 lect, 1 lab).

VT 1110   Introduction to Animal Health Technology
This course introduces the student to the profession of veterinary science and the roles of the members of the veterinary health care team. Topcis of the course include veterinary law and ethics, career opportunities, professionalism, occupational safety, the role of animals in society, human-animal bonds, pet loss and euthanasia. Recommended Entry Skills: High school diploma or GED. (Prerequisites: Appropriate RCTC placement test score to test into READ 0900). (3 C/3 lect, 0 lab).

VT 1220   Small Animal Nursing Techniques I
This course will introduce concepts of hospital animal care and record maintenance. Techniques emphasized will include history taking, initial physical examination, bathing, grooming, nail trimming, dermatological examination, application of topical medications, animal restraint, preventive medicine and proper collection of urine and feces. This course focuses on handling and restraint as well as basic administration of medication skills. (Prerequisites: Grade of C or better in all required previous VT courses and required general education classes). (3 C).

VT 1410   Veterinary Surgical Nursing and Anesthesia
This course is designed to give students a foundation in the principles of routine veterinary surgical assisting. Emphasis will include instrumentation, aseptic technique, surgical support equipment, proficiency in the proper preparation of the operating room and general nursing care. The course will also cover basic anesthetic principles and monitoring. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (2 C).

VT 1510   Veterinary Office Procedures I
This course introduces common business procedures used in veterinary practice. Includes bill collection, appointment scheduling, telephone techniques, record keeping, merchandising, and supervision of employees. Includes follow-up and discharge procedures on filing and record retention and using the computer in veterinary medicine. Provides an overview of veterinary practice management including veterinary marketing, facility design, staff responsibilities, interoffice communications and public relation techniques Topics include advanced office procedures with emphasis on client relations and education, inventory management, leadership skills, and state and federal regulations governing veterinary practices and computer applications in Veterinary medicine. (Prerequisites: Grade of C or better in all required previous VT coursework and required general education requirements). (3 C/2 lect, 1 lab).

VT 1610   Fundamentals of Diagnostic Imaging
This is a lecture and laboratory course introducing the practical and theoretical aspects of diagnostic imaging in veterinary medicine. Topic areas may include: basic principles of x-ray physics, radiation safety, radiographic equipment and accessories, processing radiographs, identification and storage of radiographic film, patient processing, and legal requirements. (Prererquisites: Grade of C or better in VT 1220, 1410, 1510, 1710, 1900, 2020, and 2910). (3 C/1 lect, 2 lab).

VT 1710   Introduction to Veterinary Technology Field Experience
Students participate as a Veterinary Staff member in a part -time, four-six week off-campus learning experiences in business, industry, and/or the public sector. The student is involved in the day-to-day work of the facility, including restraint and handling of animals, office procedures, clinical laboratory techniques, and surgery preparation. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (2 C).

VT 1810   Parasitology
This course will introduce the student to the clinical laboratory, microscopes and other equipment, and basic laboratory procedures will be emphasized. Fecal identification techniques, life cycles, nomenclature, modes of transmission, geographical distribution and diseases associated with external parasites of small animals, horses and cattle will be discussed. Internal parasites of domestic animals will be taught and identified in this course. (Prerequisites: Grade of C or better in all required previous VT courses and required general education classes). (2 C).

VT 1900   Small Animal Care and Management

This course will introduce concepts of animal care and kennel management. This course focuses on handling and restraint, safety, regulations and equipment of animal facilities, basic behavior concepts, and kennel management of domestic animals. The course aims to distinguish normal small animal behavior and animal husbandry. Incorporation of hands on animal care duties and teamwork will be performed into this course. (Prerequisites: Grade of C or better in all previous required VT coursework and general education requirements). (2 C/1 lect, 1 lab).

VT 2020   Comparative Veterinary Anatomy and Physiology
This course provides additional detail in anatomy and physiology of companion and farm animal species. Focuses are on the anatomical structures and basic physiological body function differences between selected species. Additional topics include the interrelationships between body systems such as respiratory, cardiovascular, urogenital, endocrine, digestive, nervous and reproductive systems. Other subjects include organs of special sense anatomy and anatomy and physiology of bones, muscles, and skin, metabolism and digestion, acid-base balance, endocrinology, and reproductive endocrinology and unique characteristics of common domestic species. Lab includes skeletons and cadaver specimens. (Prerequisites: Grade of C or better in all required previous VT courses and general education classes). (2 C/1 lect, 1 lab).

VT 2230   Small Animal Nursing Techniques II
This course is a continuation of the nursing skills and techniques begun in Small Animal Nursing Techniques I. This course will introduce concepts of a specialized physical examination, intravenous injection techniques, and preventive medicine. This course provides for practical experience in performing specific skills involved with animal nursing. (Prerequisites: Grade of C or better in all previous required VT coursework and general education requirements). (3 C).

VT 2240   Small Animal Nursing Techniques III
This course will introduce concepts of first aid, care for critically ill patients, emergency nursing, oncology, cardiology, neurology, and collection of bone marrow aspirates. This course provides for practical experience in performing specific skills involved with animal nursing and builds on knowledge gained in previous courses. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (2 C).

VT 2250   Large Animal Procedures
This course introduces the livestock and equine industry and the various species of large animal livestock. Includes livestock terminology, breeds, production systems, basic management practices, preventive medicine, lameness examinations and conditions, necropsy procedures and animal products and by-products. Techniques covered will include restraint, behavior, and medical and surgical nursing procedures of large animals and equine. (Prerequisites: Grade of C or better in all required previous coursework and general education requirements). (3 C/1 lect, 2 lab).

VT 2260   Veterinary Surgical Nursing II
This course will cover pre-surgery preparation and post surgical care of small animals, principles of surgery, aseptic technique, fluid therapy, and surgical assisting through practical experience. The course applies basic utilization of anesthetic agents, the use and operation of allied machines, monitoring and care of the anesthetized animal patient, and the pre-operative considerations and duties for anesthesia. Other topics include performance of routine veterinary dental prophylactic techniques, emergency procedures, and control of post-surgical pain. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (2 C). (2 C/1 lect, 1 lab).

VT 2270   Laboratory Animal Care and Management
This course introduces the care and management of common laboratory species, avian reptile, and exotic pets. Discussion will include husbandry, animal behavior, nutrition identification, restraint, common clinical conditions, nursing procedures, and preventive health care. Presents the fields of laboratory research and zoological medicine. Exotic and laboratory animals are introduced to allow hands-on experiences. Field trips included. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (3 C/1 lect, 2 lab).

VT 2620   Applied Diagnostic Imaging
This course is a continuation of VT 1610, Fundamentals of Diagnostic Imagining. Focus of the course will be on the practical application of proper positioning to obtain quality radiographs. In addition to routine radiography, topics include: trouble shooting radiographic quality, use of contrast media, sonography, dental radiography, special imaging techniques and development of a radiographic technique charts. (Prerequisites: Grade of C or better in VT 1610, 2230, 2250, 2260, and 2920. May be taken concurrently with VT 2250 or 2260). (1 C/0 lect, 2 lab).

VT 2720   Veterinary Technician Field Experience
Students participate as Veterinary Technicians in a full-time 8-week off campus learning experience in business, industry and/or the public sector. The student is involved in the day-to-day work of the facility, including restraint and handling of animals, office procedures, clinical laboratory techniques, radiology, and surgery preparation. (Prerequisites: All subsequent Veterinary Technology coursework; grade of C or better in all required previous VT courses). (4 C/4 internship credits).

VT 2820   Clinical Lab Techniques I

This is an advanced clinical laboratory course for veterinary technicians. Students will gain the knowledge and skills necessary to perform the various types of tests that are usually done in the clinical laboratory of a veterinary hospital. Topics will include; blood collection, CBC, WBC, blood film evaluation, leukocyte evaluation, coagulation testing, urinalysis, blood chemistries and blood parasites. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (3 C/1 lect, 2 lab).

VT 2830   Clinical Lab Techniques II
This course is the summation of the laboratory skills and techniques needed by the veterinary technician. Additionally, application of microbiological and cytology, serology testing and semen analysis techniques utilized in veterinary practice is covered. This course includes a hands-on situation covering all laboratory procedures. (Prerequisites: Grade of C or better in all required previous VT courses and general education classes). (3 C/2 lect, 1 lab).

VT 2900   Kennel Management and Nutrition
This course will introduce principles of nutrition and advanced animal care duties. This course will provide further opportunities for kennel management of domestic animals while incorporating knowledge of proper nutrition and feeding of the dog and cat. Hands on animal care duties and teamwork and emphasized throughout the course. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (2 C/1 lect, 1 lab).

VT 2910   Pharmacology and Disease for Veterinary Technicians
This course provides background in veterinary pharmacologic principles and management. Topics of focus include: common drug terminology, classifications of drugs, such as antibiotics and anesthetics, and mechanisms of drug action, the diseases common to our domestic species along with the pharmacological agents that are used to treat them Basic skills and management of the veterinary pharmacy are also covered. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: High School diploma or GED Grade of C or better (high school or college level within the last five years) in the following courses: Biology with a lab, Chemistry with a lab, Elementary Algebra of equivalent Minimum one-year high school typing/keyboarding skills. (Prerequisites: Admission into the Veterinary Technician program. Grade of C or better in MATH 1025). (3 C/3 lect, 0 lab).

VT 2920   Small Animal Disease and Diagnostics
This course surveys infectious and noninfectious diseases of domestic animals. The content includes aspects of disease such as etiology, clinical signs, treatment, prevention, and pathology. Animal health care and preventative disease procedures will be implemented. Principles of the disease process, epidemiology, zoonoses, public health significance as well as behavior management will be emphasized. (Prerequisites: Admission to the Veterinary Technology program; grade of C or better in all required previous VT courses). (2 C/1 lect, 1 lab).

VT 2930   Applied Pharmacology and Nutrition
This course will introduce the regulations controlling the use of biological and pharmaceuticals in the management of animal disease. Additional topics will include rationale and precautions for therapeutic use of pharmaceutical with an applied approach. Incorporation of mentoring techniques for first year students will be added to other husbandry techniques. Emphasis will be on teamwork, communication, preventive health care and health problem assessments, and clinical nutrition. This course will include advanced animal nutrition and the concepts of clinical nutrition. Dietary management of various nutritional diseases for small animals will be explored (Prerequisites: All subsequent Veterinary Technology coursework; grade of C or better in all required previous VT courses). (2 C/1 lect, 1 lab).

WELD 1001   Blueprint Reading, Process Theory and Safety
The students will work on an overview of blueprint reading including the understanding of notes, specifications, and identification of welding symbols. An introduction of processes used in fabrication shops will be outlined. Students will be introduced to the different processes of welding and the welding trade. The students will cover bonding, fusion, proper heat usage, heat distortion and its effect on base metal. Students will learn electrical current and voltage circuits from welding equipment to base metal, reverse current and voltage along with AC welding. Students will make minor repair to welding equipment and tools in the trade. Major components stressed are safe practices used in welding profession, safe usage of welding equipment, PPE (personal protection equipment) and how to eliminate unsafe conditions. (Prerequisite: Math 1015 or test into MATH 0098). (3 C/1 lec,2 lab).

WELD 1002   SMAW: Shielded Metal Arc Welding
Student will learn fundamentals of arc welding (stick welding) and its applications. Student will learn to set up work area, adjust machine and learn terminology associated with setting. The art of striking an arc, rod selection, controlling the arc and controlling and weld pool will be part of the course. Student will understand various weld joints with different metal types and thickness. Student will also understand what is an acceptable and unacceptable welding. (Prerequisite: MATH 1015 or test into MATH 0098). (3 C/0 lect/3 lab).

WELD 1003   Oxy-fuel Welding, Cutting and Brazing
The course is designed to show the student the safety of welding equipment, tank storage and handling. Students will learn the proper way to open, close and maintain tanks, regulators, gauges and/or flow meters. How to safely set-up and create the proper

mixture for a neutral flame and understand the importance of it. Welding, cutting, and brazing will be demonstrated in the flat position. (Prerequisite: MATH 1015 or test into MATH 0098). (1 C/0 lect/1 Lab).

WELD 1004   GMAW: Gas Metal Arc Welding

In this course the students will learn to power up machines, setup machines and perform various welds in different positions. The student will learn the names and purposes of various parts of the machine, setup, adjustment and their repair. Student will demonstrate different settings for electrode and thickness of material (including various types of metal). Starting, stopping and correctly continuing a weld; welding pipe and square tubing, stopping halfway or non-stop. Students will know the three different types of GMAW transfer (short circuit, globular and spray transfer) and the appropriate gasses. Students will learn the difference between acceptable or unacceptable welds under various conditions. Students will learn to shut off machine and proper storage of materials. (Prerequisite: MATH 1015 or test into MATH 0098). (3 C/0 lect/3 Lab).

WELD 1005   GTAW: Gas Tungsten Arc Welding (TIG)

This course will teach the different types of Tungsten Inert Gas welding. The Student will learn proper set up, usage and shut down of equipment. Student will learn proper selection of electrodes, gases and equipment needed for welds. Student will demonstrate puddle control, bead with filler usage and various joint welds with different metal alloys. (Prerequisite: MATH 1015 or test into MATH 0098). (3 C/0 Lect, 3 Lab).

WELD 1006   Welding CO-OP

This course is designed to provide the student with a purposeful occupational experience in the welding and fabrication field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. One credit of co-op is equal to 40 hours of on-the-job training. (Prerequisites: MATH 1015 or test into MATH 0098; Co-Requisites: WELD 1001, 1002, 1003, 1004, and 1005). (3 C).

Faculty and Administration Credentials at RCTC

Arneson, Shelli
Human Services

| BA | Sociology, General | Simpson College |
| MS | Health Science | Mankato State University |

Arroyave, Lillyam
Spanish

| BS | Psychology | Universidad del Norte Barranquilla, Columbia S.A. |
| MA | Spanish Language/Literature | University of Iowa |

Atwood, David
Mathematics

| BS | Mathematics | University of New York - Plattsburg |
| MS | Mathematics: Statistics Option | Mankato State University |

Baker, Mary
Nursing Assistant

| AA | Nursing | Rochester Community and Technical College |

Baldus, Donald
Mathematics

| BS | Mathematics | Iowa State University |
| MS | Electrical and Computer Engineering | University of Iowa |

Banker, Robert
Art

AAS	Architectural Technology	Alfred State College
BFA	Fine/Studio Arts	Alfred University - Alfred, New York
MFA	Art	University of Minnesota

Beck, Barbara
Biology

| BA | Biology | Carleton College |
| PhD | Genetics | University of Washington |

Beighley, Warren
Heating, Venting and Air Conditioning

| Diploma | Building Utilities Mechanic | Rochester Community and Technical College |

Bein, Stephen
Philosophy

| PhD | Philosophy | University of Hawaii- Manoa |

Benson, Pamela
Computer Aided Drafting

| MS | Technology Management | Bemidji State University |

Blattner, Charles
Music

AA	Music	Rochester Community and Technical College
BS	Music Education	University of Minnesota
MM	Music Education	Indiana University

Boyum, Ginny
Dean of Academic Affairs

BSN	Nursing	Winona State University
MS	Counselor Education	Winona State University
PhD	Organizational Leadership, Policy, and Development	University of Minnesota

Brown, Teresa
Chemistry

| BS | Chemistry, General | South Dakota State University |
| PhD | Chemistry | South Dakota State University |

Bruce, Jennifer
Library

AA	Associate of Arts	Central Lakes College
BA	Psychology/Information Media	Saint Cloud State University
MLS	Library Science	University of Wisconsin - Madison

Buchl, John
Mathematics

| BS ED | Mathematics | University of North Dakota |
| MEd | Mathematics | University of North Dakota |

Buck, Kristin
English

| BA | English Language/Literature, General | Suny at Stony Brook - Stony Brook, NY |
| MA | English Language/Literature, General | University of Delaware |

Buns, Rosemary
Nursing

| BS | Nursing | Mankato State University |
| MS | Nursing | South Dakota State University |

Bushaw, Christine
Health Information

AAS	HIT	Rochester Community and Technical College
BS	Business Management	Cardinal Stritch University
MEd	Adult Education	University of Minnesota

Casper, Gerald
Speech

| BS | Communication/Theatre | Fort Hays State University |
| MS | Communication/Theatre | Fort Hays State University |

Casper, Ruth
Psychology

BA	Psychology and Communication	Fort Hays State University
MS	Psychology (Clinical)	Fort Hays State University
PhD	Psychology (Social)	University of Nebraska - Lincoln

Christie, Julie
Equine Science

| BS | Biochemistry | Mount Allison University, Canada |
| MS | Animal Science/Equine Science | University of Prince Edward Island, Canada |

Clement, Annie
Speech

| BS | Communication Studies and Theatre | South Dakota State University |
| MS | Communication Studies and Journalism | South Dakota State University |

Cochran, Michelle
Reading

BA	Art Education	Saint Norbert College
BA	Art	Saint Norbert College
MEd	Teaching and Learning	Saint Mary's University - Winona

Cole, Steven
Biology

AA		Austin Community College
BA	Biology/Chemistry	Westmar College
MA	Biology, General	University of South Dakota - Vermillion
MNS	Biology	University of South Dakota - Vermillion

Condit, Kevin
Art

BS	Art Teacher Education	Moorhead State University
MA	Studio Arts, Graphic Design	Mankato State University
MFA	Studio Arts, Interactive Design	University of Minnesota - Twin Cities

Costello, Patrick
English

| BA | English | Saint Mary's University |
| MA | English | Winona State University |

Crawford, Bonnie
Dental Assistant

AA	General	Rochester Community and Technical College

Cronin, Leonard
Accounting

AA		Central Lakes College
BS	Accounting	Saint Cloud State University
MBA	Business Admin/Mgmt, Gen	Winona State University

Dahl, Kathleen
English

BA	English/Literature	St. Olaf College
MA	English/Literature	Loyola University of Chicago
MFA	Creative Nonfiction	Hamline University

Dennison, Mary
Library

BA	European History	University of California, Los Angeles
MLS	Library Science	University of Michigan
MS	Special Education	Winona State University

Dimian, Atef
Political Science

BA	Political Science, Gen	University of Minnesota - Duluth
MA	Political Science, Gen	Mankato State University

Dobbe, Kevin
Music

BM	Music	University of Wisconsin - Oshkosh
MM	Master of Music	Kent State University, Kent, Ohio
PhD	Music Education	University of Minnesota

Egenberger, Catherine
Art

BS	Art	Saint Cloud State University
MA	Art History	University of Massachusetts - Amherst

Eickhoff, Jennifer
Nursing

AA	Nursing	Rochester Community and Technical College
BS	Nursing	Winona State University
MS	Nurse Educator	Winona State University

Ekstam, Robert
Counseling

BS	Business Administration	Minnesota State University Mankato
BS	Social Studies Education	Minnesota State University Mankato
MEd	Vocational Education and Counseling	Colorado State University

Endel, Sarah
Mathematics

BS	Secondary Math Education	Missouri State University
MS	Mathematics	University of Central Missouri

Engelmeyer, Renee
Chief Human Resources Officer

BA	Sociology, Law Option	University of Minnesota
MA	Organizational Management	Concordia University, St. Paul, MN

Ewen, Barbara
Nursing

AA	Nursing	Rochester Community and Technical College
BS	Nursing	Moorhead State University
MS	Nursing	University of Minnesota

Fiegel, Coralie
Business Administrative Technology

BS	Business Education	Mankato State University
MEd	Adult Education	University of Minnesota

Finseth, Onalee
Nursing

AS	Nursing	Rochester Community and Technical College
BSN	Nursing	Augsburg College
MSN	Nursing Education	Viterbo University

Flaig Prinsen, Bonnie
English

BA	English	Mankato State University
MA	English	Mankato State University

Frame, Brenda
Mathematics

BA	Mathematics	St. Olaf College
EdD	Mathematics Education	University of Montana
MEd	Mathematics Education	University of Minnesota - Minneapolis

Frank, Matthew
Sociology

AA	Liberal Arts and Science	Rochester Community and Technical College
AS	Liberal Studies	Rochester Community and Technical College
BA	Sociology	Winona State University
MS	Sociology: Corrections	Mankato State University

Fritz, Barbara
Nursing

AA		Anoka-Ramsey Community College
BA	Biology	St. Cloud State University
MA	Biology, Molecular, Cellular, and Organismal	St. Cloud State University

Froelich, Daniel
Mathematics

BS	Mathematics	Minnesota State University, Mankato
MS	Mathematics: Statistics Option	Minnesota State University, Mankato

Fruth-Dugstad, Robin
Horticulture

BS	Agriculture, General	University of Wisconsin - River Falls
MS	Horticultural Science	Iowa State University

Fuller, Bret
English

BA	English	Eastern Illinois University
MA	English	Eastern Illinois University
MS	Educational Administration	Eastern Illinois University
PhD	English	University of Mississippi

Gay, Merry Beth
Director of Nursing

AA	Liberal Arts	Bethel College
AS	Nursing	Anoka Ramsey Community College
BS	Nursing	Metropolitan State College - Denver
MS	Nursing	University of Colorado Health Science Center

Gernand, Max
Automobile Mechanics

BS	Industrial Education	University of Minnesota

Gravenish, Rae
Reading

BA	Educ Hearing Impaired, Elementary Educ	Flagler College
MA	Education (Reading Education)	San Diego State University

Gresbrink, Scott
Sociology

BS	Sociology and Social Studies	University of Minnesota
MA	Sociology: General	Mankato State University

Gross, James
Vice President of Academic Affairs

BSIE	Industrial Engineering	Purdue University
MSIE	Industrial Engineering	Purdue University
PhD	Decision Science	University of Illinois

Guenette, Lynn
Sociology

BS	Corrections	Minnesota State University Mankato
BST	Secondary Social Studies	Minnesota State University Mankato
MA	Sociology	Minnesota State University Mankato

Hafar, Matthew
Music

BA	Music and Russian Studies	St. Olaf College
MA	Music Performance	University of Iowa
PhD	Music Theory	University of Iowa

Halverson-Wente, Lori
Speech

BA	Speech Communication and Political Science	University of Minnesota, Morris
MA	Communication Studies	Northern Illinois University

Hammill, Tara
Business Administrative Technology

AAS	Medical Secretary	Rochester Community and Technical College
BA	Business Technology, Leadership and Education	Metropolitan State University

Hanson, Katherine
English

BA	English; History and secondary Education minor	St. Olaf College
MA	English (British and American Literature)	Marquette University
PhD	English	Marquette University

Heim de Bera, Beth
English

BA	Journalism	University of Minnesota
MA	English	University of Saint Thomas

Henderson, Rebecca
Nursing

BA	Biology	Concordia College - Moorhead
BSN	Nursing	Jamestown College
MSN	Nursing	Winona State University

High, Anne
Dental Hygiene

BS	Dental Hygiene Education	University of Minnesota - Minneapolis
MS	Educational Administration	TriCollege University

Hill, Theresa
Chemistry

BS	Chemistry	University of North Dakota
PhD	Chemistry	University of North Dakota

Holland, Jonathon
Equine Science

AAS	Equine Science	University of Minnesota, Crookston
BS	Animal Industries Management	University of Minnesota, Crookston

Hosier, Thomas
Physical Education

BA	Commun, General	De Pauw University
MS	Physical Education	Indiana University

Hoth, Jean
Sociology

BA	Political Science	University of Northern Iowa
MA	Sociology	University of Northern Iowa

Huelsbeck, Simon
Art

BFA	Painting	Minneapolis College of Art and Design
MFA	Painting	Pennsylvania Academy of the Fine Arts

Hust, Nancy
Practical Nursing

AA	Nursing	
BSN	Nursing	Winona State University
MSN	Nursing	

Israelson, Chad
History

BA	History	University of Wisconsin - La Crosse
BA	Philosophy	University of Wisconsin - La Crosse
MA	History	University of Nebraska - Lincoln

Jacobsen, Jeffrey
Art

BFA	Art	University of Wisconsin Oshkosh
MFA	Art	University of Wisconsin Milwaukee

Jadin, Jason
Chemistry

BS	Chemistry	University of Wisconsin - Stevens Point
MS	Chemistry	University of Minnesota

Jansen, Susan
Nursing

BA	Nursing	College of St. Scholastica - Duluth
MSN	Nursing	University of Minnesota

Juenemann, Mary
Health Information

BA	Health Information Administration	College of St. Scholastica
MS	Educational Leaership	Minnesota State University - Moorhead
MS	Educational Leadership	Minnesota State University - Moorhead

Juenemann, Steven
English, Philosophy

BA	English and Humanities	College of St. Scholastica
MA	English	South Dakota State University
MFA	Creative Writing	Moorhead State University

Keller, Vicky
Occupational Skills

AA	Secretarial	Rochester Community and Technical College
BS	Elementary Education/Early Childhood Minor	Winona State University
MA	Developmental Disabilities	Saint Mary's College

Kennedy, Betsy
Nursing

BSN	Nursing	Marquette University
MSN	Nursing	Boston University

Kerr, Harry
Criminal Justice

AA	Law (LL.B., J.D.)	
AA	General Studies	
BA	Criminal Justice/Law Enforcement Administration	

Kerr, Thomas
Psychology

AA	General Studies	Diablo Valley College
BA	Psychology	California State University - Chico
MA	Social Psychology	San Francisco State University

Kinion, Paul
Mathematics

BA	Mathematics	University of Minnesota - Morris
MS	Mathematics	Oregon State University - Corvallis

Kotagal, Nirmala
Dean of Academic Affairs

BSc	Zoology	University of Delhi, India
Mpil	Zoology	Aligarh Muslim University, India
MSc	Zoology	University of Delhi, India
PhD	Zoology	Aligarh Muslim University

Krieger, Terry
Mathematics

BS	Mathematics	Bemidji State University
BS	Mathematics (Teaching)	Bemidji State University
MA	Mathematics	Mankato State University

Kruger, Jane
Surgical Technology

AA	Nursing	University of South Dakota
BS	Nursing	Bethel University

LaForge, Joseph
Mathematics

BS	Economics	Northern Michigan University
MA	Economics	University of Iowa
MS	Mathematics	University of Iowa

LaPlante, Brian
Physical Education

BS	Physical Education	Winona State University
MS	Exercise/Sport Sci - PE Teaching	University of Wisconsin - La Crosse

Laughland, Gregory
Computer Aided Drafting

BS	Mechanical Engineering/Mech Tech	University of Illinois at Urbana - Champaign

Lee, Tammy
Business

AA		Bethany Lutheran College
BS	Business Admin/Mgmt	Mankato State University
DEd	Education Policy and Administration	University of Minnesota
MBA	Business Admin/Mgmt	Mankato State University

Lepper, Jeffrey
English

BA	English	University of Wisconsin, Eau Claire
MFA	Creative Writing	University Of Idaho

Lexvold, David
Building Utilities

Diploma	Building Utilities	Rochester Community and Technical College

MacLeod, David
Automobile Mechanics

Diploma	Auto Mechanics	Rochester Community and Technical College

Mahlberg, Jamie
Psychology

BA	Psychology	Loras College
MA	Psychology	University of Northern Iowa

Martinez, Jessie
Economics

BBA	Economics	Saginaw Valley State University
MA	Economics	Central Michigan University

McCormick, James
English

BA	English/German	University of Wisconsin - Madison
MA	English	University of Wisconsin - Madison
PhD	English	Western Michigan University

Meier, Jason
English

BA	English/Spanish	University of Minnesota - Duluth
MA	English Education	University of Minnesota - Duluth

Meyer, Thomas
Economics

BS	Economics	United States Air Force Academy
MA	Economics	University of Oklahoma
MA	Human Relations	University of Oklahoma

Milbrandt, Rod
Physics

BA	Physics/Mathematics	Saint Olaf College
MS	Medical Physics	University of Wisconsin - Madison
MS	Physics	University of Wisconsin - Madison
PhD	Physics	University of Wisconsin - Madison

Mohawk, Randy
Law Enforcement

AAS		Alexandria Community & Technical College
BS	Law Enforcement	Metropolitan State University
MS	Criminal Justice	St. Cloud State University

Mollberg, Barbara
Dean of Academic Affairs

BA	Speech Communication	University of North Dakota
EdD	Educational Leadership	University of St. Thomas
MA	Speech Communication	University of North Dakota

Musgjerd, Jean
Health

BS	Physical Education	Bemidji State University
MS	Physical Education: Sport Administration	Bemidji State University

Mutschelknaus, John
English

BA	English	Kent State University
Edd	Leadership	Saint Mary's University
MA	English	Kent State University

Nerud, Brenda
Veterinary Technology

AAS	Animal Health Technology	University of Minnesota

O'Bryan, Allan
Accounting

BBA	Accounting and Management Science, General	Evangel College
MAcc	Masters of Accountancy	Missouri State University

O'Kane, Gail
Interim President

BA	Political Science	Boston College
PhD	Neuroscience	Massachusettes Institute of Technology

Olson, ViAnn
Mathematics

BS	Mathematics Education	Moorhead State University
EdD	Mathematics Education	Curtin University of Technology - Perth, Australia
MS	Mathematics Education	St. Cloud State University

O'Neill, Timothy
Philosophy

BS	Philosophy	Eastern Michigan University
MA	Philosophy	Michigan State University

Pacyna, Patricia
Health Unit Coordinator

BA	Organizational Management and Communication	Concordia University - St. Paul

Paynter, Robin
Dental Hygiene

BS	Dental Hygiene	University of South Dakota
MA	Human and Health Services Administration	Saint Mary's University

Peterson, Richard
Intensive Care Paramedic

AS	Intensive Care Paramedic	Rochester Community and Technical College

Piens, Dana
Mathematics

AA	General	Rochester Community and Technical College
BA	Mathematics	University of Minnesota

Pollock, Diane
Library

BS	Zoology	University of Wisconsin - Madison
MLIS	Library Science	University of Wisconsin - Milwaukee

Pyfferoen, Michelle
Dean of Academic Affairs

AS	Liberal Art and Science	Rochester Community and Technical College
BA	Business Administration	Winona State University
MBA	Business Administration	Winona State University

Rager, Randy
Physical Education

BA	Elementary Education	University of Minnesota-Morris
MS	Sports Management	Saint Cloud State University
MS	Physical Education	Saint Cloud State University

Ramirez, Jessica
Nursing

BS	Nursing	Minnesota State University Mankato
MS	Nursing Education	Minnesota State University Mankato

Reif, Marjorie
Mathematics

BS	Medicine - Physician Assistant	University of Iowa
BS	Liberal Arts	University of Iowa
MEd	Master of Education - Mathematics Education	University of Minnesota

Renken, Randal
Biology

AS	Liberal Studies	Rochester Community and Technical College
BS	Biology: Allied Health	Winona State University
MPT	Physical Therapy	Mayo School of Health - Related Sciences

Robinson, Bonnie
English

BA	English	University of North Dakota
MA	English	University of North Dakota

Rostvold, Anthony
Art

AS	Digital Arts: Multimedia Emphasis	Rochester Community and Technical College
BFA	Graphic Design	University of Minnesota - Duluth
MFA	Art - Graphic Design	University of Minnesota - Duluth

Rowley, Kimberly
Veterinary Technology

BA	Biology	Saint Mary's University
DVM	Veterinary Medicine	University of Minnesota - Twin Cities

Roy, Rashmi
English

BA	English	Magadh University
MA	English	Magadh University
PhD	English	Mahatma Gandhi KV University

Rubin, Jennifer
Biology

BA	Biology	St. Olaf College
MS	Plant Biology	University of Illinois
PhD	Plant Biology	University of Illinois

Ruemping, Priscilla
Mathematics

AA	Liberal Arts	Rochester Community and Technical College
BA	Mathematics	Winona State University
MEd	Adult Education	University of Minnesota

Sahs, Scott
Chief Information Officer

BA	Art and Design, Telecommunications (minor)	Iowa State University
MS	Computer Information Systems	University of Phoenix
MSpED	Instructional Design for Online Learning	Capella University

Sanborn, Robert
English

MA	English Education	Ball State University
PhD	English Education	Ball State University

Sands, Amy
Practical Nursing

BA	Nursing	Luther College
MSN	Nursing Education	University of Phoenix

Schmall, Steve
Vice President Finance and Facilities

BA	Finance	Loras College
BA	Accounting	Loras College

Schnaedter, Mark
English

BA	English Education	Virginia Commonwealth University
MFA	Writing	Western Michigan University

Scholer, Sheryl
English

BS	English Education	Minnesota State University - Mankato
MEd	Adult/Cont Teacher Ed	University of Minnesota

Schultz, Carol
Dental Assistant

AA	Associates of Arts Degree	Rochester Community and Technical College
BA	Professional Studies	Winona State University

Schwanke, Mary
Dental Hygiene

AS	Dental Hygienist	Minnesota State University - Mankato
BA	Organizational Management and Communication	Concordia University
BS	Dental Hygienist	Minnesota State University - Mankato
MA	Organizational Management	Concordia University

Shelerud, Mary
Nursing

BS	Nursing	St. Xavier University
MSN	Nursing Education	Viterbo University

Shen, Fan
English

BA	English Education	Lanzhou University - China
MA	English Education	University of Nebraska
PhD	English Education	Marquette University

Sievers, John
English

BA	English Education	University of Northern Iowa
MA	English	University of Minnesota
PhD	English	University of Minnesota

Sklenicka, Heather
Chemistry

BS	Chemistry	Drake University
PhD	Chemistry	University of Minnesota

Soltau, Thomas
Building Utilities

Diploma	Electronic Engineering Technician	Rochester State Junior College

Spitzmiller, Betty
English

AB	English	University of Missouri-Columbia
MA	English	University of Missouri-Columbia
PhD	English	University of Minnesota-Twin Cities

Stanchfield, Mark
Business Administrative Technology

BS	Business Education	Minnesota State University - Mankato

Steele, Brian
Art

BFA	Photography	University of Arizona
MFA	Studio Art (Photography)	University of New Mexico

Stegge, James
Biology

BS	Biology	Briar Cliff College
MA	Biology	University of South Dakota

Szucs, Suzanne
Art

BFA	Art Photography	San Francisco Art Institute
MFA	Art Photography	School of the Art Institute of Chicago

Tacinelli, John
Earth Science

AS	Science	Dutchess Community College
BS	Geology	SUNY Stony Brook
MA	Geology	Binghamton University
PhD	Geology	University of Minnesota

Theisen, Paula
Accounting

BA	Organizational Management and Communications	Concordia University
Diploma	Accountant, Junior	Rochester Community and Technical College
MA	Organizational Management	Concordia University

Tjossem, Jaime
Biology

BS	Biology	University of Wisconsin - Eau Claire
MS	Biology	University of Wisconsin - Eau Claire

Tweeten, Taresa
Speech

BA	Speech Communication and Theatre	Gustavus Adolphus College
MA	Speech Communication	University of North Carolina - Greensboro

Vedamuthu, Daniel
Art

BFA	Art	University of Wisconsin, Stout
MA	Art	Minnesota State University,, Mankato

Vikse, Elizabeth
Mathematics

AA	Pre-Education	Rochester Community College
BS	Mathematics Education	Winona State University
BS	Statistics	Winona State University
MS	Mathematics	Michigan State University

Vrieze, Nikka
English

BA	English	University of Regina
MA	English	University of South Dakota

Wagenson, Mary Jane
Physical Education

BS	Physical Education/Health	Winona State University
MS	Sports Administration	University of Wisconsin La Crosse

Wang, Xiaomin
Mathematics

BS	Mathematical Sciences	East China Normal University
MS	Statistics	Shanghai University of Finance and Economics
PhD	Mathematics	New Mexico State University

West, Daniel
Speech

BA	Communications	Bluffton College
MA	Rhetoric and Communication	Kent State University

Whitfield, Pamela
English

BA	English	St. Andrews Presbyterian College
Graduate Cert	Women's & Gender Studies	University of North Carolina
MA	English	University of North Carolina - Greensboro
PhD	Composition & Rhetoric	University of North Carolina - Greensboro

Williamson, Karen
Accounting

BS	Business Education	Eastern Illinois University
MA	Business Education	University of Iowa

Willihnganz, Michelle
Nursing

AA	Liberal Arts	
BS	Nursing	Winona State University
MS	Nursing	University of Minnesota

Wilson, Shirley
Business Administrative Technology

BA	Business Technology, Leadership and Education	Metropolitan State University
Diploma	Chiropractic	Northwestern Chiropractic College

Wirt, Elizabeth
Nursing

AD	Nursing	Rochester Community and Technical College
BSN	Nursing	Winona State University
MSN	Nursing, Other	Winona State University
MSN	Nursing	Winona State University

Wright, Gregory
Counseling

BA	Sociology	Mankato State University
BS	Social Studies	Mankato State University
MS	Educational Psychology and Counseling	Winona State University

Wright, Karin
Speech

BA	Speech	University of North Dakota
MA	Speech Communication	San Diego State University

Wright-Peterson, Virginia
English

BS	Accounting	University of Minnesota
MA	English Education	University of Minnesota

Yankowiak, Rick
Building Utilities

Diploma	Construction Electrician	Albert Lea Vocational College

York, Stacey
Child Development

AA	Early Childhood Studies	Saddleback College
BS	Child Development/Parent Education	University of Minnesota
MA	Human Development	Pacific Oaks College

Young, Judith
Health Information

BA	Business Education	Augsburg College
MEd	Adult Education	University of Minnesota

Zirbel, Eileen
Surgical Technology

AA	Surgical Technology	North Iowa Area Community College
AA	Accounting	North Iowa Area Community College
Diploma	Surgical Technology	Rochester Area Vocational and Technical Institute
Diploma	Surgical Technology	Rochester Area Vocational and Technical Institute