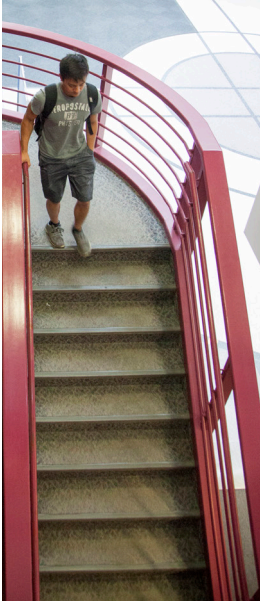


# ACADEMIC CATALOG



**FALL  
2017**



**ROCHESTER**  
COMMUNITY AND TECHNICAL COLLEGE

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## General Information

The provisions of this publication were prepared on the basis of the best information as of the date of publication; however information in this publication may be amended at any time by appropriate action of the faculty, the college administration, the Minnesota State colleges and universities Board, or the Minnesota Legislature.

When such changes occur, every reasonable effort will be made to notify the student body, however, Rochester Community and Technical College reserves the right to change any information, including statement of fees, course offerings and admission and graduation requirements, without notice or obligation. This publication is not a legal document and does not constitute a contract between the College and the user.

The information in this catalog is for use as an academic planning tool and is subject to change at any time. Please consult appropriate departments and offices for final policies, procedures and deadlines. Visit RCTC's website at [www.rctc.edu](http://www.rctc.edu) for up-to-date information.

**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.

## RCTC's Mission, Vision, Values and Outcomes

### Mission

Rochester Community and Technical College provides accessible, affordable, quality learning opportunities to serve a diverse and growing community.

### Vision

Rochester Community and Technical College will be a universal gateway to world class learning opportunities.

### Value Proposition

Improving Student Lives

### College Values and Service Attributes

- **Learner-Centered:** Be approachable and attentive to students' and others' needs
- **Excellence:** Anticipate, create and recognize engaging experiences
- **Respect:** Demonstrate understanding and sensitivity when serving
- **Teamwork:** Collaborate and engage each other to better serve
- **Innovation:** Explore, empower and implement creative ideas to better serve
- **Fun:** Foster a pleasant, personable and enjoyable environment

## Core Outcomes

- **Communication:** Students will read, write, speak and listen professionally.
- **Critical Thinking:** Students will think systematically by integrating skills and using a variety of appropriate resources and methods.
- **Global Awareness/Diversity:** Students will demonstrate understanding of and respect for human diversity through their words and actions.
- **Civic Responsibility:** Students will understand larger social issues, demonstrate social responsibility, and contribute to positive community change through civic engagement.
- **Personal and Professional Accountability:** Students will take ultimate responsibility for achieving their education and personal goals.
- **Aesthetic Response:** Students will make and support personal judgments from an informed perspective.

## Accreditations and Memberships

RCTC is fully accredited by the Higher Learning Commission. RCTC also holds occupationally specific accreditation in a number of its programs.

### What Accreditation Means to You

When you attend an accredited college or university, you can expect:

- **A Quality Education:** Accreditation means that the institution meets standards of quality for faculty, curriculum, administration, library, financial management and student services.
- **Financial Aid Opportunities:** You can only obtain federal financial assistance if the institution has appropriate accreditation from an organization recognized by the United States Department of Education.
- **Credits that Transfer:** If you ever want to transfer your college credits to continue your education, accreditation is an important factor when a college or university is deciding whether to accept transfer credits from your previous school.

## ACCREDITATIONS

- **The Higher Learning Commission**  
230 South LaSalle Street, Suite 7-500  
Chicago, Illinois 60604  
800.621.7440
- **Accreditation Commission for Education in Nursing, Inc. (ACEN)**  
3343 Peachtree Road NE, Suite 850  
Atlanta, GA 30326  
404.975.5000
- **Accreditation Council for Business Schools and Programs (ACBSP)**  
11520 West 119th Street  
Overland Park, KS 66213  
913.339.9356

- **Accredited Review Council on Education in Surgical Technologists and Surgical Assistants (ARC/STSA)**  
6 West Dry Creek Circle, Suite 110  
Littleton, CO 80120  
303.694.9262
- **American Veterinary Medical Association (AVMA)**  
1931 North Meacham Road, Suite 100  
Schaumburg, IL 60173-4360  
800.248.2862
- **Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)**  
233 N. Michigan Ave., 21st Floor  
Chicago, IL 60601-5800  
312.233.1100
- **Commission on Accreditation of Allied Health Education Programs (CAAHEP)**  
25400 US Highway 19 N., Suite 158  
Clearwater, FL 33763  
727.210.2350
- **Commission on Dental Accreditation of the American Dental Association (CODA)**  
211 East Chicago Avenue  
Chicago, Illinois 60611-2678  
800.621.8099 or 312.440.4653
- **Minnesota Board of Peace Officer Standards and Training**  
1600 University Avenue, Suite 200  
St. Paul, Minnesota 55104-3825  
651.643.3060
- **National Cancer Registrars Association (NCRA)**  
1330 Braddock Place, Suite 520  
Alexandria, VA 22314  
703-299-6640 phone

## **MEMBERSHIPS**

- Academic Quality Improvement Project (AQIP)
- American Association of Community Colleges (AACC)
- American Technical Education Association (ATEA)
- Council for Adult and Experiential Learning (CAEL)
- Council for Advancement and Support of Education (CASE)
- Minnesota Associate Degree Nursing Directors Association
- Minnesota Association of Financial Aid Administrators (MAFAA)
- Minnesota Community Athletic Conference (MCAC)
- Minnesota Practical Nursing Directors Association
- NAFSA: Association for International Educators
- National Academic Advising Association (NACADA)



- National Association for College Admission Counseling (NACAC)
- National Association for Home Care & Hospice (NAHC)
- National Association of Financial Aid Administrators (NASFAA)
- National Cancer Registrars Association (NCRA)
- National Council for State Authorization Reciprocity Agreements (NC-SARA)
- National Institute for Staff and Organizational Development (NISOD)
- National Junior College Athletic Association (NJCAA)
- National League for Nursing (NLN)
- Organization for Associate Degree Nursing (OADN)
- Quality Matters (QM)
- Society for Human Resource Management (SHRM)
- Upper Midwest Association of Collegiate Registrars and Admissions Officers (UMACRAO)

## Policies

It is the responsibility of every student, employee and guest to the campus to be familiar with College policies and procedures.

For more information about all aspects of RCTC and MnSCU policies, please visit the RCTC policies website at <http://www.rctc.edu/policies/>. This site is intended to assist you in locating policies and procedures that govern the Rochester Community and Technical College community and includes tools to assist you in creating new or updating existing policies. If you have questions, please e-mail them to [PresidentsOffice@rctc.edu](mailto:PresidentsOffice@rctc.edu). Policies will be made available, upon request, in an alternative format such as large print or audio tape.

**NOTICE:** Every effort has been made to make the RCTC Web Site accurate as of the date of publication; however, all policies, procedures, and fees are subject to change at any time by appropriate action of the faculty, the college administration, the Minnesota State Colleges and Universities Board, or the Minnesota Legislature.

## Non-Discrimination / Sexual Violence

### **EQUAL OPPORTUNITY AND NONDISCRIMINATION IN EMPLOYMENT AND EDUCATION (MnSCU Policy 1B.1)**

Rochester Community and Technical College believes that harassment and/or discrimination of an individual or group on the basis of race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, or membership or activity in a local commission has no place in a learning or working environment and is prohibited. Detailed definitions, policies and procedures from MNSCU's Board Policy 1B.11 Nondiscrimination in Employment and Education Opportunity and Procedure 1B.1.1 Report/Complaint of Discrimination, Harassment /Investigation and Resolution can be reviewed online at <http://mnscu.edu/board/policy/1b01.html> and <http://mnscu.edu/board/procedure/1b01pl.html>. RCTC's policy can be found at: <http://www.rctc.edu/policies/system/nondiscrimination.html>.

Any individual who believes she or he has been, or is being, subjected to conduct prohibited by MNSCU Board Policy 1B.1, Nondiscrimination in Employment and Education Opportunity, is encouraged to report the incident to Renee Engelmeyer, Chief Human Resources Officer, Human Resources Office, CF116, Rochester Community and Technical College, Rochester, MN, at 285-7183 or at: [renee.engelmeyer@rctc.edu](mailto:renee.engelmeyer@rctc.edu).

### **SEXUAL VIOLENCE (MnSCU Policy 1B.3)**

Sexual violence is an intolerable intrusion into the most personal and private rights of an individual, and is prohibited at Minnesota State Colleges and Universities (MnSCU). MnSCU and Rochester Community and Technical College are committed to eliminating sexual violence in all forms and will take appropriate remedial action against any individual found responsible for acts in violation of this policy. Acts of sexual violence may also constitute violations of criminal or civil law, or other Board Policies that may require separate proceedings. To further its commitment against sexual violence, Minnesota State Colleges and Universities provides reporting options, an investigative and disciplinary process, and prevention training or other related services as appropriate.

Detailed definitions, policies and procedures from MNSCU's Board Policy 1B.3, Sexual Violence, can be found at: <http://www.mnscu.edu/board/policy/1b03.html> and <http://www.mnscu.edu/board/procedure/1b03p1.html>. RCTC's policy can be found at: <http://www.rctc.edu/policies/system/SexualViolence.htm>.

Any individual who believes she or he has been, or is being, subjected to conduct prohibited by MNSCU Board Policy 1B.3, Sexual Violence, is encouraged to report the incident to Renee Engelmeyer, Chief Human Resources Officer, Human Resources Office, CF116, Rochester Community and Technical College, Rochester, MN, at 285.7183 or at: [renee.engelmeyer@rctc.edu](mailto:renee.engelmeyer@rctc.edu).

## **Admissions and Records**

RCTC's Admissions and Records Office provides multiple student services including information regarding [campus visits](#), [general admission](#), [transcript evaluation](#), orientation, [assessment testing](#), Degree Audit Reports ([DARS](#)), [registration](#), [grading](#), and [graduation](#) services.

Please visit these RCTC Admissions and Records websites for more information:

Prospective Student Information: <http://www.rctc.edu/admissions/>

Academic Calendar: [http://www.rctc.edu/admissions/html/academic\\_calendar.html](http://www.rctc.edu/admissions/html/academic_calendar.html)

eServices: <http://www.rctc.edu/eservices/>

Graduation Information: <http://www.rctc.edu/admissions/html/graduation.html>

The Admissions and Records Office maintains a permanent and confidential record of each student's academic history at the college.

## Transfer Information

Students who present credits from other higher education institutions will have those credits evaluated once official transcripts have been received in the Admissions and Records Office. The institution that the student attended must be accredited at the higher education level. The course work to be transferred must be comparable in nature, content and level to courses offered at Rochester Community and Technical College.

For more information regarding transfer, please visit the RCTC Transfer website at <http://www.rctc.edu/admissions/pre/admission/transfer.html>.

## Academic Calendar

Academic Calendars in the Minnesota State system are subject to change and modifications or interruptions due to occurrences such as fire, natural disasters, labor disputes, interruption of utility services, acts of nature, civil disorder and war. In the event of any such occurrences, the College will attempt to accommodate its students. It will not, however, guarantee that courses of instruction, extracurricular activities, or other RCTC programs or events will be completed or rescheduled.

For a full listing of the RCTC academic calendar including important dates such as registration dates, drop/add's, holiday's and non-instruction days, please go to:

RCTC's Academic Calendar: [www.rctc.edu/admissions/html/academic\\_calendar.html](http://www.rctc.edu/admissions/html/academic_calendar.html)

Registration dates: [www.rctc.edu/eservices/registration-dates-windows.html](http://www.rctc.edu/eservices/registration-dates-windows.html)

Drop/Add information: [www.rctc.edu/eservices/registration-course-drop.html](http://www.rctc.edu/eservices/registration-course-drop.html)

Important Deadlines: [www.rctc.edu/eservices/registration-deadlines.html](http://www.rctc.edu/eservices/registration-deadlines.html)

### **2017-2018**

Fall Semester Starts August 21, 2017

Spring Semester Starts January 8, 2018

### **2018-2019**

Fall Semester Starts August 27, 2018

Spring Semester Starts January 14, 2019

### **2019-2020**

Fall Semester Starts August 26, 2019

Spring Semester Starts January 13,  
2020

### **2020-2021**

Fall Semester Starts August 24, 2020

Spring Semester Starts January 11, 2021



## Financial Aid

The RCTC Financial Aid Office was created to educate students and families about the options available for funding College and help them navigate the sometimes complicated process. We assist students in securing funding to help pay for college costs; from application, to disbursement and through to repayment of loans. RCTC offers a wide variety of financial aid programs, which include Federal and State grants, work study employment and multiple student loan options.

For more information about all aspects of Financial Aid and the funding options available to RCTC students, please visit the RCTC Financial Aid website at <http://www.rctc.edu/financialaid/>.

**NOTICE:** Every effort has been made to make the RCTC Web Site accurate as of the date of publication; however, all policies and procedures are subject to change at any time by appropriate action of the college administration, the Minnesota State Colleges and Universities Board, the Minnesota Legislature and/or the U.S. Department of Education.

## Academic Advising and Counseling

Every student has an academic advisor or counselor, who is here to support students in their educational growth and guide them through program requirements. Your assigned counselor or advisor appears on your schedule and on your Degree Audit Report ([DARS](#)). Students should work closely with their academic advisor or counselor so that educational goals are met. It is very important to meet with your academic advisor or counselor each semester to ensure that you receive ongoing advice regarding satisfactory academic and career progress. Students who have concerns that cannot be addressed by their assigned advisor are always welcome to meet with a counselor.

### **Academic Advisors and Counselors: What is the difference?**

An Academic Advisors assists students with academic decisions, helps students clarify academic goals and understand how courses fit into these goals.

A College Counselor is a licensed and nationally certified career counselor, experienced in assisting students with academic and career planning. Counselors also provide crisis counseling and services to assist with family and personal relationship concerns. Any RCTC student may meet with a College Counselor.

For more information about all aspects of Advising and Counseling available to RCTC students, please visit the RCTC Academic Advising and Counseling website at [http://www.rctc.edu/counseling\\_career\\_center/html/advisors.html](http://www.rctc.edu/counseling_career_center/html/advisors.html).

## Minnesota Transfer Curriculum Goals (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.

All college level courses in which a student has received a grade of A, B, C, D or P/S will be considered for transfer to RCTC. Grades of A through D transfer for the Minnesota Transfer Curriculum (MnTC). Completion of the 40 credit MnTC requires a cumulative 2.0 GPA. While D grades transfer, some specialized/occupational/technical programs require courses to have a grade of C or higher to fulfill requirements. No F grade courses will be accepted. Transfer course grades will not be used in computing a student's GPA at RCTC except for some special programs that require the calculation of GPA for application/admission to the program, such as Nursing. Only earned transfer credits (not grade point credits or grade points) will be recorded on the official RCTC transcript.

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.** [This course would meet MNTC goals for Critical Thinking, Natural Sciences, and 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).

**Goal 1: Communication - Minimum: 11 Credits****Minimum: 11 Credits including**

- **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**

**Objective:** 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:**

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

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

COMM 1114	Fundamentals of Public Speaking	3
COMM 1130	Interpersonal Communication	3
COMM 2100	Intercultural Communication	3
COMM 2130	Team/Small Group Communication	3
COMM 2214	Career Communication	3
COMM 2220	Communication and Gender	3
ENGL 1109	Introduction to Technical Communication	3
ENGL 1117	Reading and Writing Critically I	4
ENGL 1118	Reading and Writing Critically II	4
ENGL 2230	Minnesota Writers	3

### Goal 2: Critical Thinking

**Objective:** 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 students' 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:

- Recognize and articulate the value assumptions which underlie and affect decisions, interpretations, analyses, and evaluations made by ourselves and others.
- 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.
- 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.

### RCTC courses that meet guidelines for Goal 2: Critical Thinking

ANTH 1611	Physical Anthropology & Archeology	3
ANTH 1612	Cultural Anthropology	3
ANTH 1613	Folklore of the Americas and Beyond	3
ARAB 1101	Beginning Arabic I	4
ARAB 1102	Beginning Arabic II	4
ARAB 2101	Intermediate Arabic I	4
ARAB 2102	Intermediate Arabic II	4
ART 1010	Introduction to Art	3
ART 1110	Art Appreciation	3

ART 1111	Art History Survey I	3
ART 1112	Art History Survey II	3
ART 1120	Computer As Creative Media	3
ART 1121	2D Design	3
ART 1123	3D Design	3
ART 1124	Graphic Design I	3
ART 1130	Digital Art I	3
ART 1134	Drawing I	3
ART 1140	Printmaking: Relief and Intaglio	3
ART 1144	Painting I	3
ART 1164	Ceramics I	3
ART 1175	Art of the Islamic World	3
ART 1184	Photography I	3
ART 1212	Figure Drawing	3
ART 1284	Darkroom Photography	3
ASL 1107	American Sign Language I	3
ASL 1108	American Sign Language II	3
BIOL 1100	Environmental Biology	3
BIOL 1101	Elements of Biology	3
BIOL 1102	Plant Biology	3
BIOL 1107	Fundamentals of Anatomy & Physiology	4
BIOL 1110	Human Biology	4
BIOL 1127	Principles of Anatomy & Physiology I	4
BIOL 1128	Principles of Anatomy & Physiology II	3
BIOL 1216	Anatomy and Physiology of the Nervous & Respiratory Systems	2
BIOL 1217	Anatomy & Physiology I	4
BIOL 1218	Anatomy & Physiology II	4
BIOL 1220	Concepts of Biology	4
BIOL 2000	Ecology	4
BIOL 2021	General Microbiology	4
BIOL 2300	Genetics	4
CHEM 1031	Introduction to Forensic Chemistry	3
CHEM 1100	Chemistry & Our World	3
CHEM 1101	Elements of Chemistry	3
CHEM 1117	General, Organic and Biological Chemistry I	4
CHEM 1127	Chemical Principles I	4
CHIN 1101	Beginning Chinese I	4
CHIN 1102	Beginning Chinese II	4
COMM 1114	Fundamentals of Public Speaking	3
COMM 1125	Oral Interpretation	3

COMM 1130	Interpersonal Communication	3
COMM 2100	Intercultural Communication	3
COMM 2130	Team/Small Group Communication	3
COMM 2214	Career Communication	3
COMM 2220	Communication and Gender	3
DANC 1101	Ballet I	3
DANC 1102	Modern I	3
DANC 1103	Jazz I	3
DANC 1125	Dance Appreciation	3
ECON 1101	Introduction to Economics	3
ECON 2214	Principles of Economics: Micro	4
ECON 2215	Principles of Economics: Macro	4
ENGL 1109	Introduction to Technical Communication	3
ENGL 1117	Reading and Writing Critically I	4
ENGL 1118	Reading and Writing Critically II	4
ENGL 1121	Mythology & Ancient Legend	3
ENGL 1125	Women's Perspectives	3
ENGL 1150	Introduction to Creative Writing	3
ENGL 2230	Minnesota Writers	3
ENGL 2252	Writing Poetry	3
ENGL 2255	Shakespeare: Screen, Stage, and Page	3
ENGL 2260	Literature: Topical Studies	0
ENGL 2273	Early American Literature	3
ENGL 2274	Modern American Literature	3
ENGL 2275	Asian-American Literature	3
ENGL 2276	Best Sellers	3
ENGL 2277	Women and Literature	3
ENGL 2284	Literature and the Environment	3
ENGL 2290	Fiction Writing	3
ENGL 2297	Children's Literature	3
ENGL 2298	Adolescent Literature	3
ENGL 2978	The Bible as Literature: Honors	3
ESCI 1004	Earthquakes and Volcanoes	3
ESCI 1101	Principles of Geoscience	3
ESCI 1115	Historical Geology	4
ESCI 1124	Solar System Astronomy	4
ESCI 1134	Stellar Astronomy	3
ESCI 1144	Introduction to Environmental Geology	4
ESCI 1154	Introduction to Meteorology	3
FREN 1001	French Culture in a Global Context	3
FREN 1101	Beginning French I	4



FREN 1102	Beginning French II	4
FREN 2101	Intermediate French	3
FREN 2102	Intermediate French II	3
GEOG 1614	Human Geography	3
GEOG 1615	Economic Geography	3
GERM 1101	Beginning German I	4
GERM 1102	Beginning German II	4
HIST 1611	The Ancient World	3
HIST 1612	The Medieval World	3
HIST 1613	Foundations of Western Civilization: From Ancient Greece to 1715	3
HIST 1614	Europe in the Modern Age: 1715-Present	3
HIST 1615	War and Peace in the 20th Century	3
HIST 1617	World History to 1500	3
HIST 1618	World History Since 1500	3
HIST 1622	History in Minnesota	3
HIST 1624	U.S. History to 1865	3
HIST 1625	U.S. History 1865-Present	3
HIST 1628	History of the Americas	3
HIST 1631	Modern Asian Civilizations	3
HIST 1640	Women in History	3
HIST 1650	History of Religion	3
HIST 1789	History of the American Presidency	3
HIST 2070	History of the Rock and Roll Era	3
HIST 2619	Issues in Modern World History	3
HUM 1001	Introduction to Hispanic Cultures	3
HUM 1020	French-Speaking Cultures (In English)	3
HUM 1111	Ancient Greek & Roman Culture & the Middle Ages: 900 B.C. to 1400 A.D.	3
HUM 1112	The Renaissance Through the Enlightenment: 1400 A.D. to 1770 A.D.	3
HUM 1113	The Romantic Age Through the Modern Age: 1770 A.D. to 2000 A.D.	3
HUM 1131	The Art of Being Human	3
HUM 1141	Brave New Worlds: The Humanities and Contemporary Culture (1965-Present)	3
HUM 1190	Native American Studies	3
HUM 1500	Compassion Studies	3
HUM 1841	Studies in Leadership	4
HUM 2121	Women's Issues Around the World	3
HUM 2255	Shakespeare: Screen, Stage, and Page	3
MATH 1050	Foundations of Mathematics: Algebra Emphasis	3

MATH 1060	Foundations of Mathematics: Geometry Emphasis	3
MATH 1090	Statway Statistics II	4
MATH 1111	Contemporary Concepts in Mathematics	3
MATH 1113	Finite Math With College Algebra	3
MATH 1115	College Algebra	3
MATH 1117	Precalculus	4
MATH 1119	Applied Calculus	3
MATH 1127	Calculus I	5
MATH 1128	Calculus II	5
MATH 2208	Fundamentals of Statistics	4
MCOM 1106	American Cinema	3
MCOM 1110	Introduction to Mass Communication	3
MCOM 2130	Mass Communication Theory	3
MUSC 1001	Music Fundamentals	3
MUSC 1002	Music, Video, Lights	3
MUSC 1101	Music Appreciation	3
MUSC 1201	History of Music to 1600	3
MUSC 1202	History of Music Since 1600	3
MUSC 1221	Popular Music in the United States	3
MUSC 1231	Introduction to World Music	3
MUSC 1241	Movies and Composers	3
MUSC 1301	Concert Choir	1
MUSC 1302	Concert Band	1
MUSC 1321	Aires	1
MUSC 1322	Jazz Band	1
MUSC 1331	Vocal Ensemble	1
MUSC 1332	Instrumental Ensemble	2
MUSC 1340	World Drum Ensemble	1
MUSC 1350	Marching Percussion Ensemble	1
MUSC 1401	Beginning Class Piano	3
MUSC 1421	Beginning Class Voice	3
MUSC 1422	Intermediate Class Voice	2
MUSC 1431	Beginning Class Guitar	3
MUSC 1450	Applied Music - Vocal	1
MUSC 1501	Musicianship I	4
MUSC 1601	Electronic Music Composition I	3
MUSC 2450	Vocal Performance Workshop	1
PHIL 1114	Introduction to Philosophy	3
PHIL 1125	Ethics	3
PHIL 1130	Environmental Ethics	3
PHIL 1135	Bioethics	3

PHIL 1140	Aesthetics	3
PHIL 1145	Logic	3
PHIL 1160	Philosophy of Religion	3
PHIL 2001	Science Fiction and Philosophy	3
PHIL 2130	Business Ethics	3
PHYS 1101	Elements of Physics	3
PHYS 1103	Principles of Physics	3
PHYS 1117	Introductory Physics I	5
PHYS 1118	Introductory Physics II	5
PHYS 1127	Classical Physics I	5
POLS 1615	Introduction to American Government	3
POLS 1619	International Relations	3
POLS 1620	Constitutional Law	3
POLS 1630	Introduction to Political Science	3
PSYC 1600	Positive Life Skills	3
PSYC 1611	Psychology of Adjustment	3
PSYC 1650	Evolution and Human Behavior	3
PSYC 1660	Health Psychology	3
PSYC 2611	Social Psychology	3
PSYC 2618	General Psychology	4
PSYC 2620	Introduction to Cultural Psychology	3
PSYC 2622	Abnormal Psychology	3
PSYC 2626	Human Growth & Development	3
SCIE 1100	Integrated Biology and Chemistry	3
SCIE 1200	Integrated Earth Science and Physics	3
SOC 1612	Sex and Gender in Society	3
SOC 1614	Introduction to Sociology	3
SOC 1616	Social Problems	3
SOC 1618	Environmental Sociology	3
SOC 2612	Marriage and the Family Across the Life Span	3
SOC 2618	Social Interaction	3
SOC 2625	Minority Group Relations	3
SOMA 1101	Somali I	4
SOMA 1102	Somali II	4
SPAN 1001	Introduction to Hispanic Cultures	3
SPAN 1101	Beginning Spanish I	4
SPAN 1102	Beginning Spanish II	4
SPAN 2101	Intermediate Spanish I	4
SPAN 2102	Intermediate Spanish II	4
THTR 1121	Beginning Acting I	3
THTR 1134	Theatre Appreciation	

### Goal 3: Natural Science- Minimum: 6 Credits

**Objective:** To improve students' 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:

- Demonstrate understanding of scientific theories.
- 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.
- 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, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.

#### RCTC courses that meet guidelines for Goal 3: Natural Science

BIOL 1100	Environmental Biology	3
BIOL 1101	Elements of Biology	3
BIOL 1102	Plant Biology	3
BIOL 1107	Fundamentals of Anatomy & Physiology	4
BIOL 1110	Human Biology	4
BIOL 1127	Principles of Anatomy & Physiology I	4
BIOL 1128	Principles of Anatomy & Physiology II	3
BIOL 1216	Anatomy and Physiology of the Nervous & Respiratory Systems	2
BIOL 1217	Anatomy & Physiology I	4
BIOL 1218	Anatomy & Physiology II	4
BIOL 1220	Concepts of Biology	4
BIOL 2000	Ecology	4
BIOL 2021	General Microbiology	4
BIOL 2300	Genetics	4
CHEM 1031	Introduction to Forensic Chemistry	3
CHEM 1100	Chemistry & Our World	3
CHEM 1101	Elements of Chemistry	3
CHEM 1117	General, Organic and Biological Chemistry I	4

CHEM 1127	Chemical Principles I	4
ESCI 1004	Earthquakes and Volcanoes	3
ESCI 1101	Principles of Geoscience	3
ESCI 1115	Historical Geology	4
ESCI 1124	Solar System Astronomy	4
ESCI 1134	Stellar Astronomy	3
ESCI 1144	Introduction to Environmental Geology	4
ESCI 1154	Introduction to Meteorology	3
PHYS 1101	Elements of Physics	3
PHYS 1103	Principles of Physics	3
PHYS 1117	Introductory Physics I	5
PHYS 1118	Introductory Physics II	5
PHYS 1127	Classical Physics I	5
SCIE 1100	Integrated Biology and Chemistry	3
SCIE 1200	Integrated Earth Science and Physics	3

### Goal 4: Mathematical/Logical Reasoning- Minimum: 3 Credits

#### Minimum: 3 Credits from MnTC Goal 4

**Objective:** To increase students' 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:

- Clearly express mathematical/logical ideas in writing.
- Apply higher-order problem-solving and/or modeling strategies.
- Explain what constitutes a valid mathematical/logical argument (proof).
- Illustrate historical and contemporary applications of mathematical/logical systems.

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

MATH 1050	Foundations of Mathematics: Algebra Emphasis	3
MATH 1060	Foundations of Mathematics: Geometry Emphasis	3
MATH 1090	Statway Statistics II	4
MATH 1111	Contemporary Concepts in Mathematics	3
MATH 1113	Finite Math With College Algebra	3
MATH 1115	College Algebra	3
MATH 1117	Precalculus	4
MATH 1119	Applied Calculus	3

MATH 1127	Calculus I	5
MATH 1128	Calculus II	5
MATH 2208	Fundamentals of Statistics	4
PHIL 1145	Logic	3

### Goal 5: History and the Social and Behavioral Sciences- Minimum: 9 Credits

**Minimum: 9 Credits with a minimum of two credits from each of three areas from MnTC Goal 5**

**Objective:** To increase students' 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:

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

#### RCTC courses that meet guidelines for Goal 5: History and the Social and Behavioral Sciences

ANTH 1611	Physical Anthropology & Archeology	3
ANTH 1612	Cultural Anthropology	3
ECON 1101	Introduction to Economics	3
ECON 2214	Principles of Economics: Micro	4
ECON 2215	Principles of Economics: Macro	4
GEOG 1614	Human Geography	3
HIST 1611	The Ancient World	3
HIST 1612	The Medieval World	3
HIST 1613	Foundations of Western Civilization: From Ancient Greece to 1715	3
HIST 1614	Europe in the Modern Age: 1715-Present	3
HIST 1615	War and Peace in the 20th Century	3
HIST 1617	World History to 1500	3
HIST 1618	World History Since 1500	3
HIST 1622	History in Minnesota	3
HIST 1624	U.S. History to 1865	3
HIST 1625	U.S. History 1865-Present	3
HIST 1628	History of the Americas	3



HIST 1631	Modern Asian Civilizations	3
HIST 1640	Women in History	3
HIST 1650	History of Religion	3
HIST 1789	History of the American Presidency	3
HIST 2070	History of the Rock and Roll Era	3
HIST 2619	Issues in Modern World History	3
MCOM 1110	Introduction to Mass Communication	3
MCOM 2130	Mass Communication Theory	3
POLS 1615	Introduction to American Government	3
POLS 1619	International Relations	3
POLS 1620	Constitutional Law	3
POLS 1630	Introduction to Political Science	3
PSYC 1600	Positive Life Skills	3
PSYC 1611	Psychology of Adjustment	3
PSYC 1650	Evolution and Human Behavior	3
PSYC 1660	Health Psychology	3
PSYC 2611	Social Psychology	3
PSYC 2618	General Psychology	4
PSYC 2620	Introduction to Cultural Psychology	3
PSYC 2622	Abnormal Psychology	3
PSYC 2626	Human Growth & Development	3
SOC 1612	Sex and Gender in Society	3
SOC 1614	Introduction to Sociology	3
SOC 1616	Social Problems	3
SOC 1618	Environmental Sociology	3
SOC 2612	Marriage and the Family Across the Life Span	3
SOC 2618	Social Interaction	3
SOC 2625	Minority Group Relations	3

## Goal 6: Humanities - Arts, Literature, and Philosophy - Minimum: 9 Credits

**Minimum: 9 Credits with a minimum of two credits from each of three areas from MnTC**  
**Goal 6**

**Objective:** 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:

- 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.
- 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 an historical and social context.

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

ART 1010	Introduction to Art	3
ART 1110	Art Appreciation	3
ART 1111	Art History Survey I	3
ART 1112	Art History Survey II	3
ART 1120	Computer As Creative Media	3
ART 1121	2D Design	3
ART 1123	3D Design	3
ART 1124	Graphic Design I	3
ART 1130	Digital Art I	3
ART 1134	Drawing I	3
ART 1140	Printmaking: Relief and Intaglio	3
ART 1144	Painting I	3
ART 1164	Ceramics I	3
ART 1175	Art of the Islamic World	3
ART 1184	Photography I	3
ART 1212	Figure Drawing	3
ART 1284	Darkroom Photography	3
COMM 1125	Oral Interpretation	3
DANC 1101	Ballet I	3
DANC 1102	Modern I	3
DANC 1103	Jazz I	3
DANC 1125	Dance Appreciation	3
ENGL 1121	Mythology & Ancient Legend	3
ENGL 1125	Women's Perspectives	3
ENGL 1150	Introduction to Creative Writing	3
ENGL 2230	Minnesota Writers	3
ENGL 2252	Writing Poetry	3
ENGL 2255	Shakespeare: Screen, Stage, and Page	3
ENGL 2260	Literature: Topical Studies	0
ENGL 2273	Early American Literature	3
ENGL 2274	Modern American Literature	3
ENGL 2275	Asian-American Literature	3
ENGL 2276	Best Sellers	3
ENGL 2277	Women and Literature	3
ENGL 2284	Literature and the Environment	3

ENGL 2290	Fiction Writing	3
ENGL 2297	Children's Literature	3
ENGL 2298	Adolescent Literature	3
ENGL 2978	The Bible as Literature: Honors	3
FREN 1001	French Culture in a Global Context	3
HUM 1001	Introduction to Hispanic Cultures	3
HUM 1020	French-Speaking Cultures (In English)	3
HUM 1111	Ancient Greek & Roman Culture & the Middle Ages: 900 B.C. to 1400 A.D.	3
HUM 1112	The Renaissance Through the Enlightenment: 1400 A.D. to 1770 A.D.	3
HUM 1113	The Romantic Age Through the Modern Age: 1770 A.D. to 2000 A.D.	3
HUM 1131	The Art of Being Human	3
HUM 1141	Brave New Worlds: The Humanities and Contemporary Culture (1965-Present)	3
HUM 1190	Native American Studies	3
HUM 1500	Compassion Studies	3
HUM 1841	Studies in Leadership	4
HUM 2121	Women's Issues Around the World	3
HUM 2255	Shakespeare: Screen, Stage, and Page	3
MCOM 1106	American Cinema	3
MUSC 1001	Music Fundamentals	3
MUSC 1002	Music, Video, Lights	3
MUSC 1101	Music Appreciation	3
MUSC 1201	History of Music to 1600	3
MUSC 1202	History of Music Since 1600	3
MUSC 1221	Popular Music in the United States	3
MUSC 1231	Introduction to World Music	3
MUSC 1241	Movies and Composers	3
MUSC 1301	Concert Choir	1
MUSC 1302	Concert Band	1
MUSC 1321	Aires	1
MUSC 1322	Jazz Band	1
MUSC 1331	Vocal Ensemble	1
MUSC 1332	Instrumental Ensemble	2
MUSC 1340	World Drum Ensemble	1
MUSC 1350	Marching Percussion Ensemble	1
MUSC 1401	Beginning Class Piano	3
MUSC 1421	Beginning Class Voice	3
MUSC 1422	Intermediate Class Voice	2
MUSC 1431	Beginning Class Guitar	3

MUSC 1450	Applied Music - Vocal	1
MUSC 1501	Musicianship I	4
MUSC 1601	Electronic Music Composition I	3
MUSC 2450	Vocal Performance Workshop	1
PHIL 1114	Introduction to Philosophy	3
PHIL 1125	Ethics	3
PHIL 1130	Environmental Ethics	3
PHIL 1135	Bioethics	3
PHIL 1140	Aesthetics	3
PHIL 1160	Philosophy of Religion	3
PHIL 2001	Science Fiction and Philosophy	3
PHIL 2130	Business Ethics	3
SPAN 1001	Introduction to Hispanic Cultures	3
SPAN 1101	Beginning Spanish I	4
SPAN 1102	Beginning Spanish II	4
THTR 1121	Beginning Acting I	3
THTR 1134	Theatre Appreciation	3

## Goal 7: Human Diversity - Minimum: 2 Credits

### Minimum: 2 Credits

**Objective:** To increase students' 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:

- Analyze their own attitudes, behaviors, concepts and beliefs regarding diversity, racism, and bigotry.
- Understand the development of and the changing meanings of group identities in the United States' history and culture.
- Demonstrate communication skills necessary for living and working effectively in a society with great population diversity.
- Demonstrate an awareness of the individual and institutional dynamics of unequal power relations between groups in contemporary society.
- 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.

### RCTC courses that meet guidelines for Goal 7: Human Diversity

ANTH 1611	Physical Anthropology & Archeology	3
ANTH 1612	Cultural Anthropology	3
ANTH 1613	Folklore of the Americas and Beyond	3
COMM 1130	Interpersonal Communication	3

COMM 2220	Communication and Gender	3
DANC 1125	Dance Appreciation	3
ENGL 2260	Literature: Topical Studies	0
ENGL 2273	Early American Literature	3
ENGL 2275	Asian-American Literature	3
ENGL 2276	Best Sellers	3
ENGL 2277	Women and Literature	3
ENGL 2297	Children's Literature	3
ENGL 2298	Adolescent Literature	3
HIST 1622	History in Minnesota	3
HIST 1624	U.S. History to 1865	3
HIST 1625	U.S. History 1865-Present	3
HIST 1628	History of the Americas	3
HIST 1640	Women in History	3
HIST 2070	History of the Rock and Roll Era	3
MCOM 1106	American Cinema	3
PHIL 2001	Science Fiction and Philosophy	3
PSYC 1600	Positive Life Skills	3
PSYC 1611	Psychology of Adjustment	3
PSYC 1660	Health Psychology	3
PSYC 2611	Social Psychology	3
PSYC 2618	General Psychology	4
PSYC 2622	Abnormal Psychology	3
PSYC 2626	Human Growth & Development	3
SOC 1612	Sex and Gender in Society	3
SOC 1614	Introduction to Sociology	3
SOC 2612	Marriage and the Family Across the Life Span	3
SOC 2618	Social Interaction	3
SOC 2625	Minority Group Relations	3

## Goal 8: Global Perspective - Minimum: 2 Credits

### Minimum: 2 Credits

**Objective:** To increase students' 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:

- Demonstrate knowledge of cultural, social, religious and linguistic differences.
- Understand the role of a world citizen and the responsibility world citizens share for their common global future.
- Analyze specific international problems, illustrating the cultural, economic, and political differences that affect their solution.

- Describe and analyze political, economic, and cultural elements which influence relations of states and societies in their historical and contemporary dimensions.

### **RCTC courses that meet guidelines for Goal 8: Global Perspectives**

ANTH 1613	Folklore of the Americas and Beyond	3
ARAB 1101	Beginning Arabic I	4
ARAB 1102	Beginning Arabic II	4
ARAB 2101	Intermediate Arabic I	4
ARAB 2102	Intermediate Arabic II	4
ART 1110	Art Appreciation	3
ART 1111	Art History Survey I	3
ART 1112	Art History Survey II	3
ART 1175	Art of the Islamic World	3
ASL 1107	American Sign Language I	3
ASL 1108	American Sign Language II	3
CHIN 1101	Beginning Chinese I	4
CHIN 1102	Beginning Chinese II	4
COMM 2100	Intercultural Communication	3
ECON 2215	Principles of Economics: Macro	4
ENGL 1121	Mythology & Ancient Legend	3
ENGL 1125	Women's Perspectives	3
ENGL 2255	Shakespeare: Screen, Stage, and Page	3
ENGL 2978	The Bible as Literature: Honors	3
FREN 1001	French Culture in a Global Context	3
FREN 1101	Beginning French I	4
FREN 1102	Beginning French II	4
FREN 2101	Intermediate French	3
FREN 2102	Intermediate French II	3
GEOG 1614	Human Geography	3
GEOG 1615	Economic Geography	3
GERM 1101	Beginning German I	4
GERM 1102	Beginning German II	4
HIST 1611	The Ancient World	3
HIST 1612	The Medieval World	3
HIST 1613	Foundations of Western Civilization: From Ancient Greece to 1715	3
HIST 1614	Europe in the Modern Age: 1715-Present	3
HIST 1615	War and Peace in the 20th Century	3
HIST 1617	World History to 1500	3
HIST 1618	World History Since 1500	3
HIST 1631	Modern Asian Civilizations	3



HIST 1650	History of Religion	3
HIST 2619	Issues in Modern World History	3
HUM 1001	Introduction to Hispanic Cultures	3
HUM 1020	French-Speaking Cultures (In English)	3
HUM 1111	Ancient Greek & Roman Culture & the Middle Ages: 900 B.C. to 1400 A.D.	3
HUM 1112	The Renaissance Through the Enlightenment: 1400 A.D. to 1770 A.D.	3
HUM 1113	The Romantic Age Through the Modern Age: 1770 A.D. to 2000 A.D.	3
HUM 1131	The Art of Being Human	3
HUM 2121	Women's Issues Around the World	3
HUM 2255	Shakespeare: Screen, Stage, and Page	3
MUSC 1231	Introduction to World Music	3
MUSC 1340	World Drum Ensemble	1
PHIL 1160	Philosophy of Religion	3
POLS 1619	International Relations	3
PSYC 2620	Introduction to Cultural Psychology	3
SOMA 1101	Somali I	4
SOMA 1102	Somali II	4
SPAN 1001	Introduction to Hispanic Cultures	3
SPAN 1101	Beginning Spanish I	4
SPAN 1102	Beginning Spanish II	4
SPAN 2101	Intermediate Spanish I	4
SPAN 2102	Intermediate Spanish II	4
THTR 1134	Theatre Appreciation	3

## Goal 9: Ethical and Civic Responsibility – Minimum: 2 credits

### Minimum: 2 Credits

**Objective:** 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 views 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 others' positions, be part of the free exchange of ideas, and function as public-minded citizens.

### Student Competencies for Goal 9:

- Examine, articulate, and apply their own ethical views.
- Recognize the diversity of political motivations and interests of others.
- Identify ways to exercise the rights and responsibilities of citizenship.
- Analyze and reflect on the ethical dimensions of legal, social, and scientific issues.

- Understand and apply core concepts (e.g. politics, rights and obligations, justice, liberty) to specific issues.

### **RCTC courses that meet guidelines for Goal 9: Ethical and Civic Responsibility**

BIOL 1101	Elements of Biology	3
ENGL 2274	Modern American Literature	3
HIST 1789	History of the American Presidency	3
HUM 1500	Compassion Studies	3
HUM 1841	Studies in Leadership	4
MCOM 1110	Introduction to Mass Communication	3
PHIL 1114	Introduction to Philosophy	3
PHIL 1125	Ethics	3
PHIL 1135	Bioethics	3
PHIL 2130	Business Ethics	3
POLS 1615	Introduction to American Government	3
POLS 1620	Constitutional Law	3
POLS 1630	Introduction to Political Science	3
SOC 1616	Social Problems	3

### **Goal 10: People and the Environment - Minimum: 2 Credits**

#### **Minimum: 2 Credits**

**Objective:** To improve students' understanding of today's complex environmental challenges. Students will examine the interrelatedness of human society and the natural environment. Knowledge of both bio-physical principles and socio-cultural systems is the foundation for integrative and critical thinking about environmental issues.

#### **Student Competencies for Goal 10:**

- Propose and assess alternative solutions to environmental problems.
- Articulate and defend the actions they would take on various environmental issues.
- Discern patterns and interrelationships of bio-physical and socio-cultural systems.
- Explain the basic structure and function of various natural ecosystems and of human adaptive strategies within those systems.
- Evaluate critically environmental and natural resource issues in light of understandings about interrelationships, ecosystems, and institutions.
- Describe the basic institutional arrangements (social, legal, political, economic, religious) that are evolving to deal with environmental and natural resource challenges.

BIOL 1100	Environmental Biology	3
BIOL 1102	Plant Biology	3
BIOL 1220	Concepts of Biology	4
BIOL 2000	Ecology	4
CHEM 1100	Chemistry & Our World	3
ECON 1101	Introduction to Economics	3
ECON 2214	Principles of Economics: Micro	4
ENGL 2284	Literature and the Environment	3
ESCI 1004	Earthquakes and Volcanoes	3
ESCI 1101	Principles of Geoscience	3
ESCI 1115	Historical Geology	4
ESCI 1144	Introduction to Environmental Geology	4
ESCI 1154	Introduction to Meteorology	3
GEOG 1615	Economic Geography	3
PHIL 1130	Environmental Ethics	3
PSYC 1650	Evolution and Human Behavior	3
SOC 1618	Environmental Sociology	3

# MnTC Guide

## Minnesota Transfer Curriculum Guide (MnTC)

Please note: Transferability of college credits is important to many postsecondary students in Minnesota. The Minnesota Transfer Curriculum (MnTC) is the result of a collaborative effort by all of the two- and four-year public colleges and universities in Minnesota to help students transfer their academic work between institutions. The MnTC is not a degree; it is a collection of coursework that facilitates credit transfer. Additional details may be found at:

[http://www.mntransfer.org/transfer/mntc/t\\_mntc.php](http://www.mntransfer.org/transfer/mntc/t_mntc.php)

### **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 two courses with a lab from two different areas that meet MnTC Goal 3

#### **Goal 4: Mathematics/Logical Reasoning ..... minimum of 3 cr**

Credits from MnTC Goal 4

#### **Goal 5: History and Social and Behavioral Sciences .....minimum of 9 cr**

A minimum of two credits from each of three areas from MnTC Goal 5

#### **Goal 6: The Humanities-the Arts, Literature and Philosophy....minimum of 9 cr**

A minimum of two credits from each of three areas from MnTC Goal 6

#### **Goal 7, 8, 9, 10: Two 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

Courses meeting MnTC Goals can be found on-line at: [http://www.rctc.edu/catalog/general-info/Minnesota\\_Transfer\\_Curriculum.cfm](http://www.rctc.edu/catalog/general-info/Minnesota_Transfer_Curriculum.cfm)

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[http://www.mntransfer.org/transfer/mntc/t\\_mntc.php](http://www.mntransfer.org/transfer/mntc/t_mntc.php)

# Articulation Agreements:

## Definition of an Articulation Agreement

An articulation agreement is a formal document produced when two or more academic institutions follow a process leading to a partnership to provide a formalized pathway for student transfer.

## Purpose of Articulation Agreements

Articulation agreements are designed to build strong partnerships and coordination between schools to aid in a smooth transition for students. By identifying comparable coursework, degree requirements can be met at one institution and transferred to another institution.

## Benefits of Articulation agreements

Articulation agreements ensure that students understand exactly which courses will and will not transfer. With such an agreement, students are more likely to make better course choices and can save students both time to degree and money. Four-year universities are noticing that transfer students have a high graduation rate, and well-crafted articulation agreements often contribute to a student's success at the university.

- Articulation agreements generally are formed through partnerships between two-year community and technical colleges and four-year universities. During articulation, representatives from each institution conduct meetings among faculty and staff before finalizing an agreement. The representatives consider similarities in course work, curricula, syllabi, textbooks and competency/outcomes profiles to ensure seamless transfer of credits to the partner institution.
- As the legal document of a partnership, the articulation agreement contains the final accords as agreed upon between the two institutions. This may include a description of the relationship between degree programs at the partner institutions illustrating their cohesiveness, operation guidelines and expectations, and, in the event the partnership is no longer viable, a foundation for dissolving or amending the terms of the agreement.
- The articulation agreement also details any benefits accorded from one institution to the other. For example, a university might offer community college students, faculty and staff a discount per credit hour, excluding fees, in addition to marketing assistance between the institutions, sponsorships and joint extracurricular and academic programs.

## Rochester Community and Technical College has articulation agreements with over 35 institutions including:

Alexandria Technical and Community College

Anoka-Ramsey Community College

Bemidji State University

Normandale Community College

North Hennepin Community College

Northland Community & Technical College

Cardinal Stritch University	Northwest Technical College - Bemidji
Central Lakes College	Northwestern Health Sciences University
Century College	Pine Technical and Community College
College of St. Scholastica	Ridgewater College
Fond du Lac Tribal & Community College	Riverland Community College
Hibbing Community & Technical College	Saint Mary's University of Minnesota--TC
Inver Hills Community College	Central College
Lake Superior College	Southwest Minnesota State University
Metropolitan State University	St Cloud State University
Minneapolis Community & Technical College	St Cloud Technical and Community College
Minnesota State College - Southeast Technical	University of Minnesota, Crookston
Minnesota State Community and Technical College	University of North Dakota
Minnesota State University Moorhead	University of Wisconsin - River Falls
Minnesota State University, Mankato	Winona State University
Minnesota West Community & Technical College	

**For a list of all RCTC Articulation Agreements visit: [www.mntransfer.org](http://www.mntransfer.org)**

**For more information on formal articulations it is recommended you see an [RCTC Counselor](#).**

## Award Information:

### **Certificates:**

A certificate is awarded for successful completion of a specialized set of skills or program of study. Certificates range in length from 9-30 credits. Several certificates are intended to be portions of diplomas or degrees. Thus, a student completing certain certificates will have completed a skill set that is part of a series of skills that may be used to complete a diploma or associate degree.

### **Diplomas:**

A diploma is awarded for successful completion of a program intended to provide students with a series of employment skill sets beyond the certificate. A diploma ranges in length from 31-72 semester credits. One-third of the credits in a diploma must be earned at RCTC.

### **Associate in Applied Science Degrees:**

An Associate in Applied Science Degree (AAS) is intended to prepare students for



employment. Increasingly, however, AAS degrees articulate to Bachelor of Applied Science degrees (BAS) with transfer institutions. An Associate in Applied Science Degree (AAS) is awarded for the successful completion of a program of 60-72 semester credits. At least 20 semester credits must be earned at RCTC.

An AAS degree includes a minimum of 25% in general education credits, the majority of which are prerequisites to or specifically supportive of the occupational requirements and goals for the program. Specific requirements within this general education requirement vary depending upon the purpose of the degree, but must include at least three credits in each of the four broad categories of the Minnesota Transfer Curriculum Goals 1, 3 and 4, 5, and 6. General Education courses must be selected from at least three of the ten Minnesota Transfer Curriculum theme areas. Students considering eventual transfer to a four-year institution should be mindful of Minnesota Transfer Curriculum (MnTC) courses when selecting general education options in an AAS degree. Courses not listed as MnTC courses may not be accepted by a transfer institution. At least 30 semester credits shall be program-related, occupational, or technical credits.

### **Associate in Science Degrees:**

An Associate in Science Degree (AS) is intended to prepare the student for employment in a designated field or area OR to prepare the student in a designated field or area which transfers to a baccalaureate major (BS) in a related scientific or technical field. Increasingly the AS degree is intended to meet the first two years of requirements for a specific baccalaureate program (BS). An Associate in Science degree is awarded after the successful completion of a program of 60-64 semester credits. At least 20 semester credits must be earned at RCTC.

An Associate in Science degree includes a minimum of 30 semester credits in general education, the majority of which are prerequisites to or specifically supportive of the occupational requirements and goals for the program. Specific requirements within general education vary, but each must include a minimum of 4 credits from each of the four broad discipline areas of the Minnesota Transfer Curriculum. General education courses must be selected from at least six of the ten theme areas of the Minnesota Transfer Curriculum (MnTC).

Associate in Science degrees articulate with four-year programs. In order to maximize transferability, when possible, students should choose general education courses identified as MnTC courses when completing an AS degree. An AS degree may even include the entire 40 credit Minnesota Transfer Curriculum.

### **Associate in Arts Degree:**

An Associate in Arts degree (AA) is intended to complete the first two years of a baccalaureate degrees (BA and/or BS). An Associate in Arts degree is awarded after the successful completion of a program of 60-64 semester credits. At least 20 semester

credits must be earned at RCTC. An Associate in Arts degree includes the entire Minnesota Transfer Curriculum (MnTC).

### **Associate in Fine Arts:**

An Associate in Fine Arts (AFA) degree is awarded for study in music or art at Rochester Community and Technical College. The AFA is awarded for successful completion of a program of 60-64 semester credits; at least 20 semester credits must be earned at RCTC. The degree contains part of the Minnesota Transfer Curriculum (MnTC), and is articulated with at least one other baccalaureate-granting institution with a comparable music or art degree program. The AFA, by virtue of its concentration of art or music study in the two year degree, can also prepare students for immediate employment in the arts. The Associate in Fine Arts is the newest degree authorized by the Board of Trustees of the Minnesota State Colleges and Universities system.

## **ACADEMIC PROGRAMS**

<b>Academic Programs</b>	<b>Awards</b>	<b>Credits</b>
Accounting	AS	60
Accounting Clerk	Dipl	31
Administrative Assistant	AAS	60
Administrative Assistant	AS	60
Administrative Assistant	Cert	30
Administrative Assistant	Dipl	38
Administrative Clinic Assistant	Dipl	33
Administrative Clinic Assistant	AAS	60
Advanced Hospital Nursing Assistant	Cert	16
Alcohol and Drug Counseling	AS	60
Alcohol and Drug Counseling	Cert	25
Art	AFA	60
Automobile Mechanic	Dipl	69
Bioinformatics Foundations	AS	60
Biotechnology	AS	60
Building Utilities Mechanic	AAS	69
Building Utilities Mechanic	Dipl	72
Business Administration	AS	60
Business Administration	Cert	21
Business Analysis	Cert	9
Business Management	AAS	60
Business Management	Cert	13
Business Management - Hospitality Business	AAS	60
Management - Marketing	AAS	60
CAD (Computer Aided Drafting) Technology	AAS	72
CAD (Computer Aided Drafting) Technology	Dipl	68

Cancer Registry Management	AAS	60
Cancer Registry Management	Cert	26
Cardiovascular Invasive Specialist	AAS	63
Carpentry	Dipl	32
Chemical Health Assistant	Cert	11
Child Development	Cert	22
Child Development	Dipl	32
Child, Youth, and Family Studies	AAS	60
Child, Youth, and Family Studies: Diversity	AAS	60
Child, Youth, and Family Studies: Inclusion and	AAS	60
Child, Youth, and Family Studies: Youth Studies	AAS	60
Clinical Neurophysiology Technology	AAS	81
Coaching	Dipl	31
Coding Specialist	Dipl	41
Communication Studies	Cert	16
Community Health Worker	Cert	16
Computer Information Systems	AS	60
Computer Science	AS	60
Criminal Justice	AS	60
Dental Assistant	AAS	64
Dental Assistant	Dipl	47
Dental Assistant Expanded Functions	Cert	13
Dental Hygiene	AAS	83
Developmental Disability Assistant	Cert	11
Emergency Medical Technology	Cert	24
Emergency Medicine Paramedic	AS	75
Employee Development	Cert	16
Engineering	AS	60
Environmental Science	AS	60
Equine Science Horse Husbandry	Cert	29
Equine Science Riding/Training	Dipl	51
Equine Studies	Cert	12
Graphic Design	AS	60
Group Fitness Instructor	Cert	22
Health Information Technology	AAS	64
Health Sciences Broad Field	AS	60
Health Unit Coordinator	Cert	27
Healthcare Documentation Specialist	Cert	22
Healthcare Informatics	Dipl	32
Histology Technician	AS	60
Horticulture Science	AS	60
Horticulture Technology	AAS	60
Horticulture Technology - Floriculture/Garden Center	Dipl	52
Horticulture Technology - Landscape/Golf Course/Grounds	Dipl	52
Human Services Specialist	AS	60
Human Services Technician	Dipl	36
Individualized Studies	AS	60
Laboratory Science	AS	60

Law Enforcement	AAS	60
Law Enforcement	AS	68
Law Enforcement	Cert	29
Liberal Arts and Sciences	AA	60
Liberal Arts and Sciences: Honors	AA	60
Medical Administrative Assistant	AAS	60
Medical Administrative Assistant	AS	60
Medical Administrative Assistant Mental Health Assistant	Dipl	38
Music Creative Technologies	Cert	11
Music Technology	Cert	20
Natural Science	AS	60
Nursing	AS	64
Personal Trainer	Dipl	33
Photography	Cert	26
Practical Nursing	Dipl	39
Precision Manufacturing Technology	Dipl	35
Science Foundations A	Cert	19
Science Foundations B	Cert	21
Sport Management	AAS	60
Supervisory Leadership (Only available through Business and Workforce Education)	AAS	60
Supervisory Leadership (Only available through Business and Workforce Education)	Cert	16
Supervisory Leadership: Employee Development (Only available through Business and Workforce Education)	Cert	17
Surgical Technology	AAS	60
Veterinary Technician	AAS	75
Web Design	AS	60
Welding Technology	Cert	17
Workplace Communication	Cert	9
Youth Work	Cert	17

# **PROGRAM OVERVIEWS AND PROGRAM PLANS**

# PROGRAM OVERVIEW

## ACCOUNTING

RCTC offers two program options for students interested in accounting. These include a diploma and an AS transfer program to four-year institutions.

The technical program is for a student who is looking for intensive short-term training for immediate employment. 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 with a RCTC 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.

RCTC graduates with an Associate in Science (AS) 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, and more.

### *Program/Degree Options*

RCTC offers an Accounting Clerk diploma and an Accounting AS degree.

### *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.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

Rochester Community and Technical College is also accredited by the Accreditation Council for Business Schools and Programs (ACBSP).

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## ACCOUNTING

Associate in Science

<b>I. MINNESOTA TRANSFER CURRICULUM (MNTC)/</b>	
<b>GENERAL EDUCATION REQUIREMENTS.....</b>	<b>30 CREDITS</b>
<b>GOAL 1: WRITTEN AND ORAL COMMUNICATION .....</b>	<b>7 CR</b>
COMM 1114, Fundamentals of Public Speaking, 3 cr	
ENGL 1117, Reading and Writing Critically I, 4 cr	
<b>GOAL 3: NATURAL SCIENCES .....</b>	<b>6 CR</b>
Choose two courses with labs from different areas that meet MNTC Goal 3	
<b>GOAL 4: MATHEMATICS/LOGICAL REASONING.....</b>	<b>3-5 CR</b>
MATH 1119, Applied Calculus for Business Majors, 3 cr	
<b>OR</b>	
MATH 1127, Calculus I, 5 cr	
<b>GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORAL SCIENCES .....</b>	<b>11 CR</b>
ECON 2214, Principles of Microeconomics, 4 cr	
ECON 2215, Principles of Macroeconomics, 4 cr	
Three credits from MNTC Goal 5	
<b>GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....</b>	<b>3 CR</b>
Credits from MNTC Goal 6	
<b>II. PROGRAM CORE REQUIREMENTS.....</b>	<b>30 CREDITS</b>
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 of Marketing, 3 cr	
BUS 2210, Legal Environment of Business, 3 cr	
BUS 2212, Business & Economics Statistics, 4 cr	
<b>TOTAL .....</b>	<b>60 CREDITS</b>

### ADDITIONAL NOTES:

This program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), 11520 West 119<sup>th</sup> Street, Overland Park, KS 66213. [www.acbsp.org](http://www.acbsp.org)

Revised: 12/13/2016

Implementation: Spring 2017

# RCTC PROGRAM PLAN

## ACCOUNTING CLERK

Diploma

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS..... 7 CREDITS**

**MNTC approved courses- take at least one:**

ENGL 1109, Introduction to Professional and 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

### II. PROGRAM CORE REQUIREMENTS.....20 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

### III. ACCOUNTING RELATED ELECTIVES.....4 CREDITS

**RECOMMENDED: Any ACCT, BTEC, BUS, ECON, SMGT or course approved by program advisor.**

**TOTAL.....31 CREDITS**

### **ADDITIONAL NOTES:**

**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, and record interest 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.

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.

### **PROGRAM ENTRANCE REQUIREMENTS:**

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: 12/13/2016; Implementation: Fall 2017



# PROGRAM OVERVIEW

## ADMINISTRATIVE ASSISTANT

RCTC offers various degree options as an Administrative Assistant. Administrative Assistant careers can also be classified as administrative professionals. They fill diverse roles as office managers, event planners, executive assistants and operations managers.

As an Administrative Assistant, you will wear many “hats” and will need to juggle many tasks. This career requires organizational and problem solving skills, resourcefulness, the ability to be self-directed, prioritize tasks, be reliable in taking on current and new responsibilities are essential.

### *Curriculum-at-a-Glance*

Extensive training is provided in communications, current software applications, and other office-related technology. Emphasis is placed on human relations, customer service, event planning and professionalism.

Students will be assessed on skills and projects that directly relate to project expectations in the work environment such as: creating business presentations, planning a conference, completing expense reports, creating business documents and managing multiple appointment calendars.

### *Program/Degree Options*

Administrative Assistant, Certificate  
Administrative Assistant, Diploma  
Administrative Assistant, Associate in Applied Science  
Administrative Assistant, Associate in Science

### *Program Start Date(s)*

Students can start coursework any semester. Full-time and part-time schedules are available. All Administrative Assistant courses are available online, with many courses available on campus and in a hybrid format.

### *Career Opportunities/Information*

Job opportunities are available in large and small offices including Ag Star, IBM, Mayo Clinic, Olmsted Medical

Center, the City of Rochester, Olmsted County, Non Profit Organizations, public and private educational campuses, manufacturing, law practices, banks and insurance firms to name a few.

Salary Range in MN	Starting Salary at one of the larger employers in Rochester area.
\$16.36 – \$23.06	\$17.33

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College. For additional information on the most current list of RCTC program articulations see us at: [www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

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

Take a look at job opportunities globally by going to the International Association of Administrative Professionals [careers.iaap-hq.org/jobseeker/search/results/](http://careers.iaap-hq.org/jobseeker/search/results/)

Employment Opportunities in MN as well as employment for the Rochester area, is provided to students on a Distance Learning Platform that all enrolled students will have direct access to.

### *Gainful Employment Programs*

The U.S. Department of Education’s (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## 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

Credits from MNTC Goal 4.....3 CR

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....3 CR**

Credits from MNTC Goal 5

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

Credits from MNTC Goal 6

**ANY MNTC GOAL 1-10 COURSES.....2 CR**

**II. PROGRAM CORE REQUIREMENTS.....43 CREDITS**

BTEC 1050, Keyboarding for Professionals, 2 cr  
 BTEC 1220, Human Relations in Organizations, 3 cr  
 BTEC 1320, Document Production, 3 cr  
 BTEC 2220, Business Communications, 3 cr  
 BTEC 2235, Quality Digital Transcription, 3 cr  
 BTEC 2270, Office Procedures, 3 cr  
 BTEC 2330, Advanced Document Production, 3 cr  
 BTEC 2355, Microsoft Business Applications, 4 cr  
 BTEC 2365, Advanced Microcomputer Business Applications, 3 cr  
 BTEC 2615, Applied Customer Service Skills and Concepts, 2 cr  
 BTEC 2616, Professionalism in the Workplace, 2 cr  
 BTEC 2617, Support Role in Meeting/Event Planning, 2 cr  
 BTEC 2622, Current Workplace Technology, 3 cr  
 BTEC 2870, Employment Strategies, 1 cr  
 COMM 2130, Team/Small Group Communications, 3 cr  
 ENGL 1630, English Grammar for Careers, 3 cr

# RCTC PROGRAM PLAN

**III. ELECTIVES.....2 CREDITS**

**RECOMMENDED:**

- BTEC 1001, Success in the Digital and Online Learning Environment, 1 cr
- BTEC 1010, Computer Basics, 1 cr
- BTEC 1015, Essential Computer Applications, 2 cr
- BTEC 1020, Keyboarding, 1 cr
- BTEC 1030, Keyboarding Speed/Accuracy, 1 cr
- BTEC 1610, Medical Terminology and Body Systems, 2 cr
- BTEC 2450, PowerPoint, 1 cr
- BTEC 2600, Microsoft Office Outlook, 1 cr
- BTEC 2880, Creating and Showcasing a Professional Portfolio, 1 cr
- BUS 1101, Introduction to Business, 3 cr

**TOTAL.....60 CREDITS**

**ADDITIONAL NOTES:**

**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.

**ADMISSION:** Students entering this program must be proficient in keyboarding skills at a minimum of 45net wpm or successfully completing BTEC 1020 Keyboarding and/or BTEC 1030, Keyboarding Speed/Accuracy as elective options.

Revised: 05/19/2015  
Implementation: Fall 2015

# RCTC PROGRAM PLAN

## ADMINISTRATIVE ASSISTANT

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**

Credits from MNTC Goal 3 (Must include a lab)

**OR**

**GOAL 4: MATHEMATICS/LOGICAL REASONING .....3 CR**

Mathematics must be MATH 1111 level or above

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....3 CR**

Credits from MNTC Goal 5

PSYC 1611, Psychology of Adjustment, 3 cr (**Recommended**)

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

Credits from MNTC Goal 6

PHIL 1125, Ethics, 3 cr (**Recommended**)

**Any MNTC Goal 1-10 Courses.....17 CR**

### II. PROGRAM CORE REQUIREMENTS.....30 CREDITS

BTEC 1050, Keyboarding for Professionals, 2 cr

BTEC 1220, Human Relations in Organizations, 3 cr

BTEC 1320, Document Production, 3 cr

BTEC 2220, Business Communications, 3 cr

BTEC 2270, Office Procedures, 3 cr

BTEC 2330, Advanced Document Production, 3 cr

BTEC 2355, Microsoft Business Applications, 4 cr

BTEC 2614, Customer Service Skills and Concepts, 3 cr

BTEC 2616, Professionalism in the Workplace, 2 cr

BTEC 2622, Current Workplace Technology, 3 cr

BTEC 2870, Employment Strategies, 1 cr

**TOTAL .....60 CREDITS**

### ADDITIONAL NOTES:

**PURPOSE:** This course of study develops the office skills, knowledge, and attitudes sought by today's employers. Training is provided in communications, current applications software, and other office-related technology. This degree program is also designed with additional general education requirement for those students who may wish to transfer to another program/institution.

# RCTC PROGRAM PLAN

**PROGRAM ENTRANCE REQUIREMENTS:**

**KEYBOARDING PREREQUISITE:** Students entering this program must be proficient in keyboarding skills at a minimum of 45 net wpm or successfully completing BTEC 1020, Keyboarding and/or BTEC 1030, Keyboarding Speed/Accuracy. This class will not count toward the required credits for the program

Revised: 05/19/2015

Implementation: Fall 2015

# RCTC PROGRAM PLAN

## ADMINISTRATIVE ASSISTANT

Certificate

**I. PROGRAM CORE REQUIREMENTS.....28 CREDITS**

- BTEC 1220, Human Relations in the Organizations, 3 cr
- BTEC 1320, Document Production, 3 cr
- BTEC 2220, Business Communications, 3 cr
- BTEC 2330, Advanced Document Production, 3 cr
- BTEC 2355, Microsoft Business Applications, 4 cr
- BTEC 2365, Advanced Microcomputer Business Applications, 3 cr
- BTEC 2614, Customer Service Skills and Concepts, 3 cr
- BTEC 2622, Current Workplace Technology, 3 cr
- ENGL 1630, English Grammar for Careers, 3 cr

**II. ELECTIVE.....2 CREDITS**

**RECOMMENDED:**

- \*BTEC 1030, Keyboarding for Speed/Accuracy, 1 cr
- \*\*BTEC 1050, Keyboarding for Professionals, 2 cr
- BTEC 2600, Microsoft Office Outlook, 1 cr
- BTEC 2615, Applied Customer Service Skills, 2 cr
- BTEC 2616, Professionalism in the Workplace, 2 cr
- BTEC 2617, Support Role in Meeting/Event Planning, 2 cr
- BTEC 2870, Employment Strategies, 1 cr
- BTEC 2880, Creating and Showcasing a Professional Portfolio, 1 cr

**TOTAL .....30 CREDITS**

**ADDITIONAL NOTES:**

**PURPOSE:** This abbreviated program is designed to train or retrain students for basic office clerical positions with emphasis placed on business communication that includes document production.

**PROGRAM ENTRANCE REQUIREMENTS:**

**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 1020, Keyboarding. This class will not count toward the required credits for the program.

- \* Recommended for students typing less than 45 wpm.
- \*\*Recommended for students typing less than 55 wpm.

Revised: 05/19/2015  
Implementation: Fall 2015

# RCTC PROGRAM PLAN

## ADMINISTRATIVE ASSISTANT

Diploma

### I. PROGRAM CORE REQUIREMENTS.....36 CREDITS

BTEC 1220, Human Relations in Organizations, 3 cr  
 BTEC 1320, Document Production, 3 cr  
 BTEC 2220, Business Communications, 3 cr  
 BTEC 2270, Office Procedures, 3 cr  
 BTEC 2235, Quality Digital Transcription, 3 cr  
 BTEC 2330, Advanced Document Production, 3 cr  
 BTEC 2355, Microsoft Business Applications, 4 cr  
 BTEC 2614, Customer Service Skills and Concepts, 3 cr  
 BTEC 2615, Applied Customer Service Skills and Concepts, 2 cr  
 BTEC 2616, Professionalism in the Workplace, 2 cr  
 BTEC 2622, Current Workplace Technology, 3 cr  
 BTEC 2870, Employment Strategies, 1 cr  
 ENGL 1630, English Grammar for Careers, 3 cr

### II. ELECTIVES..... 2 CREDITS

#### RECOMMENDED:

BTEC 1020, Keyboarding, 1 cr  
 BTEC 1030, Keyboarding Speed/Accuracy, 1 cr  
 BTEC 2600, Microsoft Office Outlook, 1 cr  
 BTEC 2617, Support Role for Meeting/Event Planning, 2 cr  
 BTEC 2880, Creating and Showcasing a Professional Portfolio, 1 cr

### TOTAL..... 38 CREDITS

#### ADDITIONAL NOTES:

**PURPOSE:** This program is designed to prepare the student for employment as an Administrative Information Processing Assistant utilizing word processing skills to perform a full range of office tasks. They may handle incoming and outgoing mail, type documents and forms, transcribe business documents from dictation, file and retrieve records, handle telephone calls, and make travel arrangements. They use a wide variety of office equipment including microcomputers, transcribing machines, calculators, and photocopiers. Employment opportunities could be in a medical, manufacturing, insurance, government or in communication.

#### PROGRAM ENTRANCE REQUIREMENTS:

**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 1020 Keyboarding, as their elective credit.

Revised: 05/19/2015

Implementation: Fall 2015

# PROGRAM OVERVIEW

## ADMINISTRATIVE CLINIC ASSISTANT

A career as an Administrative Clinic Assistant involves patient and physician contact, detailed appointment scheduling, phone work. Successful completion of this program would prepare graduate to assume the role of a Patient Service Representative, Patient Appointment Coordinator and Clinical Assistant. In each of these roles this individual will need to demonstrate problem solving, listening and organizational skills. Multitasking, being self-directed, the ability to prioritize tasks, demonstrate accountable/responsible behavior is imperative.

### *Curriculum-at-a-Glance*

As an Administrative Clinic Assistant, students will develop knowledge and attitudes sought by today's employers. Extensive training provided in:

- Customer Service
- Soft Skills
- Office Related Technology
- Entry Level Clinic Processes
- Oral and Written Communication

Our program incorporates courses that contain shadowing in the work environment. Students have elective options that will allow them to reach the skill level needed to be successful in their career. Example: Keyboarding

### *Program/Degree Options*

- \* Administrative Clinic Assistant, Diploma
- \* Administrative Clinic Assistant, Associate of Applied Science

### *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. Graduates of this program are employed at Mayo Clinic, Olmsted Medical, Chiropractic, Podiatry, Optometric and Dental clinics.

Salary Range in MN	Starting Salary at one of our larger employers in Rochester.
\$15.63 – \$21.95	\$17.33

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/aca/](http://www.rctc.edu/program/aca/)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

Employment Opportunities in MN as well as employment for the Rochester area is provided to students on a Distance Learning Platform that all enrolled students will have direct access to.

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).





# RCTC PROGRAM PLAN

## ADMINISTRATIVE CLINIC ASSISTANT

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....15 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....3 CR**

ENGL 1109, Introduction to Professional and Technical Communication, 3 cr

**OR**

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 4: MATHEMATICS/LOGICAL REASONING .....3 CR**

PHIL 1145, Logic, 3 cr (**Recommended**)

**OR**

MATH 1111, Contemporary Concepts in Mathematics, 3 cr

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....3 CR**

PSYC 1611, Psychology of Adjustment, 3 cr (**Recommended**)

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

PHIL 1125, Ethics, 3 cr (**Recommended**)

**OR**

COMM 2130, Team/Small Group Communications, 3 cr

**Any Additional MNTC Goal 1-10 Courses.....3 CR**

### II. PROGRAM CORE REQUIREMENTS.....36 CREDITS

BTEC 1001, Success in the Digital and Online Learning Environment, 1 cr

BTEC 1012, Essential Computer Applications, 2 cr

BTEC 1030, Keyboarding Speed/Accuracy, 1 cr

BTEC 1050, Keyboarding for Professionals, 2 cr

BTEC 1220, Human Relations in Organizations, 3 cr

BTEC 1620, Medical Terminology for Health Professions, 3 cr

BTEC 1720, Introduction to Administrative Clinic Assistant, 1 cr

BTEC 1730, Patient Office Procedures for an Administrative Clinic Assistant, 2 cr

BTEC 2600, Microsoft Office Outlook, 1 cr

BTEC 2614, Customer Service Skills and Concepts, 3 cr

BTEC 2615, Applied Customer Service Skills and Concepts, 2 cr

BTEC 2616, Professionalism in the Workplace, 2 cr

BTEC 2622, Current Technology in the Workplace, 3 cr

BTEC 2870, Employment Strategies, 1 cr

ENGL 1630, English Grammar for Careers, 3 cr

HIMC 1840, Introduction to Health Records, 3 cr

HIMC 2600, Human Diseases for Health Professionals, 3 cr

# RCTC PROGRAM PLAN

## III. ELECTIVES.....9 CREDITS

### RECOMMENDED:

BTEC 1020, Keyboarding, 1 cr  
 BTEC 1320, Document Production, 3 cr  
 BTEC 2210, Shadowing Capstone as an Administrative Clinic Assistant, 1 cr  
 BTEC 2350, Microcomputer Business Applications, 3 cr  
 BTEC 2450, PowerPoint, 1 cr  
 BTEC 2617, Support Role in Meeting and Event Management, 2 cr  
 HIMC 2800, Legal Aspects of Health Information, 2 cr  
 HLTH 1110, CPR/AED for the Professional Rescuer- (Health Care Provider), 1 cr

**TOTAL..... 60 CREDITS**

### ADDITIONAL NOTES:

**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. This degree program was designed for students to have more general education requirements, to transfer to another program/institution and provide more extensive training in interpersonal skills, team building, professionalism and knowledge of the current technology in the workplace. Successful completion of this program would prepare a graduate to assume the role of a Patient Service Representative, Patient Appointment Coordinator, Clinical Assistant.

**NOTE:** Students entering this program must be proficient in keyboarding skills at a minimum or 35 net wpm or successfully complete BTEC 1020, Keyboarding as an elective.

### 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 offences 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: 05/19/2015  
 Implementation: Fall 2015

# RCTC PROGRAM PLAN

## ADMINISTRATIVE CLINIC ASSISTANT

Diploma

**I. MINNESOTA TRANSFER CURRICULUM (MNTC)/  
GENERAL EDUCATION REQUIREMENTS.....3 CREDITS**  
PSYC 1611, Psychology of Adjustment, 3 cr

**II. PROGRAM CORE REQUIREMENTS.....28 CREDITS**  
BTEC 1001, Success in the Digital and Online Learning Environment, 1 cr  
BTEC 1015, Essential Computer Applications, 2 cr  
BTEC 1220, Human Relations in Organizations, 3 cr  
BTEC 1620, Medical Terminology for Health Professions, 3 cr  
BTEC 1720, Introduction to Administrative Clinic Assistant, 1 cr  
BTEC 1730, Patient Office Procedures for an Administrative Clinic Assistant, 2 cr  
BTEC 2600, Microsoft Office Outlook, 1 cr  
BTEC 2614, Customer Service Skills and Concepts, 2 cr  
BTEC 2615, Applied Customer Service Skills and Concepts, 2 cr  
BTEC 2622, Current Technology in the Workplace, 3 cr  
BTEC 2870, Employment Strategies, 1 cr  
ENGL 1630, English Grammar for Careers, 3 cr  
**OR**  
ENGL 1117, Reading and Writing Critically I, 4 cr  
HIMC 2600, Human Diseases for Health Professionals, 3 cr

**III. ELECTIVES..... 2 CREDITS**  
**RECOMMENDED:**  
BTEC 1020, Keyboarding, 1 cr  
BTEC 1030, Keyboarding Speed/Accuracy, 1 cr  
BTEC 1050, Keyboarding for Professionals, 2 cr  
\*BTEC 2210, Shadowing Capstone Experience as an Administrative Clinic Assistant, 1 cr  
BTEC 2616, Professionalism in the Workplace, 2 cr  
BTEC 2617, Support Role for Meeting/Event Planning, 2 cr  
HLTH 1110, CPR/AED for the Professional Rescuer, 1 cr

**TOTAL..... 33 CREDITS**

### **ADDITIONAL NOTES:**

**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 a graduate to assume the role of a Patient Service Representative, Patient Appointment Coordinator and Clinical Assistant.

**NOTE:** Students entering this program must be proficient in keyboarding skills at a minimum of 35 net word per minute or successfully complete BTEC 1020, Keyboarding as an elective.

# RCTC PROGRAM PLAN

**\*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 offences 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: 05/19/2015

Implementation: Fall 2015

# PROGRAM OVERVIEW

## ADVANCED HOSPITAL NURSING ASSISTANT

The Advanced Hospital Nursing Assistant Certificate is a 16-credit certificate program, one semester in length. The required courses prepare students to care for acute or chronically ill, hospitalized patients and teaches the necessary skills to seek employment at hospitals and other related service areas as a Patient Care Assistant (PCA).

All students must pass a Minnesota Department of Human Services background study and a National Background Study in order to participate in clinical experiences.

### *Curriculum-at-a-Glance*

The core requirements for the certificate are

- BTEC 1610: Medical Terminology: Body Systems and Diseases
- ENGL 1117: Reading and Writing Critically I
- HLTH 1110: CPR for the Health Care Professional
- NA 1500: Nursing Assistant Theory and Clinical or equivalent,
- NA 1602: Hospital Nursing Assistant
- PSYC 1611: Psychology of Adjustment.

### *Program/Degree Options*

Advanced Hospital Nursing Assistant Certificate, 16 credits

Completion of the certificate can be a career ladder to Human Services Technician, Surgical Technology, Practical Nursing, and Associate Degree Nursing programs.

### *Program Start Date(s)*

RCTC offers the core requirement course several times throughout the academic year, including summer session. Some of the general education requirements offer online options.

### *Career Opportunities/Information*

According to Minnesota State career information, employment of nursing assistants is expected to grow. The strongest demand for nursing assistants will be in long-term care and residential care homes. Students are eligible for employment as a Nursing Assistant after completing the NA 1500: Nursing Assistant Theory and Clinical course and passing the Nursing Assistant Registry Exam offered by Pearson Vue.

For the most up-to-date statewide employment information visit the following website.  
[www.careerwise.mnscu.edu](http://www.careerwise.mnscu.edu)

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

The NA 1500 curriculum is approved by the Minnesota Department of Health.

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## ADVANCED HOSPITAL NURSING ASSISTANT

Certificate

*Program approved by State of Minnesota Department of Health*

### I. PROGRAM 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**

### ADDITIONAL NOTES:

**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.

### PROGRAM ENTRANCE REQUIREMENTS:

- 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.**

# RCTC PROGRAM PLAN

## **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.

**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.**

## **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.

Revised: 01/12/2012

# PROGRAM OVERVIEW

## ALCOHOL AND DRUG COUNSELING

The Alcohol and Drug Counseling Program (ADC) 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 in Science Degree in Alcohol and Drug Counseling. The degree includes the professional core of addiction coursework as well as the necessary general education credits. RCTC also offers a Certificate in Alcohol and Drug Counseling. The certificate option is designed for students whom have an Associate degree or higher and focuses on the core of addiction coursework.

### *Program Start Date(s)*

Students can enroll on a part-time or full-time basis and may begin either fall or spring semester. Currently all but two of the Human Service (HS) Alcohol and Drug Counseling (ADC) core classes are open to any enrolled RCTC students. The two HS ADC core classes that are not open to all RCTC students are the clinical practicums. Students interested in accessing the clinical practicums must complete a PRACTICUM application form and meet all of the requirements outlined in the form.

### *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. The RCTC Alcohol and Drug Counseling AS Degree articulates with the Winona State University

### *Additional Information*

Program Website: [rctc.edu/program/alcohol-drug-counseling/](http://rctc.edu/program/alcohol-drug-counseling/)  
Program Plan: [rctc.edu/catalog/programs/](http://rctc.edu/catalog/programs/)  
More Information: [rctc.edu/contact/](http://rctc.edu/contact/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/).





# RCTC PROGRAM PLAN

## ALCOHOL AND DRUG COUNSELING

Associate In Science

<b>I. MINNESOTA TRANSFER CURRICULUM (MNTC)/</b>	
<b>GENERAL EDUCATION REQUIREMENTS.....</b>	<b>35 CREDITS</b>
<b>GOAL 1: WRITTEN AND ORAL COMMUNICATION .....</b>	<b>11 CR</b>
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	
<b>GOAL 2: CRITICAL THINKING MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS</b>	
<b>GOAL 3: NATURAL SCIENCES .....</b>	<b>4 CR</b>
BIOL 1110, Human Biology, 4 cr	
<b>GOAL 4: MATHEMATICS/SYMBOLIC SYSTEMS .....</b>	<b>4 CR</b>
MATH 1090, Statway Statistics II, 4 cr	
<b>OR</b>	
MATH 2208, Fundamentals of Statistics, 4 cr	
<b>GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....</b>	<b>10 CR</b>
PSYC 2618, General Psychology, 4 cr	
PSYC 2626, Human Growth and Development, 3 cr	
SOC 1614, Introduction to Sociology, 3 cr	
<b>GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....</b>	<b>6 CR</b>
HUM/SPAN 1001, Introduction to Hispanic Cultures, 3 cr	
*One additional 3-credit course from Art, English Literature, Dance, Humanities, Music or Philosophy	
<b>II. PROGRAM CORE REQUIREMENTS.....</b>	<b>25 CREDITS</b>
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	
<b>TOTAL.....</b>	<b>60 CREDITS</b>

# RCTC PROGRAM PLAN

## ADDITIONAL NOTES:

**PURPOSE:** The Alcohol and Drug Counseling track of the Associates Degree in Human Services provides the 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.

**ADMISSION:** 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/program/alcohol-drug-counseling/admission.html>

**\*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.**

### 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 offences 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: 01/12/2016

Implementation: Fall 2016

# RCTC PROGRAM PLAN

## ALCOHOL AND DRUG COUNSELING

Certificate

### I. PROGRAM CORE REQUIREMENTS.....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.....25 CREDITS**

### ADDITIONAL NOTES:

**PURPOSE:** The Alcohol and Drug Counseling Certificate prepares graduates for licensure with the Minnesota Board of Behavioral Health as Licensed Alcohol and Drug counselors (LADC). The certificate is designed for students who want to learn more about chemical dependency issues and/or whom desire a career as a licensed alcohol and drug 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 & Drug Counselor or other qualified professional. The certificate 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 LADC licensure with the Minnesota Board of Behavioral & Health.

### ADMISSION:

- A. Admitted to the college and indicate Alcohol and Drug Counseling as major.
- B. Documented proof of at least a Bachelor's degree or higher.
- C. Completion of HS 1740: Pharmacology of Addiction (2 credits) with a grade of B or higher.
- D. Completion of RCTC ADC application:
  - a. Including completion of Goal Statements Essay (1 paragraph or 8-10 complete sentences for each question)
    - i. Explain your reasons for wanting to enroll in the Alcohol and Drug Counseling Program?
    - ii. Describe your educational, vocational, and /or life experiences that you consider most important in your development as a prospective ADC student?
    - iii. Clarify your personal relationship with mood altering chemicals?
    - iv. Identify at least one (1) short term goal and one (1) long term goal related to your interest in the ADC program?
  - b. Provide at least two letters of recommendation:
    - i. One academic / professional

# RCTC PROGRAM PLAN

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/program/alcohol-drug-counseling/admission.html>

**\*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.**

## **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 offences is available at: <https://www.revisor.mn.gov/statutes?id=245C.15>. Information about completing the background study will be available from program faculty.

Implementation: Fall 2014

# PROGRAM OVERVIEW

## ART + DESIGN

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, and Web Design. The certificate program allows students to focus on 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, Photography I, Darkroom Photography, Photography II, Studio Lighting Techniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Animation and 3D Modeling, Web Design I and II, Motion Graphics I and II, Directed Studio, 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; Web Design, Associate in Science Degree Program; Photography, Certificate Program.

### *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, and photography. 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.

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.

Web and Interaction 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.

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.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission. An articulation agreement for Art, Associate in Fine Arts Degree Program has been established between RCTC and Winona State University.

An articulation agreement for the Web Design and Development AS has been established with Minnesota State University, Moorhead. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program have been established with Metropolitan State University.

### *Additional Information*

Program Website: [www.rctc.edu/program/art](http://www.rctc.edu/program/art)  
 Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)  
 More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## 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**

COMM 1114, Fundamentals of Public Speaking, 3 cr

**OR**

COMM 1130, Interpersonal Communication, 3 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

**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**

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 CORE 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

### III. 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

# RCTC PROGRAM PLAN

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

**TOTAL .....60 CREDITS**

## **ADDITIONAL NOTES:**

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  
 Implementation: Fall 2014

# PROGRAM OVERVIEW

## AUTOMOBILE MECHANIC

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*

Students seeking the Automobile Mechanic diploma are required to complete some general education credits as well as the credits of professional or technical courses noted above. The full list of required courses can be found at:  
[www.rctc.edu/catalog/programs/AMT\\_DIPL\\_PROG\\_PLANNING.pdf](http://www.rctc.edu/catalog/programs/AMT_DIPL_PROG_PLANNING.pdf)

### *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 transmissions, drivability or alignments for example or advance to shop foreman or service manager. Several RCTC graduates have opened their own repair businesses.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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:  
[www.rctc.edu/catalog/articulations/index.html](http://www.rctc.edu/catalog/articulations/index.html)

### *Additional Information*

Program website: [www.rctc.edu/program/amt/](http://www.rctc.edu/program/amt/)  
 Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
 More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).





# RCTC PROGRAM PLAN

## AUTOMOBILE MECHANIC

Diploma

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

#### GENERAL EDUCATION REQUIREMENTS.....8 CREDITS

COMM 1130, Interpersonal Communication, 3 cr

MATH 1015, Applied Technical Math, 3 cr

Credits from any 1000-level course meeting MNTC Goals 1-10 outside of AMT, 2 cr

### II. PROGRAM CORE REQUIREMENTS.....61 CREDITS

AMT 1710, Automotive Service Theory, 2 cr

AMT 1720, Electrical Theory, 2 cr

AMT 1725, Service and Electrical Lab, 3 cr

AMT 1730, Brakes Theory, 2 cr

AMT 1735, Brakes Lab, 4 cr

AMT 1740, Ignition Theory, 2 cr

AMT 1745, Ignition Lab, 2 cr

AMT 1810, Engine Repair Theory, 3 cr

AMT 1815, Engine Repair Lab, 7 cr

AMT 1820, Alignment and Suspension Theory, 2 cr

AMT 1825, Alignment and Suspension Lab, 3 cr

AMT 1900, Welding, 2 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, Automotive Science, 2 cr

AMT 2750, Engine Performance Theory, 4 cr

AMT 2752, Engine Performance Lab, 7 cr

AMT 2770, Heating and Air Conditioning, 3 cr

### TOTAL..... 69 CREDITS

#### ADDITIONAL NOTES:

**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 course in vehicle service, brakes, steering and suspension, starting and charging systems, electrical service, engine, overhaul, fuel systems, driveline and differential, clutch and transmission 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.

# RCTC PROGRAM PLAN

**PROGRAM ENTRANCE REQUIREMENTS:**

**PREREQUISITES:** Minimum assessment score to place into READ 0900 or completion READ 0800 with a grade of "C" or higher.

Revised: 02/14/2017

Implementation: Fall 2017

# PROGRAM OVERVIEW

## BIOTECHNOLOGY

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

### *Curriculum-at-a-Glance*

The Associate in 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 in 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.

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

### *Additional Information*

Program Website:  
[www.rctc.edu/program/biotechnology/](http://www.rctc.edu/program/biotechnology/)

Program Plan:  
[www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information:  
[www.rctc.edu/contact/](http://www.rctc.edu/contact/)



# RCTC PROGRAM PLAN

## BIOTECHNOLOGY

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 Public Speaking, 3 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 .....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.....4 CR**

MATH 2208, Fundamentals of Statistics, 4 cr

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL 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. PROGRAM CORE REQUIREMENTS.....30 CREDITS

BIOL 1230, Survey of Life Forms, 4 cr

BIOL 2300, Genetics, 4 cr

BIOL 2020, Introduction to Molecular Biology Methods, 4 cr

CHEM 1127, Chemical Principles I, 4 cr

CHEM 1128, Chemical Principles II, 4 cr

ENGL 1109, Introduction to Professional and Technical Communication, 3 cr

HCCC 1200, Introduction to Clinical/Research Lab, 2 cr

PHYS 1118, Introductory Physics II, 5 cr

**TOTAL .....60 CREDITS**

### ADDITIONAL NOTES:

**PURPOSE:** 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.

# RCTC PROGRAM PLAN

- (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 word a "patient care" focus.

## **PROGRAM ENTRANCE REQUIREMENTS:**

### **ADMISSION:**

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.

Revised: 05/10/2016

Implementation: Fall 2016

# PROGRAM OVERVIEW

## BUILDING UTILITIES MECHANIC

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*

First year instruction in RCTC's BUM program includes courses in boiler, boiler operation, welding, electricity, plumbing, tool usage, hydraulics, pneumatics, 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 provided an opportunity for an internship experience with a training sponsor to gain hands-on work experience. After initial training, students will be eligible to 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 (AAS) Degree in Building Utilities Mechanic.

The Diploma and AAS 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.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

For additional information on the most current list of RCTC program articulations see us at:

[www.rctc.edu/catalog/articulations/index.html](http://www.rctc.edu/catalog/articulations/index.html)

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## BUILDING UTILITIES MECHANIC

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....15 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....3 credits minimum**

COMM 1130, Interpersonal Communication, 3 cr

**GOAL 3: NATURAL SCIENCES**

**OR**

**GOAL 4: MATHEMATICS/LOGICAL REASONING.....3 credits minimum**

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES....3 credits minimum**

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY....3 credits minimum**

**Three credits of any additional MNTC courses.....3 credits minimum**

### II. PROGRAM CORE REQUIREMENTS.....54 CREDITS

#### *BUM I*

BU 1500, Power Plant Theory, 4 cr

BU 1510, Welding Theory, 1 cr

BU 1520, Welding Equipment Repair, 1 cr

BU 1530, Plumbing Theory, 1 cr

BU 1540, Power Plant Operation, 4 cr

BU 1550, Plumbing Lab, 2 cr

BU 1560, Basic Pneumatics/Hydraulics, 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**

# RCTC PROGRAM PLAN

## ADDITIONAL NOTES:

**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 electrical controls and programmable controls. Courses in residential and commercial refrigeration, air conditioning, pneumatics, heating and cooling control, 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.

**NOTE:** Students must test at READ 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.

Revised: 02/14/2017

Implementation: Fall 2017



# RCTC PROGRAM PLAN

## BUILDING UTILITIES MECHANIC

Diploma

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

#### GENERAL EDUCATION REQUIREMENTS.....5 CREDITS

BTEC 2870, Employment Strategies, 1 cr

COMM 1000, Introduction to Workplace Communication, 3 cr

#### OR

COMM 1130 Interpersonal Communication, 3 cr

MATH 1015, Applied Technical Math, 3 cr

#### OR

MATH 1016, Technical Math Essentials, 1 cr

### II. PROGRAM CORE REQUIREMENTS.....64 CREDITS

#### *BUM I*

BU 1500, Power Plant Theory, 4 cr

BU 1510, Welding Theory and Safety, 1 cr

BU 1520, Welding and Equipment Repair, 1 cr

BU 1530, Plumbing Plant Theory, 1 cr

BU 1540, Power Plant Operation, 4 cr

BU 1550, Plumbing Lab, 2 cr

BU 1560, Basic Pneumatic/Hydraulics, 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, Electrical Safety and National Codes, 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..... 69 CREDITS

# RCTC PROGRAM PLAN

## **ADDITIONAL NOTES:**

**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 educational, manufacturing, processing, and industrial facilities. Graduates have been employed as service technicians in the heating/ventilation/air conditioning (H.B.A.C.) field, building trades, and some are self-employed in the H.V.A.C. field.

## **PROGRAM ENTRANCE REQUIREMENTS:**

Students must test at READ 0900 level before enrolling or obtain instructor permission. Students must have successfully completed MATH 1015 or MATH 1016 before beginning BUM II courses or obtain instructor permission.

Revised: 03/14/2017

Implementation: Fall 2017

# PROGRAM OVERVIEW

## BUSINESS

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, and business management hospitality.

### *Program/Degree Options*

RCTC offers three certificate options, one Associate in Science (AS) degree and two Associate in Applied Science (AAS) degrees in Business. The Business Administration certificate is 21 credits and can be completed during the day, evening or online. The Business Management certificate is 13 credits. The Business Analysis Certificate is 9 credits and is currently completed through RCTC customized training. The RCTC Business Administration (AS degree), the Business Management and Business Management – Hospitality (AAS degree), and the Business Management-Marketing (AAS 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.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

Rochester Community and Technical College is also accredited by the Accreditation Council for Business Schools and Programs (ACBSP).

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at:  
[www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## BUSINESS ADMINISTRATION

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 Public Speaking, 3 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 .....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

**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. PROGRAM 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 and Economic Statistics, 4 cr

### III. BUSINESS ADMINISTRATION EMPHASIS.....9 CREDITS

**Choose three 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, 3 cr

BUS 2232, Principles of Management, 3 cr

BUS 2296, Business Internship, 3 cr

**TOTAL..... 60 CREDITS**

### ADDITIONAL NOTES:

This program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), 11520 West 119<sup>th</sup> Street, Overland Park, KS 66213. [www.acbsp.org](http://www.acbsp.org)

Revised: 02/09/2017

Implementation: Spring 2017



**WWW.RCTC.EDU**

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A member of the Minnesota State system and an Affirmative Action/Equal Opportunity College.  
RCTC provides accessible, affordable, quality learning opportunities to serve a diverse and growing community.

# RCTC PROGRAM PLAN

## BUSINESS ADMINISTRATION

Certificate

### I. PROGRAM CORE REQUIREMENTS.....21 CREDITS

ACCT 2217, Financial Accounting, 4 cr  
 ACCT 2218, Managerial Accounting, 4 cr  
 BUS 1101, Introduction to Business, 3 cr  
 BUS 2212, Business and 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 CREDITS**

Revised: 02/18/2009  
 Implementation: Fall 2009

# RCTC PROGRAM PLAN

## BUSINESS ANALYSIS

Certificate

### I. PROGRAM 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**

### **ADDITIONAL NOTES:**

**PURPOSE:** 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

# RCTC PROGRAM PLAN

## 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 MATH 1111 college level or above

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....3 CR**

ECON 1101, Introduction to Economics, 3 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. PROGRAM CORE REQUIREMENTS.....22 CREDITS

ACCT 2217, Financial Accounting, 4 cr

BTEC 2350, Microcomputer Business Applications, 3 cr

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

### III. BUSINESS MANAGEMENT EMPHASIS.....14 CREDITS

ACCT 2218, Managerial Accounting, 4 cr

BUS 2201, Principles of Marketing, 3 cr

BUS 2210, Legal Emphasis of Business, 3 cr

BUS 2240, Project Management, 3 cr

BUS 2290, Current Topics in Business, 1 cr

### IV. OPEN ELECTIVES.....9 CREDITS

**Suggested electives, but not limited to:**

BTEC 2220, Business Communications, 3 cr

BUS 1144, Opening and Managing a Small Business, 3 cr

# RCTC PROGRAM PLAN

BUS 2214, Retailing, 3 cr  
 BUS 2215, Salesmanship, 3 cr  
 BUS 2296, Business Internship, 2-4 cr

**TOTAL .....60 CREDITS**

## ADDITIONAL NOTES:

**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.

**This program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), 11520 West 119<sup>th</sup> Street, Overland Park, KS 66213. [www.acbsp.org](http://www.acbsp.org)**

Revised: 12/13/2016  
 Implementation: Spring 2017



# RCTC PROGRAM PLAN

## BUSINESS MANAGEMENT

Certificate

<b>I. PROGRAM CORE REQUIREMENTS.....</b>	<b>13 CREDITS</b>
ACCT 2217, Financial Accounting, 4 cr	
BUS 1101, Introduction to Business, 3 cr	
BUS 2214, Retailing, 3 cr	
<b>OR</b>	
BUS 2215, Salesmanship, 3 cr	
BUS 2232, Principles of Management, 3 cr	
<b>TOTAL .....</b>	<b>13 CREDITS</b>

Revised: 02/18/2009

# RCTC PROGRAM PLAN

## BUSINESS MANAGEMENT - HOSPITALITY

Associate in Applied Science

<b>I. MINNESOTA TRANSFER CURRICULUM (MNTC)</b>	
<b>GENERAL EDUCATION REQUIREMENTS.....</b>	<b>15 CREDITS</b>
<b>GOAL 1: WRITTEN AND ORAL COMMUNICATION .....</b>	<b>4 CR</b>
ENGL 1117, Reading and Writing Critically I, 4 cr	
<b>GOAL 2: CRITICAL THINKING MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS</b>	
<b>GOAL 3: NATURAL SCIENCES .....</b>	<b>3 CR</b>
Science must include one lab course in Biology, Chemistry, Earth Science or Physics	
<b>OR</b>	
<b>GOAL 4: MATHEMATICS/LOGICAL REASONING.....</b>	<b>3 CR</b>
Mathematics must be MATH 1111 college level or above	
<b>GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....</b>	<b>3 CR</b>
ECON 1101, Introduction to Economics, 3 cr	
<b>GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....</b>	<b>3 CR</b>
Credits from MNTC Goal 6	
<b>ADDITIONAL GENERAL EDUCATION REQUIREMENTS.....</b>	<b>2 CR</b>
Students may choose additional elective credits from MNTC Goals 1-10 to meet the general education requirements.	
<b>II. PROGRAM CORE REQUIREMENTS.....</b>	<b>22 CREDITS</b>
ACCT 2217, Financial Accounting, 4 cr	
BTEC 2350, Microcomputer Business Applications, 3 cr	
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	
<b>III. HOSPITALITY MANAGEMENT EMPHASIS.....</b>	<b>23 CREDITS</b>
ACCT 2218, Managerial Accounting, 4 cr	
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	
BUS 2507, Operations and Guest Service Management, 3 cr	
BUS 2508, Hospitality Sales Management and Digital Marketing, 3 cr	
BUS 2509, Hospitality Revenue Generation Strategies, 3 cr	
<b>TOTAL .....</b>	<b>60 CREDITS</b>

# RCTC PROGRAM PLAN

**ADDITIONAL NOTES:**

**PURPOSE:** The Business Management program provides 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. The program focuses on preparing careers in sales, management and marketing in the hospitality industry and is designed to provide opportunities for students to apply the skills they learn.

Revised: 03/14/2017

Implementation: Fall 2017

# RCTC PROGRAM PLAN

## 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**

Science must include one lab course in Biology, Chemistry, Earth Science or Physics

OR

**GOAL 4: MATHEMATICS/LOGICAL REASONING.....3 CR**

Mathematics must be MATH 1111 college level or above

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....3 CR**

ECON 1101, Introduction to Economics, 3 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. PROGRAM CORE REQUIREMENTS.....22 CREDITS

ACCT 2217, Financial Accounting, 4 cr

BTEC 2350, Microcomputer Business Applications, 3 cr

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

### III. MARKETING MANAGEMENT EMPHASIS.....16 CREDITS

BUS 2144, Introduction to E-Business, 3 cr

BUS 2201, Principles of Marketing, 3 cr

BUS 2202, Promotional Strategies, 3 cr

BUS 2214, Retailing, 3 cr

BUS 2215, Salesmanship, 3 cr

BUS 2290, Current Topics in Business, 1 cr

# RCTC PROGRAM PLAN

**IV. OPEN ELECTIVES.....7 CREDITS**

- Suggested electives, but not limited to:**  
ACCT 2218, Managerial Accounting, 4 cr  
BTEC 2220, Business Communications, 3 cr  
BUS 1144, Opening and Managing a Small Business, 3 cr  
BUS 2210, Legal Environment of Business, 3 cr  
BUS 2240, Project Management, 3 cr  
BUS 2296, Business Internship, 2-4 cr

**TOTAL .....60 CREDITS**

**ADDITIONAL NOTES:**

**PURPOSE:** The 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.

**This program is accredited by the Accreditation Council for Business Schools and Programs (ACBSP), 11520 West 119<sup>th</sup> Street, Overland Park, KS 66213. [www.acbsp.org](http://www.acbsp.org)**

Revised: 12/13/2016  
Implementation: Spring 2017

# PROGRAM OVERVIEW

## CAD (COMPUTER AIDED DRAFTING) TECHNOLOGY

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. Students not only have the opportunity to design, but also create hands on projects in our prototype lab using a 3Dprinter, laser, and CNC router.

### *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; a 68 credit diploma and a 72 credit Associate in Applied Science degree in CAD Technology.

The CAD Technology Associate in 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,

### *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 \$25.73 per hour. In Minnesota, the median hourly wage for mechanical drafters is \$29.14. In Southeastern Minnesota, mechanical drafters can anticipate a median hourly wage of \$23.59.

### *Accreditations/Articulations*

RCTC is accredited by The Higher Learning Commission.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/cadtech/](http://www.rctc.edu/program/cadtech/)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)  
Facebook: [www.facebook.com/RCTCCAD/](http://www.facebook.com/RCTCCAD/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible.

The most current RCTC gainful employment information can be found at [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)



# RCTC PROGRAM PLAN

## COMPUTER AIDED DRAFTING TECHNOLOGY

Associate in Applied Science

<b>I. MINNESOTA TRANSFER CURRICULUM (MNTC)/</b>	
<b>GENERAL EDUCATION REQUIREMENTS.....</b>	<b>16 CREDITS</b>
<b>GOAL 1: WRITTEN AND ORAL COMMUNICATION .....</b>	<b>7 CR</b>
COMM 1114, Fundamentals of Public Speaking, 3 cr	
<b>OR</b>	
COMM, Interpersonal Communication, 3 cr	
ENGL 1117, Reading and Writing Critically I, 4 cr	
<b>GOAL 2: CRITICAL THINKING MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS</b>	
<b>GOAL 3: NATURAL SCIENCES and/or</b>	
<b>GOAL 4: MATHEMATICS/LOGICAL REASONING.....</b>	<b>3 CR</b>
Credits from MNTC Goal 3 AND/OR credits from MNTC Goal 4	
<b>GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....</b>	<b>3 CR</b>
Credits from MNTC Goal 5	
<b>GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....</b>	<b>3 CR</b>
Credits from MNTC Goal 6	
<b>II. PROGRAM CORE REQUIREMENTS.....</b>	<b>56 CREDITS</b>
CAD 1039, 3D CAD, 4 cr	
CAD 1120, Welding Technology, 2 cr	
CAD 1123, Technical Illustration, 2 cr	
CAD 1145, Manufacturing Materials and Processes I, 3 cr	
CAD 1147, Manufacturing Materials 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	
<b>TOTAL.....</b>	<b>72 CREDITS</b>

# RCTC PROGRAM PLAN

**ADDITIONAL NOTES:**

**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



# RCTC PROGRAM PLAN

## COMPUTER AIDED DRAFTING TECHNOLOGY

Diploma

**I. MINNESOTA TRANSFER CURRICULUM (MNTC)/**

**GENERAL EDUCATION REQUIREMENTS.....10 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....3 CR**

ENGL 1109, Introduction to Professional and Technical Communication, 3 cr

**OR**

ENGL 1117, Reading and Writing Critically I, 4 cr

**OTHER GENERAL EDUCATION ELECTIVES.....7 CR**

**II. PROGRAM CORE REQUIREMENTS.....58 CREDITS**

CAD 1039, 3D CAD, 4 cr

CAD 1120, Welding Technology, 2 cr

CAD 1123, Technical Illustration, 2 cr

CAD 1145, Manufacturing Materials and Processes I, 3 cr

CAD 1147, Manufacturing Materials 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 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**

**ADDITIONAL NOTES:**

**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

# PROGRAM OVERVIEW

## CANCER REGISTRY MANAGEMENT

RCTC's Cancer Registry Management programs are designed for those interested in becoming a cancer registrar. Cancer registrars are data information specialists that capture a complete history, diagnosis, treatment, and health status for every cancer patient in the United States. The data provide essential information to researchers, healthcare providers, and public health officials to better monitor and advance cancer treatments, conduct research, and improve cancer prevention and screening programs. Registrars work closely with physicians, administrators, researchers, and health care planners to provide support for cancer program development, ensure compliance of reporting standards, and serve as a valuable resource for cancer information with the ultimate goal of preventing and controlling cancer.

### Mission statement:

The mission of the Cancer Registry Management program is to provide high quality education and training to a diverse population of students in order to fulfill a need in our community and throughout the country for credentialed cancer tumor registrar professionals.

### *Curriculum-at-a-Glance*

The following seven courses are required for the cancer registry management certificate and AAS degree: Cancer Registry Organization, Cancer Registry Operations, Cancer Diseases, Coding and Staging, Oncology Treatment and Coding, Abstracting Methods, Follow-up, Data Quality, and Utilization, Professional Practice/Clinical Practicum

### *Program/Degree Options*

RCTC's Cancer Registry Management program offers both a certificate (26 credits) and an Associate in Applied Science.

### *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*

Cancer registry professionals are needed in hospital-based and central cancer registries throughout the United States. In addition to managing and reporting cancer data, registrars serve in multiple other professional activities. Since the passage of the Cancer Registries Amendment Act in 1992, the number of central cancer registries has increased dramatically and health care facilities and physicians are required to report their cancer cases. Due to limited educational opportunities, there are not enough cancer registry professionals available to fill positions in this rapidly growing field.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

Rochester Community and Technical College's AAS and certificate program are fully accredited by the National Cancer Registrars Association (NCRA). Upon graduation, students are eligible to apply to take NCRA's national exam to become a Certified Tumor Registrar (CTR).

### *Additional Information*

Program Website: [www.rctc.edu/program/crm](http://www.rctc.edu/program/crm)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible.

The most current RCTC gainful employment information can be found at: <http://www.rctc.edu/catalog/programs>.



# RCTC PROGRAM PLAN

## CANCER REGISTRY MANAGEMENT

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....17 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....10 CR**

ENGL 1109, Introduction to Professional and Technical Communication, 3 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 and Physiology, 4 cr

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....3 CR**

PSYC 1611, Psychology of Adjustment, 3 cr

**OR**

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

PHIL 1135, Bioethics (**Recommended**), 3 cr

### II. PROGRAM CORE REQUIREMENTS.....43 CREDITS

BTEC 1015, Essential Computer Applications, 2 cr

BTEC 1620, Introduction to Medical Terminology, 3 cr

BTEC 2870, Employment Strategies, 1 cr

HIMC 1840, Introduction to Health Records, 3 cr

HIMC 1850, Computerized Health Information, 3 cr

HIMC 2110, Cancer Registry Organization, 3 cr

HIMC 2115, Cancer Registry Operations, 3 cr

HIMC 2120, Cancer Disease, Coding, and Staging, 4 cr

HIMC 2125, Oncology Treatment and Coding, 4 cr

HIMC 2130, Abstracting Methods, 4 cr

HIMC 2135, Follow-up, Data Quality, and Utilization, 4 cr

HIMC 2140, Professional Practice/Clinical Practicum, 4 cr

HIMC 2600, Human Diseases for Health Professionals, 3 cr

HIMC 2610, Pharmacology for Health Professionals, 2 cr

**TOTAL .....60 CREDITS**

# RCTC PROGRAM PLAN

## ADDITIONAL NOTES:

**Program Accreditation:** Rochester Community and Technical College is accredited by the National Cancer Registrars Association (NCRA).

## PROGRAM ENTRANCE REQUIREMENTS:

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](http://www.rctc.edu/admissions/html/application_form.html)
- Program Application: [http://www.rctc.edu/program/crm/pdfs/HIMC-Cancer\\_Admission\\_Application\\_Form\\_001.pdf](http://www.rctc.edu/program/crm/pdfs/HIMC-Cancer_Admission_Application_Form_001.pdf)

## **Notice of National Criminal Background Check Requirement**

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>

Revised: 09/07/2016

Implementation: Fall 2016

# RCTC PROGRAM PLAN

## CANCER REGISTRY MANAGEMENT

Certificate

### I. PROGRAM CORE REQUIREMENTS.....26 CREDITS

- HIMC 2110, Cancer Registry Organization, 3 cr
- HIMC 2115, Cancer Registry Operations, 3 cr
- HIMC 2120, Cancer Disease, Coding, and Staging, 4 cr
- HIMC 2125, Oncology Treatment and Coding, 4 cr
- HIMC 2130, Abstracting Methods, 4 cr
- HIMC 2135, Follow-up, Data Quality, and Utilization, 4 cr
- HIMC 2140, Professional Practice/Clinical Practicum, 4 cr

**TOTAL .....26 CREDITS**

### **ADDITIONAL NOTES:**

**Program Accreditation:** Rochester Community and Technical College is accredited by the National Cancer Registrars Association (NCRA).

### **PROGRAM ENTRANCE REQUIREMENTS:**

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](http://www.rctc.edu/admissions/html/application_form.html)
- Program Application: [http://www.rctc.edu/program/crm/pdfs/HIMC-Cancer\\_Admission\\_Application\\_Form\\_001.pdf](http://www.rctc.edu/program/crm/pdfs/HIMC-Cancer_Admission_Application_Form_001.pdf)
- Admission criteria: minimum of an Associate's degree with 5 prerequisite courses: Medical Terminology, Computerized Health Information, two semesters of anatomy and physiology (A&P) or a combination of one semester of anatomy and one semester of physiology or one semester of combined A&P and one semester of pathophysiology/pharmacology.

### **Notice of National Criminal Background Check Requirement**

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>

Revised: 08/22/2016

Implementation: Fall 2016

# PROGRAM OVERVIEW

## CARDIOVASCULAR INVASIVE SPECIALIST

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 cardiovascular 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*

Associate in Applied Science Degree, Cardiovascular Invasive Specialist Nursing, 63 credits. Graduates also awarded a Certificate of Completion by Mayo Clinic College of Medicine and Science.

### *Program Start Date(s)*

This program is jointly offered by RCTC and Mayo Clinic College of Medicine and Science and requires a separate application to Mayo Clinic College of Medicine and Science. 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 \$23-\$33 per hour or an average of \$46,500 + annually. Wages can vary depending on the employer and

geographic area. A graduate of the CVIS program typically works in a clinical environment located in a hospital or clinic setting. Many graduates work 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 a variety of healthcare professions.

### *Accreditations/Articulations*

The Higher Learning Commission accredits both Rochester Community and Technical College and Mayo Clinic College of Medicine and Science. Upon the recommendation of the Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT), the Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredits the Cardiovascular Invasive Specialist Program. For a current list of RCTC program articulations see us at:

[www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

Program Website: [www.mayo.edu/mshs/careers/cardiovascular-invasive-specialist/cardiovascular-invasive-specialist-minnesota/](http://www.mayo.edu/mshs/careers/cardiovascular-invasive-specialist/cardiovascular-invasive-specialist-minnesota/)

Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)



# RCTC PROGRAM PLAN

## CARDIOVASCULAR INVASIVE SPECIALIST

Associate in Applied Science

*An Affiliated Program with the Mayo Clinic 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 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 .....15 CR**

BIOL 1217, Anatomy and Physiology I, 4 cr

BIOL 1218, Anatomy and Physiology II, 4 cr

CHEM 1117, General, Organic and Biological Chemistry I, 4 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. PROGRAM CORE REQUIREMENTS.....41 CREDITS

Year 1: August-May (All courses are Mayo courses)

CVIS 1010, Introduction to Cardiology, 2 cr

CVIS 2020, Invasive Cardiology I, 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, 6 cr

CVIS 2040, Clinical, 6 cr

CVIS 2060, Diagnostic Imaging and Fluoroscopy, 2 cr

CVIS 2070, Internship, 12 cr

**TOTAL .....63 CREDITS**

# RCTC PROGRAM PLAN

## REGISTERED CARDIOVASCULAR INVASIVE SPECIALIST COURSE SEQUENCE

LENGTH: 21 months

### FALL SEMESTER (RCTC & MAYO)

BIOL 1217 4 cr  
CHEM 1117 4 cr  
PHYS 1103 3 cr  
CVIS 1010 2 cr

**TOTAL 13 cr**

### SPRING SEMESTER (RCTC & MAYO)

BIOL 1218 4 cr  
ENGL 1117 4 cr  
PHIL 1125/1135 3 cr  
CVIS 1020 2 cr

**TOTAL 13 cr**

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**TOTAL (YEAR 1)**

**26 cr**

### YEAR 2 JUNE-AUGUST (SUMMER SESSION)

CVIS 2010 4 cr  
CVIS 2020 5 cr  
CVIS 2060 2 cr

### YEAR 2 AUGUST–DECEMBER (FALL SEMESTER)

CVIS 2030 2 cr  
CVIS 2021 6 cr  
CVIS 2040\*\* 6 cr

### YEAR 2 JANUARY-MAY (SPRING SEMESTER)

CVIS 2070\*\* 12 cr

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**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 physio instrumentation and electronics associated with the cardiac laboratory environment.



# RCTC PROGRAM PLAN

Cardiovascular anatomy and physiology and pathophysiology concentrate on the structures, function, 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 Clinic School of Health Sciences Cardiovascular Invasive Specialist Program. The application for admission to the CVIS Program, Mayo Clinic School of Health Sciences must be obtained online

<http://www.mayo.edu/mshs/careers/cardiovascular-invasive-specialist/cardiovascular-invasive-specialist-minnesota/application-process>

or from the Mayo Clinic School of Health Sciences and submitted no later than March 1.

Following appointment to the program by the Mayo Clinic 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:**

- Required: High school diploma or equivalent.
- Basic computer competence or keyboarding
- High School biology and chemistry are required; High School physics is recommended or completion of the RCTC or college transfer equivalents
- High School algebra II and placement at an algebra course beyond this class on a college placement test of completion of RCTC MATH 0099 or the equivalent
- Graduation in the upper one-half of the high school graduating class with a 2.75 GPA or better.

*\*Science and math prerequisite courses must have been completed within five years of your application to the program.*

- College level reading skills and writing readiness as tested by ASAP or prior college course work.
- 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.

# RCTC PROGRAM PLAN

## **MORE INFORMATION REQUIREMENTS:**

**Registration and Sequence of Courses:** This is a 21-month program consisting of 63 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 Mayo Clinic College of Medicine and Science and the Mayo Clinic School of Health Sciences, and an Associate in Applied Science Degree by RCTC.

Revised: 12/28/2016

Implementation: Spring 2017

# PROGRAM OVERVIEW

## CARPENTRY

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 Carpentry Theory, Blueprint Reading and Estimating. Students practice proper use of hand and power tools, build footings and foundations, perform site layout, rough framing, siding and interior finish.

### *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.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## CARPENTRY

Diploma

### I. PROGRAM CORE REQUIREMENTS.....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 II, 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 II, 2 cr  
 CR 1636, Interior Finishing, 4 cr  
 CR 1638, Exterior Finishing II, 2 cr

**TOTAL .....32 CREDITS**

### **ADDITIONAL NOTES:**

**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.

**NOTE: Students must test at READ 0900 level before enrolling or obtain instructor permission.**

**Revised: 03/01/2012**

# PROGRAM OVERVIEW

## CHILD, YOUTH, AND FAMILY STUDIES

RCTC's Child, Youth, and Family Studies major prepares students for a meaningful career making a difference in the lives of others by supporting healthy development and well-being of others by providing assistance, resources, and high quality educational experiences to children, youth, and families in our diverse community.

### *Curriculum-at-a-Glance*

Coursework provides students with specialized education that focuses on the essential knowledge, skills, and dispositions needed to work effectively with children, youth, and families. Coursework includes Child Development, Health and Safety, Positive Guidance, Observing and Assessing, Human Diversity, Family Relations, Special Needs, Learning Environments, Curriculum Planning, and Professional Leadership. Students gain necessary skills and competencies through lab experiences, observing others in the field, and completing hands-on clinical experiences.

### *Program/Degree Options*

RCTC's Child, Youth, and Family Studies program offers two certificates, a diploma, and an AAS degree. The 19 credit certificate in Child Development program meets the Minnesota Department of Human Services (DHS) educational requirement for assistant teachers in child care centers. The 31 credit Child Development diploma option meets the minimum (DHS) educational requirements for teachers in child care centers. DHS Rule 3 requires additional work experience in order to be hired as an assistant teacher or teacher.

The 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 bachelor's degree in youth studies, child and youth studies, or youth ministry.

### *Program Start Date(s)*

Child, Youth, and Family Studies offers face-to-face, daytime and evening, hybrid, and online courses year

round. Full time students complete the diploma in as little as one year and the AAS degree within two years.

### *Career Opportunities/Information*

Child, Youth, and Family Studies graduates seek employment providing direct services to children, youth, and families. Employment opportunities include Head Start teacher, nursery school teacher, child care worker, family child care provider, after school site coordinator, paraprofessional, early childhood mental health worker, home visitor, family service worker, child advocate, youth worker, PCA, child care resource and referral specialist, or camp counselor. Many program graduates seek further education to earn a bachelor's degree in early childhood education, elementary education, early childhood special education, child development and family studies, youth studies, psychology, social work or human services.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at:  
[www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## 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 .....10 CR**

COMM 1114, Fundamentals of Public Speaking, 3 cr

COMM 2130, Team/Small Group Communications, 3 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 7: HUMAN DIVERSITY.....3 CR**

COMM 1130, Interpersonal Communication, 3 cr

**GOAL 8: GLOBAL PERSPECTIVE.....3 CR**

COMM 2100, Introduction to Intercultural Communication, 3 cr

SPAN 1001, Introduction to Hispanic Cultures, 3 cr

### II. PROGRAM CORE REQUIREMENTS.....44 CREDITS

CYFS 1001, Introduction to Working with Children, Youth, and Families, 3 cr

CYFS 1210, Child Growth and Youth Development, 3 cr

CYFS 1220, Health, Safety and Wellness, 3 cr

CYFS 1232, Positive Guidance and Social Emotional Development, 3 cr

CYFS 1235, Intentional Teaching Through Learning Environments, 3 cr

CYFS 1310, Infants, Toddlers and Families, 3 cr

**OR**

CYFS 1312, Preschool Development and Learning, 3 cr

**OR**

CYFS 2002, Introduction to Youth Work, 3 cr

CYFS 1320, Observing and Assessing, 3 cr

CYFS 1505, Family Relationships, 3 cr

CYFS 2250, Foundations of Language and Literacy, 3 cr

CYFS 2110, Diversity and Human Relations, 3 cr

CYFS 2600, Professional Leadership, 3 cr

CYFS 2630, Teaching Young Children with Special Needs, 3 cr

**OR**

CYFS 2640, Curriculum Planning, 2 cr

CYFS 2810, Practicum I, 3 cr

CYFS 2840, Practicum II, 3 cr

**TOTAL .....60 CREDITS**

# RCTC PROGRAM PLAN

## ADDITIONAL NOTES:

**PURPOSE:** The purpose of the Child, Youth, and Family Studies AAS degree is to provide specialized training and education to develop student's professional knowledge, skills, and dispositions to work with children, youth, and families in a variety of settings.

## 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=245C15>. Information about completing the background study will be available from program faculty.

Revised: 02/14/2017

Implementation: Fall 2017

# RCTC PROGRAM PLAN

## 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 THE SOCIAL AND BEHAVIORIAL SCIENCES ....minimum of 3 CR**

Three credits from MNTC Goal 5

**GOAL 6: 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. PROGRAM CORE REQUIREMENTS.....31 CREDITS

CYFS 1001, Introduction to Working With Children, Youth and Families, 3 cr

CYFS 1210, Child Growth and Youth Development, 3 cr

CYFS 1220, Health, Safety and Wellness, 3 cr

CYFS 1232, Positive Guidance and Social Emotional Development, 3 cr

CYFS 1235, Intentional Teaching Through Learning 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, 2 cr



# RCTC PROGRAM PLAN

**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

**IV. PROGRAM ELECTIVES .....4 CREDITS**

**Choose one of the following:**

CYFS 1310, Infants, Toddlers, and Families, 3 cr  
 CYFS 1312, Preschool Development and Learning, 4 cr  
 CYFS 1314, School-Age Principles and Practices, 4 cr

**TOTAL .....60 CREDITS**

**ADDITIONAL NOTES:**

**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=245C15>  
 Information about completing the background study will be available from program faculty.

Revised: 07/01/2012

Implementation: Spring 2013

# RCTC PROGRAM PLAN

## 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 BEHAVIORIAL 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. PROGRAM CORE REQUIREMENTS.....31 CREDITS

CYFS 1001, Introduction to Working with Children, Youth, and Families, 3 cr

CYFS 1210, Child Growth and Youth Development, 3 cr

CYFS 1220, Health, Safety and Wellness, 3 cr

CYFS 1232, Positive Guidance and Social Emotional Development, 3 cr

CYFS 1235, Intentional Teaching Through Learning 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

# RCTC PROGRAM PLAN

## IV. PROGRAM ELECTIVES.....3 CREDITS

### Choose one of the following:

- CYFS 2002, Introduction to Youth Work, 3 cr
- CYFS 2570, Multicultural Learning Experiences, 3 cr
- CYFS 2580, Creative Development Experiences, 3 cr
- CYFS 2640, Curriculum Planning, 3 cr

**TOTAL .....60 CREDITS**

### **ADDITIONAL NOTES:**

#### **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=245C15>. Information about completing the background study will be available from program faculty.

Revised: 03/05/2014

Implementation: Fall 2014

# RCTC PROGRAM PLAN

## 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 BEHAVIORIAL 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. PROGRAM CORE REQUIREMENTS.....31 CREDITS

CYFS 1001, Seeing Children and Youth, 3 cr

CYFS 1210, Child Growth and Youth Development, 3 cr

CYFS 1220, Health, Safety and Wellness, 3 cr

CYFS 1232, Positive Guidance and Social Emotional Development, 3 cr

CYFS 1235, Intentional Teaching Through Learning 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, 4 cr

CYFS 2002, Introduction to Youth Work, 4 cr

CYFS 2241, Experiential Learning, 4 cr

# RCTC PROGRAM PLAN

## IV. PROGRAM ELECTIVES.....3 CREDITS

### Choose one of the following:

CYFS 2630, Creative Development Experiences, 3 cr

CYFS 2640, Curriculum Planning, 3 cr

**TOTAL .....60 CREDITS**

### **ADDITIONAL NOTES:**

#### **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=245C15>. Information about completing the background study will be available from program faculty.

Revised: 07/01/2012

Implementation: Fall 2013

# PROGRAM OVERVIEW

## CLINICAL NEUROPHYSIOLOGY TECHNOLOGY

The Clinical Neurophysiology Technology Program at Mayo Clinic offers training to prepare competent entry-level neurodiagnostic technologists. 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. Neurodiagnostic 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*

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*

Associate in Applied Science (AAS) degree, 81 credits.

Certificate of Completion awarded by the Mayo Clinic College of Medicine and Science.

Graduates are eligible to take professional certification examinations given by Neurodiagnostic Credentialing and Accreditation (ABRET), American Association of Electrodiagnostic Technologists (AAET), American Board of Electrodiagnostic Medicine (ABEM) and the Board of Registered Polysomnographic Technologists (BRPT). Students are required to take EEG examination Part 1 prior to graduation.

### *Program Start Date(s)*

This program is jointly offered by RCTC and Mayo Clinic College of Medicine and Science and requires a separate application to Mayo Clinic School of Health Sciences. General course work can be started any semester. To complete the program in 24 months, students must start the CNT program and related coursework fall semester

### *Career Opportunities/Information*

Career opportunities for neurodiagnostic 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 \$47,000. Salary is dependent upon location and employer.

### *Accreditations/Articulations*

The Higher Learning Commission accredits both Rochester Community and Technical College and Mayo Clinic College of Medicine and Science. Upon the recommendation of the Joint Review Committee on Education in Cardiovascular Technology (JRC-CVT), the Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredits the Clinical Neurophysiology Technology Program.

For a current list of RCTC program articulations see us at: [www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

Program Website: [www.mayo.edu/mshs/careers/clinical-neurophysiology-technology/clinical-neurophysiology-technology-program-minnesota](http://www.mayo.edu/mshs/careers/clinical-neurophysiology-technology/clinical-neurophysiology-technology-program-minnesota)

Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)



# RCTC PROGRAM PLAN

## CLINICAL NEUROPHYSIOLOGY TECHNOLOGY

Associate in Applied Science

*An Affiliated Program with the Mayo Clinic School of Health Sciences*

### 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 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 .....12 CR**

BIOL 1110, Human Biology, 4 cr

BIOL 1216, Anatomy and Physiology of the Nervous and Respiratory Systems, 2 cr

CHEM 1101, Elements of Chemistry, 3 cr

PHYS 1103, Principles of Physics, 3 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 AND PHILOSOPHY .....3 CR**

**RECOMMENDED:**

PHIL 1135, Bioethics, 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, 1 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

# RCTC PROGRAM PLAN

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 .....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 1135	Ethics	3 cr
PHYS 1103	Principles of Physics	3 cr
CNT 1101	Orientation to CNT	3 cr
<b>TOTAL</b>		<b>16 CR</b>

### 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
	<b>OR PSYC 2618 General Psychology</b>	4 cr
COMM 1114	Fundamentals of Public Speaking	3 cr
CNT 1102	CNT Techniques EEG	2 cr
CNT 1103	CNT Techniques NCS	2 cr
CNT 1110	CNT Instrumentation	2 cr
<b>TOTAL</b>		<b>18 CR</b>

### SUMMER SESSION (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	1 cr
<b>TOTAL</b>		<b>13 CR</b>



# RCTC PROGRAM PLAN

**YEAR 2 THESE COURSES WILL BE TAKEN DURING THE FALL, SPRING, AND SUMMER SEMESTERS AT MAYO CLINIC SCHOOL OF HEALTH SCIENCES: 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*	3 cr
<b>TOTAL</b>		<b>34 CR</b>

**\*\* 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 Clinic School of Health Sciences. The application for admission is online and must be obtained from the Mayo Clinic School of Health Sciences and submitted no later than **February 1**. The online application may be accessed at <http://www.mayo.edu/mshs/careers/clinical-neurophysiology-technology/clinical-neurophysiology-technology-program-minnesota>. Following appointment to the program by the Mayo Clinic School of Health Sciences, students must

# RCTC PROGRAM PLAN

apply to RCTC. Admission is competitive. It is based on previous education, work experience, goal statement, letters of reference, and interview.

## **PROGRAM ENTRANCE REQUIREMENTS:**

- 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.

### Biology\* and Chemistry\* and Mathematics\*

- 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.
- GPA: Applicants with some college-level courses completed should have at least a 2.8 GPA or higher.

## **JOB SHADOW:**

- Required: Contact Jan W. Buss at [Buss.Jan@mayo.edu](mailto:Buss.Jan@mayo.edu) to schedule a job shadow. This experience must be scheduled and completed before the **Feb. 1** application deadline. Be prepared to show evidence that you have met these prerequisites.

## **COMPUTER SKILLS:**

- Required: Must demonstrate above-average competency in computer skills. Must be able to use a computer for online curriculum and patient care activities. For students without basic computer skills upon entering the program, a computer course may be required.

# RCTC PROGRAM PLAN

## **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 spring semester of first year 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 Clinic School of Health Sciences and an Associate in Applied Science Degree by RCTC.

Revised: 12/28/2016

Implementation: Spring 2017

# PROGRAM OVERVIEW

## COACHING

The Coaching Diploma program meets the criteria for any individual who wishes to coach at the varsity level related to interscholastic sports in Minnesota. This program includes an in-depth look into philosophies, strategies and tactics for coaching any sport and providing positive experiences for student-athletes of all ages. 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, as well as, strategic sport specific theory. Upon completion of the program's coursework an internship is also required.

### *Program/Degree Options*

Coaching Diploma  
Related Field Programs  
Sport Management, Personal Trainer  
Group Fitness Instructor

### *Program Start Date(s)*

Students may begin coursework any semester. However not all courses are 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.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by the Higher Learning Commission, American Sport Educator's Program (ASEP)

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## COACHING

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 and Physiology, 4 cr

BIOL 1110, Human Biology, 4 cr

BIOL 1217, Anatomy and Physiology I, 4 cr

### II. PROGRAM CORE REQUIREMENTS.....23-24 CREDITS

HLTH 1114, Responding to Emergencies, 3 cr

PHED 2249, Prevention and Care of Athletic Injuries I, 3 cr

PHED 2252, Sport Psychology, 3 cr

PHED 2253, Sport Nutrition for Performance, 3 cr

PHED 2261, Officiating Principle, 3 cr

PHED 2270, Introduction to Physical Education, 2 cr

PHED 2271, Coaching Principles, 3 cr

**OR**

PHED 2280, Introduction to Sports Facility Management, 3 cr

PHED 2295, Sport Internship I, 3 cr

### III. ELECTIVES.....3-4 CREDITS

**Choose a 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 a 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: 03/18/2016; Implementation: Fall 2016

# PROGRAM OVERVIEW

## COMMUNICATION STUDIES

Minnesota and national employer data indicates that strong communication skills in areas such as interpersonal (one-on-one) communication, conflict management, interviewing, public speaking, and team/group interaction are crucial to success in the workplace. In addition, employers note that communicating effectively between cultures, generations, and genders is important, especially in the rapidly changing mediated communication world (texting, emails). These certificates offer a broad depth and breadth of knowledge and skills in the communication field. The Workplace Communication Certificate differentiates job applicants from others in their field by demonstrating that they are proficient in the art of communication. The Certificate in Communication Studies builds a solid foundation for further study in Communication for students who plan to transfer to four-year institutions by offering a broad spectrum of communication theory and application.

### *Curriculum-at-a-Glance*

Coursework may include: Interpersonal Communication, Public Speaking, Intercultural Communication, Team/Small Group Communication, and Career Communication.

### *Program/Degree Options*

RCTC offers two Communication Studies certificate options: the Workplace Communication Certificate (9 credits) and the Communication Studies Certificate (16 credits).

### *Program Start Date(s)*

Students can start coursework any semester and all courses are offered online. Only one section of some courses are offered every semester so students are encouraged to meet with program advisors to plan ahead.

### *Career Opportunities/Information*

While there is no specific occupation that this certificate serves, Minnesota and national employer data indicates employers are looking for, but not finding, communication training in the following areas: interpersonal communication skills, team/group communication skills, conflict management skills, presentation skills, and interviewing skills. This program will strengthen skills in the areas above.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/comm](http://www.rctc.edu/program/comm)  
Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)  
More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible.

The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## COMMUNICATION STUDIES

Certificate

### I. PROGRAM CORE REQUIREMENTS.....12 CREDITS

COMM 1114, Fundamentals of Public Speaking, 3 cr  
 COMM 1130, Interpersonal Communication, 3 cr  
 COMM 2100, Intercultural Communication, 3 cr  
 COMM 2130, Team/Small Group Communication, 3 cr

### II. ADDITIONAL REQUIREMENTS.....4 CREDITS

**Select four credits from the courses listed below:**

COMM 2214, Career Communication, 3 cr  
 COMM 2299, Special Topics in Communication Studies, 1-3 cr  
 ENGL 1117, Reading and Writing Critically I, 4 cr

**TOTAL .....16 CREDITS**

#### **ADDITIONAL NOTES:**

**PURPOSE:** The Communication Studies Certificate is based on practical application of communication theory. Employers surveyed often report teamwork, conflict management skills, oral communication, and interpersonal skills are crucial to success in the workplace. This certificate offers a broad depth and breadth of knowledge and skills in the Communication field.

The Communication Studies Certificate can also build a solid foundation for further study in Communication for students who plan to transfer to four-year institutions by offering a broad spectrum of communication theory and application.

Implementation: Fall 2014

# PROGRAM OVERVIEW

## COMMUNITY HEALTH WORKER

RCTC's Community Health Worker program is designed to prepare students for careers as liaisons between clients and health 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. The CHW certificate can also offer students a pathway to advance their academic careers in other health- and social services-related fields such as community health, nursing, medical assistant, social work and more.

### *Curriculum-at-a-Glance*

You will develop critical thinking skills 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 certificate program designed to be completed in one semester.

### *Program Start Date(s)*

The Community Health Worker program is offered in a cohort model. Contact Business and Workforce Education at [www.rctc.edu/workforce](http://www.rctc.edu/workforce) for program dates. Students must attend full-time to complete the program in one 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 in a variety of health care and community-based settings, providing first line support in bridging the gap between distinct communities and health and social care systems. They work to increase access to health care and social service organizations, improve access to health care for diverse populations, improve quality of care for chronically ill, promote healthy communities and educate families about access to and use of health care coverage. As demand increases, community health workers may be employed by entities such as health care facilities, dental offices, non-profits, county health and human service agencies, schools, community mental health centers, senior centers, faith-based programs as well as occupational health and safety departments in business and unions.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)





# RCTC PROGRAM PLAN

## 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:

- BTEC 1020, Keyboarding for Computer, 1 cr
- COMM 1130, Interpersonal Communication, 3 cr
- FYEX 1000, College Success Strategies, 1 cr

**TOTAL .....16-17 CREDITS**

#### **ADDITIONAL NOTES:**

**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.

#### **PROGRAM ENTRANCE REQUIREMENTS:**

##### **PREREQUISITES:**

- CHW 1000 - Placement in READ 0900.
- CHW 1010 - Successful completion of CHW 1000.
- CHW 1020 - CHW 1000 and CHW 1010.
- CHW 1030 - CHW 1000, CHW 1010 and CHW 1020.
- CHW 1040 - CHW 1000, CHW 1010, CHW 1020 and CHW 1030.
- CHW 1050 - CHW 1000, CHW 1010, CHW 1020, CHW 1030 and CHW 1040.
- CHW 1055 - CHW 1000, CHW 1010, CHW 1020, CHW 1030 and CHW 1040.
- CHW 1060 - CHW 1000, CHW 1010, CHW 1020, CHW 1030, CHW 1040, CHW 1050 and CHW 1055.

Revised: 01/22/2012

# PROGRAM OVERVIEW

## COMPUTER INFORMATION SYSTEMS / COMPUTER SCIENCE / BIOINFORMATICS FOUNDATIONS

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

### *Curriculum-at-a-Glance*

The AS degrees in Computer Science, Computer Information Systems, and Bioinformatics Foundations require Computer Science Concepts, Programming & Problem Solving and Algorithms & Data Structures. These AS 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).

### *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.

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>



# RCTC PROGRAM PLAN

## COMPUTER INFORMATION SYSTEMS

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....37 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 .....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 and Economics, 3 cr

**OR**

MATH 1127, Calculus I, 5 cr

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORAL SCIENCES .....11 CR**

PSYC 1611, Psychology of Adjustment, 3 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....6 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

**II. PROGRAM CORE REQUIREMENTS.....23 CREDITS**

ACCT 2217, Principles of Accounting I, 4 cr

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 Mathematics, 4 cr

MATH 2350, Introduction to Mathematical Statistics, 4 cr

**TOTAL .....60 CREDITS**

Revised: 08/01/2012

Implementation: Spring 2013

# RCTC PROGRAM PLAN

## COMPUTER SCIENCE

Associate in Science

<b>I. MINNESOTA TRANSFER CURRICULUM (MNTC)/</b>	
<b>GENERAL EDUCATION REQUIREMENTS.....</b>	<b>40 CREDITS</b>
<b>GOAL 1: WRITTEN AND ORAL COMMUNICATION .....</b>	<b>11 CR</b>
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	
<b>GOAL 2: CRITICAL THINKING MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS</b>	
<b>GOAL 3: NATURAL SCIENCES .....</b>	<b>6 CR</b>
Choose two courses with labs from two different areas from MNTC Goal 3	
<b>GOAL 4: MATHEMATICS/LOGICAL REASONING.....</b>	<b>5 CR</b>
MATH 1127, Calculus I, 5 cr	
<b>GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....</b>	<b>3 CR</b>
PSYC 1611, Psychology of Adjustment, 3 cr	
<b>GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....</b>	<b>6 CR</b>
Choose a minimum of two credits from two different areas from MNTC Goal 6	
<b>MNTC ELECTIVES.....</b>	<b>6 CR</b>
Choose credits from approved MNTC courses	
<b>II. PROGRAM CORE REQUIREMENTS.....</b>	<b>19-20 CREDITS</b>
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 Mathematics, 4 cr	
MATH 2350, Introduction to Mathematical Statistics, 4 cr	
<b>OR</b>	
MATH 1128, Calculus II, 5 cr	
<b>III. OPEN ELECTIVES.....</b>	<b>1 CREDITS</b>
Physical Education course recommended	
<b>TOTAL .....</b>	<b>60 CREDITS</b>

Revised: 08/01/2012

Implementation: Spring 2013

# RCTC PROGRAM PLAN

## 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 for Business Majors, 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**

**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 Mathematics, 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

# PROGRAM OVERVIEW

## CRIMINAL JUSTICE

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 Criminal Justice, Introduction to Corrections, Community Corrections, Introduction to Criminal Investigations, Police Report Writing, Minnesota Criminal Statutes & Minnesota Traffic Statutes, Juvenile Law & Procedures, Human Behavior and Ethics for Law Enforcement, and Criminal Procedure.

### *Program/Degree Options*

RCTC's Criminal Justice program is an Associate in Science (AS) degree (60 credits) 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. Criminal Justice-related careers may be in the areas of corrections, security, or law enforcement.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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

### *Additional Information*

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



# RCTC PROGRAM PLAN

## CRIMINAL JUSTICE

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....30 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....11 CR**

COMM 1130, Interpersonal Communication, 3 cr

ENGL 1117, Reading and Writing Critically I, 4 cr

ENGL 1118, Reading and Writing Critically II, 4 cr

**GOAL 3: NATURAL SCIENCES.....3 CR**

Credits from MNTC Goal 3

**GOAL 4: MATHEMATICS/LOGICAL REASONING .....3 CR**

Credits from MNTC Goal 4

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORAL SCIENCES .....10 CR**

PSYC 2618, General Psychology, 4 cr

SOC 1614, Introduction to Sociology, 3 cr

SOC 2625, Minority Group Relations, 3 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

Credits from MNTC Goal 6

### II. PROGRAM CORE REQUIREMENTS.....30 CREDITS

CRJU 1215, Homeland Security/Defense, 3 cr

CRJU 1305, Introduction to Criminal Justice, 3 cr

CRJU 1308, Introduction to Corrections, 3 cr

CRJU 2315, Community Corrections and Probation, 3 cr

LAW 1112, Introduction to Criminal Investigations, 4 cr

LAW 2110, Police Report Writing, 2 cr

LAW 2119, Minnesota Criminal and Traffic Statutes, 3 cr

LAW 2121, Human Behavior and Ethics in Law Enforcement, 3 cr

LAW 2122, Criminal Procedure, 3 cr

LAW 2127, Juvenile Law and Procedures, 3 cr

**TOTAL .....60 CREDITS**

Revised: 11/08/2016

Implementation: Fall 2017

# PROGRAM OVERVIEW

## DENTAL ASSISTANT

A dental assistant is a vital member of the dental health team and enjoys a broad range of exciting and challenging duties. Minnesota licensed dental assistants function as "dental nurses" in the dental practice, providing direct support to the dentist as well as providing direct patient care.

The job description of a dental assistant includes: patient communications and oral hygiene instruction, preparation of instruments and treatment rooms, chairside assisting, expanded functions, instrument recirculation and sterilization, dental laboratory procedures, dental safety 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 tooth polishing, taking radiographs, applying dental sealants, taking impressions, tying in orthodontic wires, fabricating temporary restorations 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 professionalism required to make the graduate a valuable member of the dental health care profession.

### *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, where patients come 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 a 47 credit diploma option and a 64 credit Associate in Applied Science degree option, both of which may be completed in one or two years. There are different delivery options available and they are detailed on the Dental Assistant Program application form.

It should be noted that 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 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*

Dental Assisting is a career that is in high demand and includes excellent work schedules, attractive compensation packages and pleasant work environments. The 2016 RCTC Dental Assisting graduates reported starting salaries between \$19 and \$26 per hour. A dental assistant may be employed in a general dental practice or specialty dental practice (ie. Pediatric Dentistry, Orthodontics, Oral and Maxillo-Facial Surgery, Endodontics, Periodontics and Prosthodontics). Dental assistants may also be employed in solo or group dental practices, hospital dentistry, research institutions, government dental facilities, or dental training facilities.

### *Accreditations/Articulations*

The RCTC Dental Assistant program is accredited by the ADA commission on Dental Accreditation. For more information on the most current list of RCTC program articulations see us at: [www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

Program Website/Program Application: [www.rctc.edu/program/da/](http://www.rctc.edu/program/da/)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/).





# RCTC PROGRAM PLAN

## 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 COMMUNICATION .....7 CR**

COMM 1114, Fundamentals of Public Speaking, 3 cr

**OR**

COMM 1130, Interpersonal Communications, 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 .....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 AND PHILOSOPHY .....3 CR**

Credits from MNTC Goal 6

### II. PROGRAM CORE 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 II, 7 cr

\*DA 1270, Expanded Functions II, 1 cr

\*DA 1280, Dental Assisting Internship, 7 cr

\*DS 1300, Dental Radiology, 3 cr

**TOTAL .....81 CREDITS**

# RCTC PROGRAM PLAN

## **ADDITIONAL NOTES:**

**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>.

## **MORE INFORMATION REQUIREMENTS:**

(\*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.)

## **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.

Revised: 03/01/2012

# RCTC PROGRAM PLAN

## DENTAL ASSISTANT: EXPANDED FUNCTION OPTION

Certificate

*Program Approval: Expanded Functions curriculum is approved by the Minnesota Board of Dentistry.*

### I. PROGRAM CORE REQUIREMENTS.....13 CREDITS

DA 1225, Dental Infection Control, 2 cr

\*DA 1265, Expanded Functions II, 7 cr

\*DA 1270, Expanded Functions II, 1 cr

\*DS 1300, Dental Radiology, 3 cr

**TOTAL .....13 CREDITS**

### ADDITIONAL NOTES:

**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.

### MORE INFORMATION REQUIREMENTS:

(\*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.)

### 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.

Revised: 08/01/2012

# RCTC PROGRAM PLAN

## 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. PROGRAM CORE 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 II, 7 cr
- \*DA 1270, Expanded Functions II, 1 cr
- \*DA 1280, Dental Assisting Internship, 7 cr
- \*DS 1300, Dental Radiology, 3 cr

**TOTAL .....47 CREDITS**

### ADDITIONAL NOTES:

**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 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.

For more information on program admission requirements, please see the department website at <http://www.rctc.edu/program/da/admission.html>.

# RCTC PROGRAM PLAN

## **MORE INFORMATION REQUIREMENTS:**

(\*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.)

### **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.

Revised: 08/01/2012

# PROGRAM OVERVIEW

## 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 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 good and positions offer very competitive salary and benefits.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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 and Metropolitan State University.

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>



# RCTC PROGRAM PLAN

## DENTAL HYGIENE

Associate in 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**

COMM 1114, Fundamentals of Public Speaking, 3 cr OR

COMM 1130, Interpersonal Communications, 3 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 .....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, Organic and Biological Chemistry I, 4 cr

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL 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 AND PHILOSOPHY .....3 CR**

Credits from MnTC Goal 6

### II. PROGRAM CORE REQUIREMENTS.....51 CREDITS

BIOL 1211, Principles of Nutrition, 3 cr

DH 1510, Principles of Dental Hygiene I, 2 cr

DH 1511, Dental Hygiene Practice I, 3 cr

DH 1512, Oral Anatomy, 4 cr

DH 1520, Principles of Dental Hygiene, II, 2 cr

DH 1521, Dental Hygiene Practice II, 5 cr

DH 1523, Oral Pathology, 2 cr

DH 1524, Periodontology, 2 cr

DH 2530, Principles of Dental Hygiene III, 3 cr

DH 2531, Dental Hygiene Practice III, 6 cr

DH 2532, Pain Control, 2 cr

DH 2533, Dental Pharmacology, 2 cr

DH 2540, Principles of Dental Hygiene IV, 3 cr

DH 2541, Dental Hygiene Practice IV, 6 cr

DH 2542, Community Dental Health, 3 cr

DS 1300, Dental Radiology, 3 cr

**TOTAL .....83 CREDITS**

# RCTC PROGRAM PLAN

## **ADDITIONAL NOTES:**

**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.

## **PROGRAM ENTRANCE REQUIREMENTS:**

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.

## **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.

**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



# PROGRAM OVERVIEW

## EMERGENCY MEDICAL TECHNOLOGY

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.

### *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*

Certificate, 24 credits.

This program is also designed to meet the academic prerequisites of the Emergency Paramedic Program.

### *Program Start Date(s)*

Course work can start at any semester.

### *Career Opportunities/Information*

Employment of emergency medical technicians and paramedics is expected to grow 9% 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.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

For a current list of RCTC program articulations see us at: [www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

Program Website: [www.rctc.edu/program/emt/](http://www.rctc.edu/program/emt/)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## EMERGENCY MEDICAL TECHNOLOGY

Certificate

### 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 .....8 CR**

BIOL 1107, Fundamentals of Anatomy and Physiology, 4 cr

CHEM 1117, General, Organic and Biological Chemistry I, 4 cr

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....4 CR**

PSYC 2618, General Psychology, 4 cr

### II. PROGRAM CORE REQUIREMENTS.....8 CREDITS

EMT 1200, Emergency Medical Technician: Basic, 8 cr

**TOTAL .....24 CREDITS**

### ADDITIONAL NOTES:

**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 Emergency Medicine Paramedic Program.

### 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: 11/15/2014

Implementation: Spring 2015

# PROGRAM OVERVIEW

## EMERGENCY MEDICINE PARAMEDIC

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*

Associate in Science Degree, 75 credits.

An Advanced Standing option is also available to working paramedics who are interested in completing their Associate in Science Degree.

### *Program Start Date(s)*

This program is jointly offered by RCTC and Mayo Clinic College of Medicine and Science and requires a separate application to Mayo Clinic School of Health Sciences. Applicants must be currently state certified and nationally registered as an EMT-Basic or Intermediate. Students can begin general education requirements any semester.

### *Career Opportunities/Information*

Employment of emergency medical technicians and paramedics is expected to grow 9% 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 Medicine Paramedic positions are part of ALS ambulances, fire department based ALS, rural EMS services, hospitals, EMS education, fixed wing and helicopter services.

### *Accreditations/Articulations*

The Higher Learning Commission accredits both Rochester Community and Technical College and Mayo Clinic College of Medicine and Science.

The MSHS Emergency Medicine Paramedic Program has pending accreditation by the Commission on the Accreditation of Allied Health Education Programs ([www.caahep.org](http://www.caahep.org)) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP)

### *Additional Information*

Program Website:

[www.mayo.edu/mshs/careers/emergency-medicine](http://www.mayo.edu/mshs/careers/emergency-medicine)

Program Plan:

[www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information:

[www.rctc.edu/contact/](http://www.rctc.edu/contact/)



# RCTC PROGRAM PLAN

## EMERGENCY MEDICINE PARAMEDIC

Associate in Science

*Affiliated with the Mayo Clinic School of Health Sciences*

- I. MINNESOTA TRANSFER CURRICULUM (MNTC)/**  
**GENERAL EDUCATION REQUIREMENTS.....32 CREDITS**  
**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....7 CR**  
 COMM 1114, Fundamentals of Public Speaking, 3 cr  
OR  
 COMM 1130, Interpersonal Communications, 3 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 .....12 CR**  
 BIOL 1217, Anatomy and Physiology I, 4 cr  
 BIOL 1218, Anatomy and Physiology II, 4 cr  
 CHEM 1117, General, Organic and Biological Chemistry I, 4 cr
- GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL 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
- II. PROGRAM CORE REQUIREMENTS.....40 CREDITS**  
 EMPP 1101, Paramedic Prep, 3 cr  
 EMPP 1105, Paramedic Internship I, 3 cr  
 EMPP 1205, Paramedic Internship II, 2 cr  
 EMPP 1230, Principles of Pharmacology, 4 cr  
 EMPP 1240, Paramedic Prep II, 3 cr  
 EMPP 1250, Cardiology and Pulmonology, 4 cr  
 EMPP 1255, Field Internship III, 2 cr  
 EMPP 2105, Paramedic Internship IV, 3 cr  
 EMPP 2110, Medical Emergencies II, 4 cr  
 EMPP 2120, Shock/Trauma, 3 cr  
 EMPP 2205, Field Internship V, 2 cr  
 EMPP 2210, Medical Emergencies II, 3 cr  
 EMPP 2230, Simulation In-Situ Skills, 1 cr  
 EMPP 2250, Paramedic Prep III, 3 cr
- III. ELECTIVES.....3 CREDITS**  
 HLTH 1108, Weight Management Through Nutrition and Fitness, 3 cr  
 HLTH 1111, Health Education, 3 cr

# RCTC PROGRAM PLAN

HLTH 1132, Drug Use and Abuse, 3 cr

MATH 1115, College Algebra, 3 cr

PHED 1105, Lifetime Fitness, 3 cr

**TOTAL.....75 CREDITS**

## **ADDITIONAL NOTES:**

**PURPOSE:** As the most highly trained pre-hospital care provider in EMS, the paramedic accepts the challenging responsibility for patient care. Para medicine is a relatively young field with a wide range of employment opportunities.

**APPLICATION TO THE PROGRAM:** Students are admitted into this program through the Mayo Clinic School of Health Sciences Emergency Medicine Paramedic Program. The application for admission to Mayo Clinic School of Health Sciences must be obtained online (<http://www.mayo.edu/mshs/careers/emergency-medicine>) no later than **April 1**.

Following appointment to the program by the Mayo Clinic School of Health Sciences, students must apply to RCTC for those enrolled in the Associate Degree track.

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:**

- Required: High school diploma or GED (equivalent acceptable) or be a high school senior who expects to graduate by the time the program begins.
- Enrollment at RCTC.
- Elementary Algebra (MATH 0098) with a "C" or better or equivalent.
- Three credits of college composition, ENGL 1117 or higher suggested.
- State certified and nationally registered as an EMT-Basic or Intermediate.

*\*Biology and Chemistry courses must have been completed within five years of your application to the program.*

## **MORE INFORMATION REQUIREMENTS:**

**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](http://www.rctc.edu/services/health/health-forms.html)
- Complete the State of Minnesota Background Study Form (completed during the first week of the semester).

## **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>**

Revised: 12/28/2016

Implementation: Spring 2017

# PROGRAM OVERVIEW

## ENGINEERING

RCTC offers an Associate in Science (AS) degree in Engineering. After completion, students normally transfer to a 4 year institution to complete a BS degree in a chosen field of engineering. Options then include immediate employment (most engineering jobs require a bachelor's degree) or graduate study.

### *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 (AS) 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. 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.).

### *Program Start Date(s)*

Students can begin general education requirements any semester.

### *Career Opportunities/Information*

After completing the Engineering AS at RCTC followed by a bachelor's degree in engineering, students will be qualified for most engineering job opportunities. There is projected to be a growing need for engineers in Minnesota, including as high as a 40.6% projected increase in demand for software engineers.\*

\*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.

The Laboratory Science program has an articulation agreement to serve as the first two years of a Bachelor of Science (B.S.) degree in Engineering through the University of Minnesota – Twin Cities and MSU - Mankato.

### *Additional Information*

Program Website: [www.rctc.edu/program/engineering/](http://www.rctc.edu/program/engineering/)

Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information: <http://www.rctc.edu/contact/>



# RCTC PROGRAM PLAN

## ENGINEERING

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 .....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 THE SOCIAL AND BEHAVIORIAL SCIENCES .....6 CR**

Credits from MNTC Goal 5

**GOAL 6: 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. PROGRAM CORE REQUIREMENTS.....20 CREDITS

MATH 1128, Calculus II, 5 cr

MATH 2237, Multivariable and Vector Calculus, 5 cr

MATH 2238, Differential Equations and 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](http://www.roch.edu/dept/sci/engineering/advising.htm).

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



# RCTC PROGRAM PLAN

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**

## **ADDITIONAL NOTES:**

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](http://www.roch.edu/dept/sci/engineering/advising.htm)

## **MORE INFORMATION REQUIREMENTS:**

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

Implementation: Fall 2012



# PROGRAM OVERVIEW

## ENVIRONMENTAL SCIENCE

RCTC offers an Associate in Science (AS) degree in Environmental Science, which prepares students for jobs in the environmental sciences and includes excellent internship opportunities for our students. The program provides students with foundational coursework to transfer into four-year Bachelor of Science (BS) degree programs in environmental science-related and biological fields of study.

### *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, and Written and Oral Communication.

### *Program/Degree Options*

RCTC offers an Associate in Science (AS) degree in Environmental Science. It can be completed in two years with proper planning of science lab coursework.

### *Program Start Date(s)*

Students can begin general education requirements any semester. 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. Working with an academic advisor or

### *Career Opportunities/Information*

Graduates may seek employment opportunities as environmental science technicians, biological technicians, or forest and conservation technicians or continue their education for a wide range of opportunities and career tracks in environmental science related fields.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

The Environmental Science program has articulation agreements to serve as the first two years of a Bachelor of Science (B.S.) degree in Biology (Environmental Science option) offered at Winona State University, in Environmental Sciences at University of Minnesota-Crookston, and in Environmental Science at University of Wisconsin-River Falls.

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

### *Additional Information*

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



# RCTC PROGRAM PLAN

## ENVIRONMENTAL SCIENCE

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....31 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 .....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 cr

**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**

**Choosing 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. PROGRAM CORE REQUIREMENTS.....29 CREDITS

BIOL 1230, Survey of Life Forms, 5 cr

BIOL 1300, Biological Applications of GIS Technology, 3 cr

BIOL 1310, Environmental Science Seminar, 2 cr

**OR**

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:**

CHEM 1127, Chemical Principles I and CHEM 1128, Chemical Principles II, 8 cr

**OR**

PHYS 1117, Introductory Physics I and PHYS 1118, Introductory Physics II, 8 cr

**TOTAL .....60 CREDITS**

Revised: 03/14/2017; Implementation: Fall 2017

# PROGRAM OVERVIEW

## EQUINE SCIENCE

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

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.

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.

The purpose of the Certificate in Equine Studies is to provide an equine curriculum that can be tailored to the individual needs of students. The certificate can be used to improve the current employment status, an existing business, skills or knowledge related to equine science. In addition, students may choose to use this certificate in order to pursue a lifelong learning experience in equine science. Students taking this certificate should work closely with a faculty member or advisor in selecting courses.

### *Curriculum-at-a-Glance*

Depending on the option selected coursework may include: Introduction to Equine Science, Equine Nutrition, Western Horsemanship, English Equitation, Colt Starting, Equine Anatomy and Physiology, and Equine Business Practices.

### *Program/Degree Options*

RCTC offers several credential options in Equine Science. There are two year and one year options. In addition, an AS Degree is pending approval.

### *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. 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.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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:  
[www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/).

### *Additional Information*

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



# RCTC PROGRAM PLAN

## EQUINE SCIENCE: HORSE HUSBANDRY

Certificate

### I. PROGRAM CORE REQUIREMENTS.....20 CREDITS

EQSC 1014, Horse Management, 4 cr  
 EQSC 1100, Introduction to Equine Science, 3 cr  
 EQSC 1103, Equine Anatomy, Physiology and Disease Management, 3 cr  
 EQSC 1119, Equine Science Co-op, 1 cr  
 EQSC 1121, Equine Business Management and Careers, 3 cr  
 EQSC 1122, Horse Nutrition, 3 cr  
 EQSC 2223, Equine Science Internship, 3 cr

**TOTAL .....20 CREDITS**

### **ADDITIONAL NOTES:**

**PURPOSE:** The purpose of the Certificate in Equine Science Horse Husbandry is to provide skills and knowledge that prepare students for careers in barn management, horse care, and/or business management. Students will have the skills to manage their own business, work for other professionals or pursue advanced training.

Revised: 03/14/2017

Implementation: Fall 2017

# RCTC PROGRAM PLAN

## EQUINE SCIENCE: RIDING AND TRAINING

Diploma

### I. PROGRAM CORE REQUIREMENTS.....35 CREDITS

EQSC 1014, Horse Management, 4 cr  
 EQSC 1100, Introduction to Equine Science, 3 cr  
 EQSC 1103, Equine Anatomy, Physiology and Disease Management, 3 cr  
 EQSC 1105, Colt Starting, 5 cr  
 EQSC 1113, Western Horsemanship, 5 cr  
 EQSC 1114, English Equitation, 5 cr  
 EQSC 1118, Teaching Techniques and Event Planning, 3 cr  
 EQSC 1119, Equine Science Co-op, 1 cr  
 EQSC 1121, Equine Business Management and Careers, 3 cr  
 EQSC 1122, Horse Nutrition, 3 cr

**TOTAL .....35 CREDITS**

### **ADDITIONAL NOTES:**

**PURPOSE:** The purpose of the Diploma in Equine Science Riding and Training is to provide one year of intensive equine science 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 pursue horsemanship as a lifelong learning experience.

Revised: 03/14/2017

Implementation: Fall 2017

# RCTC PROGRAM PLAN

## EQUINE STUDIES

Certificate

### I. PROGRAM CORE REQUIREMENTS.....11 CREDITS

EQSC 1014, Horse Management, 4 cr  
EQSC 1100, Introduction to Equine Science, 3 cr  
EQSC 1119, Equine Science Co-op, 1 cr

#### Choose three credits from the following:

EQSC 1103, Equine Anatomy, Physiology and Disease Management, 3 cr  
EQSC 1113, Western Horsemanship, 5 cr  
EQSC 1114, English Equitation, 5 cr  
EQSC 1118, Teaching Techniques and Event Planning, 3 cr  
EQSC 1121, Equine Business Management and Careers, 3 cr  
EQSC 1122, Horse Nutrition, 3 cr  
EQSC 2223, Equine Science Internship, 3 cr

### TOTAL .....11 CREDITS

#### ADDITIONAL NOTES:

**PURPOSE:** The purpose of the Certificate in Equine Studies is to provide an equine curriculum that can be tailored to the individual needs of students. The certificate can be used to improve the current employment status, an existing business, skills or knowledge related to equine science. In addition, students may choose to use this certificate in order to pursue a lifelong learning experience in equine science.

Revised: 03/14/2017

Implementation: Fall 2017

# PROGRAM OVERVIEW

## GRAPHIC DESIGN

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, and Web Design. The certificate program allows students to focus on 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, Photography I, Darkroom Photography, Photography II, Studio Lighting Techniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Animation and 3D Modeling, Web Design I and II, Motion Graphics I and II, Directed Studio, 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; Web Design, Associate in Science Degree Program; Photography, Certificate Program.

### *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, and photography. 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.

Web Designers / Interaction 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.

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.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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

For additional information on the most current list of RCTC program articulations see us at:

[www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

Program Website: [www.rctc.edu/program/art/](http://www.rctc.edu/program/art/)

Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)

More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)

### *Gainful Employment*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at:

[www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## ART+DESIGN: GRAPHIC DESIGN

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, 3 cr

**OR**

COMM 1130, Interpersonal Communication, 3 cr

**GOAL 2: CRITICAL THINKING MAY BE MET BY ANY COURSE IN MNTC1-10 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 BEHAVIORIAL SCIENCES .....3 CR**

Credits from MNTC Goal 5

**GOAL 6: 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. PROGRAM CORE REQUIREMENTS.....30 CREDITS

ART 1124, Graphic Design I, 3 cr

ART 1130, Digital Art I, 3 cr

ART 1223, Typography I, 3 cr

ART 1232, 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

### III. ELECTIVES.....6 CREDITS

**Choose two of the following courses:**

ART 1120, Computer as Creative Media, 3 cr

ART 1131, Presentation Graphics, 3 cr



# RCTC PROGRAM PLAN

ART 1184, Introduction to Digital Photography, 3 cr

ART 1233, Web Design II, 3 cr

ART 2237, Animation and 3D Modeling, 3 cr

**TOTAL .....60 CREDITS**

## **ADDITIONAL NOTES:**

**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.

**PROGRAM ARTICULATION:** 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: 07/31/2014

Implementation: Spring 2015

# PROGRAM OVERVIEW

## GROUP FITNESS INSTRUCTOR

RCTC offers two options for both Personal Trainer and Group Fitness Instructor. The Personal Trainer Diploma program will provide a broad foundation of knowledge to assist students to assess, design and prescribe individualized fitness training programs for clients, while the Group Fitness Instructor Certification program, explores teaching fitness in a class setting. Both programs address the needs of assisting others for improving 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, Methods of Group Fitness, Sport Psychology, Sport Nutrition for Performance, Lifetime Fitness, 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 Recreation Program Leader, Boot Camp, Circuit Training, Strength Training for Men & Women, Body Toning, Jogging & Walking, Step Aerobics, Yoga, Tai Chi and PT/GF Exam Certification prep.

### *Program/Degree Options*

Group Fitness Instructor Certificate  
Personal Trainer Diploma  
Related Field Programs  
Sport Management - Coaching

### *Program Start Date(s)*

Students may begin coursework any semester. However not all courses are 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 Diploma program will prepare students to work with individuals to assist them in improving their fitness levels, while the Group Fitness Instructor Certification program will prepare students to work in class

settings to lead groups of clients in a variety of fitness based activities. PT/GFI opportunities are available in almost every community in our nation through programs offered at recreational venues, public/private fitness clubs, or as independent businesses. Related areas find Personal Trainers working with team sports or individual athletes to improve sport specific skills at every level from youth recreational sports to interscholastic, intercollegiate, amateur and professional teams, whereas, Group Fitness Instructors can implement and lead programs for persons of all ages to meet all fitness needs in any classroom setting. These programs will enable individuals to start with a solid knowledge base and a nationally recognized certification to begin their career.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by the Higher Learning Commission. 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: [www.rctc.edu/catalog/articulations/index.html](http://www.rctc.edu/catalog/articulations/index.html).

### *Additional Information*

Program Website: [www.rctc.edu/program/pt-gfi/](http://www.rctc.edu/program/pt-gfi/)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## GROUP FITNESS INSTRUCTOR

Certificate

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....4 CREDITS**

**GOAL 3: NATURAL SCIENCES .....4 CR**

**Choose one of the following:**

BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr

BIOL 1110, Human Biology, 4 cr

BIOL 1217, Anatomy & Physiology I, 4 cr

### II. PROGRAM CORE REQUIREMENTS.....12 CREDITS

HLTH 1108, Weight Management, 3 cr

HLTH 1110, CPR/AED for the Professional Rescuer, 1 cr

PHED 2240, Methods of Group Fitness, 3 cr

PHED 2245, GF/PT Certification Exam Prep, 2 cr

PHED 2293, Personal Trainer/Group Fitness Instructor Field Experience, 2 cr

### III. ELECTIVES (Select any combination of courses for a minimum of).....6 CREDITS

PHED 1124, Tai Chi, 1 cr

PHED 1125, Yoga, 1 cr

PHED 1126, Body Toning, 1 cr

PHED 1127, Step Aerobics, 1 cr

PHED 1150, Basic TRX Training, 1 cr

PHED 1151, High Intensity Interval Training (HIIT) with TRX Suspension Training, 1 cr

PHED 1189, Boot Camp, 1 cr

PHED 2241, Essentials of Personal Training, 3 cr

PHED 2242, Essentials of Strength & Conditioning, 3 cr

**TOTAL .....22 CREDITS**

Revised: 04/08/2016

Implementation: Fall 2016

# PROGRAM OVERVIEW

## HEALTH INFORMATION MANAGEMENT

Health Information Technicians analyze, secure, and maintain patient health information. Other duties include coding diagnoses, processing reimbursements, managing release of information, and protecting patient data privacy. Upon successfully completing RCTC's online Health Information Technology (HIT) program, you are eligible to take the national exam sponsored by the American Health Information Management Association (AHIMA) and earn the Registered Health Information Technician (RHIT) credential.

Coding Specialists 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. Upon successfully completing RCTC's online Coding Specialist program, you are eligible to take the national examination sponsored by AAPC and earn the Certified Professional Coder (CPC) credential.

Healthcare Informatics is a multidisciplinary field which involves information technology and the management of health data and information. These professionals assist in the building and enhancement of electronic health record systems for use by healthcare providers and healthcare organizations to improve access to, and utilization of, health information. Upon successfully completing RCTC's Healthcare Informatics program, you are eligible to take applicable national exams sponsored by AHIMA and earn one or more of the Certified Healthcare Technology Specialist (CHTS) credentials.

Cancer Registrars are data information specialists who capture a complete history, diagnosis, treatment, and health status for every cancer patient in the US. The data provide essential information to researchers, healthcare providers, and public health officials to better monitor and advance cancer treatments, and conduct research. Upon successfully completing RCTC's online Cancer Registry Management (CRM) program, you are eligible to take the national exam sponsored by National Cancer Registrar's Association (NCRA) and earn the Certified Tumor Registrar (CTR) credential.

### *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,

Pharmacology, Coding, Reimbursement, Supervision of Health Information, Computerized Health Information, Legal Aspects, Quality Management, and Healthcare Data Analysis.

### *Program/Degree Options*

RCTC offers a Cancer Registry Management Certificate, Coding Specialist Diploma, a Healthcare Informatics Diploma, and the Health Information Technology Associate in Applied Science degree. The Cancer Registry Management offers AAS degree and Certificate, the Coding Specialist diploma, and the HIT AAS degree can all be completed entirely online.

### *Career Opportunities/Information*

Health Information Technology graduates may find work in quality, computer information services, 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.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission. The RCTC HIT 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). The RCTC CRM program is accredited by the NCRA.

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## CODING SPECIALIST

Diploma

### I. PROGRAM CORE REQUIREMENTS.....41 CREDITS

BIOL 1107, Fundamentals of Anatomy and Physiology, 4 cr  
 BTEC 1620, Medical Terminology for Health Professions, 3 cr  
 BTEC 2355, Microsoft Business Applications, 4 cr  
 HIMC 1800, Legal Aspects of Health Information, 3 cr  
 HIMC 1820, CPT Coding, 3 cr  
 HIMC 1840, Introduction to Health Records, 3 cr  
 HIMC 1850, Computerized Health Information, 3 cr  
 HIMC 1910, Reimbursement, 2 cr  
 HIMC 2010, ICD-10-CM Coding, 4 cr  
 HIMC 2020, ICD-10-PCS Coding, 3 cr  
 HIMC 2030, Advanced Coding, 3 cr  
 HIMC 2600, Human Diseases for Health Professionals, 3 cr  
 HIMC 2610, Pharmacology, 2 cr  
 HIMC 2835, CCA/CPA Review, 1 cr

**TOTAL .....41 CREDITS**

### **ADDITIONAL NOTES:**

**ADMISSION:** To be admitted to the program, students must meet admission criteria, 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](http://www.rctc.edu/admissions/html/application_form.html)
- Program application: [http://www.rctc.edu/program/hit/documents/MicrosoftWord-HIMC\\_Admission\\_Application\\_Form.pdf](http://www.rctc.edu/program/hit/documents/MicrosoftWord-HIMC_Admission_Application_Form.pdf)

### **PROGRAM ENTRANCE REQUIREMENTS:**

#### **PREREQUISITES:**

- This program is offered predominately online. Computer requirements are listed on the RCTC Online web page at: <http://www.rctc.edu/online/>.

### **Notice of National Criminal Background Check Requirement**

Background checks are required to ensure a safe environment for both students and the public and to meet the contractual requirements of area health care 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=245C15>.

Revised: 01/14/2016

Implementation: Fall 2016

# RCTC PROGRAM PLAN

## HEALTH INFORMATION TECHNOLOGY

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....minimum of 17 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....10 CR**

COMM 1114, Fundamentals of Public Speaking, 3 cr

**OR**

COMM 1130, Interpersonal Communication, 3 cr

ENGL 1109, Introduction to Professional and Technical Communication, 3 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 and 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

**OR**

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

PHIL 1135, Bioethics, 3 cr (**Recommended**)

### II. PROGRAM CORE REQUIREMENTS.....47 CREDITS

BTEC 1620, Medical Terminology for Health Professions, 3 cr

BTEC 2355, Microsoft Business Applications, 4 cr

BTEC 2870, Employment Strategies, 1 cr

HIMC 1800, Legal Aspects of Health Information, 3 cr

HIMC 1820, CPT Coding, 3 cr

HIMC 1840, Introduction to Health Records, 3 cr

HIMC 1850, Computerized Health Information, 3 cr

HIMC 1910, Reimbursement, 2 cr

HIMC 2010, ICD-10 - CM Coding, 4 cr

HIMC 2020, ICD-10 - PCS Coding, 3 cr

HIMC 2030, Advanced Coding, 3 cr

HIMC 2600, Human Diseases for Health Professionals, 3 cr

HIMC 2610, Pharmacology, 2 cr

HIMC 2710, Healthcare Data Analysis, 2 cr

HIMC 2720, Quality Management of Health Information, 2 cr

HIMC 2820, Supervision of Health Information, 3 cr

HIMC 2830, HIT Review, 1 cr

HIMC 2870, HIT Capstone Experience, 2 cr

**TOTAL .....64 CREDITS**

# RCTC PROGRAM PLAN

## HEALTHCARE INFORMATICS

Diploma

### I. PROGRAM CORE REQUIREMENTS.....32 CREDITS

BTEC 1620, Medical Terminology for Health Professions, 3 cr  
 BTEC 2614, Customer Service Skills and Concepts, 3 cr  
 BUS 2240, Project Management, 3 cr  
 COMP 1140, Introduction to Database and SQL, 3 cr  
 COMP 1150, Introduction to Computer Science, 3 cr  
 COMP 2243, Programming and Problem Solving, 4 cr  
 HIMC 1800, Legal Aspects of Health Information, 3 cr  
 HIMC 1840, Introduction to Health Records, 3 cr  
 HIMC 1850, Computerized Health Information, 3 cr  
 HIMC 2710, Healthcare Data Analysis, 2 cr  
 HIMC 2720, Quality Management of Health Information, 2 cr

**TOTAL .....32 CREDITS**

### PROGRAM ENTRANCE REQUIREMENTS:

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](http://www.rctc.edu/admissions/html/application%20form.html)

Program Application: [http://www.rctc.edu/pgoram/hit/documents/MicrosoftWrod-HIMC Admission Application Form.pdf](http://www.rctc.edu/pgoram/hit/documents/MicrosoftWord-HIMC%20Admission%20Application%20Form.pdf)

Revised: 01/14/2016

Implementation: Fall 2016

# RCTC PROGRAM PLAN

## **ADDITIONAL NOTES:**

The RCTC Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

## **PROGRAM ENTRANCE REQUIREMENTS:**

PREQUISITES: This program is offered predominately online. Computer requirements are listed on the RCTC Online web page at <http://www.rctc.edu/online/>.

To be admitted to the program, students must meet admission criteria, complete two (2) applications, and return them to RCTC Admissions and Records:

RCTC Application for admission: [www.rctc.edu/admissions/html/application form.html](http://www.rctc.edu/admissions/html/application%20form.html)

Program Application: [http://www.rctc.edu/pgoram/hit/documents/MicrosoftWrod-HIMC Admission Application Form.pdf](http://www.rctc.edu/pgoram/hit/documents/MicrosoftWord-HIMC%20Admission%20Application%20Form.pdf)

## **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 program 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: 01/14/2016**

**Implementation: Fall 2016**



# PROGRAM OVERVIEW

## HEALTH SCIENCE BROAD FIELD

The Health Science Broad Field program was developed at the Minnesota State Colleges and Universities (MNSCU) level as a broad AS degree option for individuals to transfer to a variety of baccalaureate programs. This is a general introductory program in health sciences that prepares individuals for transfer to a variety of baccalaureate programs. It includes instruction in the basic sciences and aspects of subject matter related to various health occupations.

### *Curriculum-at-a-Glance*

The curriculum is prescribed and meets the needs of the four-year colleges. Individual two-year colleges cannot make any curricular changes but must accept the program in its entirety.

Students complete coursework in Written and Oral Communication, Social Sciences, Humanities and Mathematics and Logical reasoning. Additional coursework is provided in Natural and Physical Sciences.

### *Program/Degree Options*

Associate in Science degree, 60 credits.

### *Program Start Date(s)*

Course work can start in any semester.

### *Career Opportunities/Information*

This degree program is designed to prepare students for baccalaureate degree programs

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

For a current list of RCTC program articulations see us at: [www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

Program Website: [www.rctc.edu/program/hsbf/](http://www.rctc.edu/program/hsbf/)

Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)



# RCTC PROGRAM PLAN

## 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**

COMM 2100, Intercultural Communications, 3 cr

ENGL 1117, Reading and Writing Critically I, 4 cr

**GOAL 3: NATURAL SCIENCES .....20 CR**

BIOL 1220, Concepts of Biology, 4 cr

BIOL 2021, General Microbiology, 4 cr

BIOL 1217, Anatomy and Physiology I, 4 cr

BIOL 1218, Anatomy and Physiology II, 4 cr

CHEM 1117, General, Organic and Biological Chemistry I, 4 cr

**GOAL 4: MATHEMATICS/LOGICAL REASONING.....7 CR**

MATH 1115, College Algebra, 3 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 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 MNSTATE REQUIREMENTS.....3 CREDITS**

BIOL 1211, Principles of Nutrition, 3 cr

**III. ELECTIVES (UNIVERSITY OF MINNESOTA ROCHESTER REQUIREMENTS).....10 CREDITS**

BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr

ENGL 1118, Reading and Writing Critically II, 4 cr

HLTH 1110, CPR/AED for the Professional Rescuer (Health Care Provider), 4 cr

PHYS 1103, Principles of Physics, 3 cr

**TOTAL .....60 CREDITS**

### **ADDITIONAL NOTES:**

**PURPOSE:** This general, introductory program in health sciences 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.

Revised: 04/17/2017

Implementation: Fall 2017

# PROGRAM OVERVIEW

## HEALTH UNIT COORDINATOR

The Health Unit Coordinator major is designed to prepare students for a career in a health care facility. The Health Unit 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 - 28 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.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College. For additional information on the most current list of RCTC program articulations see us at:

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: <http://www.rctc.edu/catalog/programs>.



# RCTC PROGRAM PLAN

## HEALTH UNIT COORDINATOR

Certificate

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

#### GENERAL EDUCATION REQUIREMENTS.....at least 3 CREDITS

Choose one of the following:

ENGL 1117, Reading and Writing Critically I, 4 cr

**OR**

Non-Minnesota Transfer Curriculum Course:

ENGL 1630, English Grammar, 3 cr

### II. PROGRAM CORE REQUIREMENTS.....20 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, Health Unit Coordinator 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

HUC 1530, Electronic Clinical Applications for the Health Unit Coordinator, 2 cr

### III. ADDITIONAL REQUIREMENTS.....4 CREDITS

BTEC 1010, Computer Basics, 1 cr

BTEC 1020, Keyboarding for Computers, 1 cr

BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr

### TOTAL (Depending on English course completed).....27-28 CREDITS

#### **ADDITIONAL NOTES:**

**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 doctor's orders, monitoring and ordering supplies, and transcribing doctor's 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.

#### **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: 12/09/2014; Implementation: Fall 2015

# PROGRAM OVERVIEW

## HEALTHCARE DOCUMENTATION SPECIALIST

RCTC's Healthcare Documentation Specialist Program emphasizes extensive medical terminology and a highly developed skill in medical transcription. Medical reports in the patient's medical record regarding examinations, operations, procedures, 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 medical transcriptionist and medical scribe positions in medical offices, clinics, hospitals, insurance companies, and firms which provide medical supplies and equipment.

### *Curriculum-at-a-Glance*

Coursework may include Medical Terminology, Medical Transcription, Quality Assurance for Healthcare Documentation, Computerized Health Information, Human Diseases, Pharmacology, Professionalism in the Workplace, English Grammar for Careers, and Employment Strategies.

### *Program/Degree Options*

RCTC offers a 22-credit certificate degree for those seeking a degree as a Healthcare Documentation Specialist.

### *Program Start Date(s)*

Courses are available primarily fall and spring semesters. Selected courses may be offered during summer session. Students can enroll on a part-time or full-time basis. Part-time enrollment is possible any semester. All of the courses are offered in an online format. Some courses may be offered only once a year. Consult your academic advisor to develop a specific program plan.

### *Career Opportunities/Information*

The Internet System for Education and Employment Knowledge [www.iseek.org](http://www.iseek.org) states that the median entry-level salary for healthcare documentation specialists in Minnesota is \$18.88 per hour and in the U.S is \$18.79 per hour.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible.

The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## HEALTHCARE DOCUMENTATION SPECIALIST

Certificate

### I. PROGRAM CORE REQUIREMENTS.....22 CREDITS

BTEC 1620, Medical Terminology for Health Professions, 3 cr  
 BTEC 1650, Quality Assurance for Healthcare Documentation, 2 cr  
 BTEC 1670, Medical Transcription, 3 cr  
 BTEC 2616, Professionalism in the Workplace, 2 cr  
 BTEC 2870, Employment Strategies, 1 cr  
 ENGL 1630, English Grammar for Careers, 3 cr  
 HIMC 1850, Computerized Health Information, 3 cr  
 HIMC 2600, Human Diseases for Health Professionals, 3 cr  
 HIMC 2610, Pharmacology, 2 cr

**TOTAL .....22 CREDITS**

### **ADDITIONAL NOTES**

**PURPOSE:** This certificate program will train students for careers as a medical transcriptionist, healthcare documentation editor, or medical scribe. 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.

### **PROGRAM ENTRANCE REQUIREMENTS:**

**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 1020, Keyboarding. This class will not count toward the required credits for the program.

Revised: 03/01/2015

Implementation: Fall 2015

# PROGRAM OVERVIEW

## HISTOLOGY TECHNICIAN

Histology Technicians specialize in the techniques of preparing thin slices of tissue for microscopic examination by a pathologist. They must properly accession, gross, fix, process, embed, cut, stain, and troubleshoot technical issues that arise in the laboratory setting. Histology technicians operate precision equipment and work with a variety of dyes and chemicals to make tissue abnormalities visible with a microscope. Knowledge of biology, chemistry, anatomy, physiology and medical terminology is essential for the professional histology technician. Characteristics of a typical histology technician include:

- Exhibits strong fine motor skills
- Applies meticulous attention to detail
- Multitasks and prioritizes work effectively
- Likes working with visual stimulus
- Employs empathy for patient well-being
- Thrives with a high degree of responsibility
- Values lifelong learning

### *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 Clinic School of Health Sciences.

### *Program/Degree Options*

Associate in Science Degree, 60 credits.

Graduates also awarded a Certificate of Completion by Mayo Clinic College of Medicine and Science.

### *Program Start Date(s)*

This program is jointly offered by RCTC and Mayo Clinic College of Medicine and Science and requires a separate application to Mayo Clinic School of Health Sciences.

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.

### *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*

The Higher Learning Commission accredits both Rochester Community and Technical College and Mayo Clinic College of Medicine and Science.

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

For a current list of RCTC program articulations see us at: [www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

Program Website: [www.mayo.edu/mshs/careers/histology-technician/histology-technician-minnesota](http://www.mayo.edu/mshs/careers/histology-technician/histology-technician-minnesota)

Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)



# RCTC PROGRAM PLAN

## HISTOLOGY TECHNICIAN

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....30 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....7 CR**

ENGL 1109, Introduction to Professional and Technical Communication, 3 cr

ENGL 1117, Reading and Writing Critically I, 4 cr

**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 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: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

PHIL 1135, Bioethics, 3 cr (**Recommended**)

**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. PROGRAM CORE REQUIREMENTS.....30 CREDITS**

BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr

CHEM 1118, General, Organic and Biological Chemistry II, 4 cr

**OR**

CHEM 1128, Chemical Principles, 4 cr

CONSORTIUM, Histology Tech core curriculum transfer, 24 cr

**TOTAL .....60 CREDITS**

Revised: 10/15/2015

Implementation: Fall 2015



# PROGRAM OVERVIEW

## HORTICULTURE

In an increasingly urbanized world, the importance of urban greening and food safety is growing. The intelligent use of plants in the urban landscape offers solutions. Horticulturists design, install, and maintain green spaces for ornamental use and food production.

The RCTC Horticulture Technology program offers an excellent balance of classroom and hands-on training preparing graduates to manage the urban ecosystem. Combining traditional hands-on teaching methods with online Hybrid classes allows students to work or commute while in the program. We actively involve industry professionals in developing the curriculum to meet green industry needs. Students may consider transfer options by working closely with a four-year institution of their choice.

### *Curriculum-at-a-Glance*

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

### *Program/Degree Options*

Horticulture Technology AAS, 60 credits  
Horticulture Technician Diploma, 54 credits  
Horticulture Science AS, 60 credits

### *Program Start Date(s)*

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

### *Career Opportunities/Information*

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

Greenhouse Management and Urban agriculture, Landscape and Turf Management, Urban Tree Care, and related occupations.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

RCTC's Horticulture Science Associate in Science degree has been established to transfer into the Plant Science 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:  
[www.rctc.edu/catalog/articulations/index.html](http://www.rctc.edu/catalog/articulations/index.html)

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: <http://www.rctc.edu/catalog/programs>



# RCTC PROGRAM PLAN

## HORTICULTURE TECHNOLOGY: FLORICULTURE/GARDEN CENTER

Diploma

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**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 any other college course numbered 1000 or above other than courses from HORT, HTFL, or HTLS.

### II. PROGRAM CORE REQUIREMENTS.....38 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 – Herbaceous Plants, 3 cr

HORT 1323, Introduction to Horticulture, 3 cr

HORT 2303, Horticulture Internship, 3 cr

HORT 2330, Plant Propagation, 4 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 Landscaping, 3 cr

### III. HORTICULTURE ELECTIVES.....6 CREDITS

**Choose six (6) credits 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

HTLS 1322, Turf and Landscape Maintenance, 4 cr

HTLS 2110, Introductory Tree Climbing, 1 cr

HTLS 2332, Arboriculture, 3 cr

HTLS 2345, Golf Course Field Operations, 3 cr

**TOTAL..... 52 CREDITS**

# RCTC PROGRAM PLAN

**ADDITIONAL NOTES:**

**PURPOSE:** The Horticulture Technology Floriculture/Garden Center program provides educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in a horticulture crop production (floriculture), interior plantscaping and maintenance, and floral design careers. 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.

Revised: 05/01/2014

Implementation: Spring 2014

# RCTC PROGRAM PLAN

## HORTICULTURE TECHNOLOGY: LANDSCAPE, GOLF COURSE AND GROUNDS MAINTENANCE

Diploma

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**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 any other college course numbered 1000 or above other than courses from HORT, HTFL, or HTLS.

### II. PROGRAM CORE REQUIREMENTS.....38 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 – Herbaceous Plants, 3 cr

HORT 1323, Introduction to Horticulture, 3 cr

HORT 2303, Horticulture Internship, 3 cr

HORT 2330, Plant Propagation, 4 cr

HORT 2335, Landscape Design, 3 cr

HORT 2350, Integrated Plant/Pest Management, 2 cr

HORT 2399, Horticulture Seminar, 1 cr

HTLS 1322, Turf and Landscape Management, 4 cr

HTLS 2332, Arboriculture, 3 cr

HTLS 2345, Golf Course Field Operations, 3 cr

### III. HORTICULTURE ELECTIVES.....6 CREDITS

Any course prefixed HTFL or any MNTC course approved by Horticulture Advisor.

HORT 2301, Directed Study, 1 cr

HORT 2302, Directed Study, 2 cr

HORT 2390, World Horticulture, 2 cr

**TOTAL .....52 CREDITS**

### ADDITIONAL NOTES:

**PURPOSE:** The Horticulture Technology Landscape, Golf Course, and Grounds Maintenance Diploma program provides educational opportunities to individuals that will enable them to obtain the knowledge, skills, and attitudes necessary to succeed in landscape install, golf course maintenance, and grounds maintenance careers. 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. Revised: 05/01/2014; Implementation: Spring 2014

# RCTC PROGRAM PLAN

## HORTICULTURE SCIENCE

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....33 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....7 CR**

COMM 1130, Interpersonal Communication, 3 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 .....10 CR**

BIOL 1101, Elements of Biology, 3 cr

CHEM 1127, Chemical Principles I, 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 BEHAVIORIAL SCIENCES .....7 CR**

ECON 2214, Principles of Economics: Microeconomics, 4 cr

COMM 1110, Introduction to Mass Communication, 3 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....6 CR**

Three credits from two separate MNTC Goal 6 areas

### II. PROGRAM CORE REQUIREMENTS.....17 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 2330, Plant Propagation, 4 cr

HTFL 2341, Greenhouse Crop Production, 4 cr

### III. HORTICULTURE ELECTIVES.....7 CR

Any course prefixed HORT, HTFL, HTLS, or any MNTC course approved by a Horticulture advisor.

### IV. REQUIRED BUSINESS ELECTIVES.....3 CR

BUS 1144, Opening and Managing a Small Business, 3 cr

**TOTAL .....60 CREDITS**

Revised: 11/19/2015

Implementation: Fall 2016

# RCTC PROGRAM PLAN

## 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 AND PHILOSOPHY .....6 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. PROGRAM CORE REQUIREMENTS.....28 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 – Herbaceous Plants, 3 cr  
 HORT 1323, Introduction to Horticulture, 3 cr  
 HORT 2330, Plant Propagation, 4 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. HORTICULTURE ELECTIVES.....17 CREDITS**

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 Landscaping, 3 cr  
 HTLS 1322, Turf and Landscape Maintenance, 4 cr  
 HTLS 2110, Introductory Tree Climbing, 1 cr

# RCTC PROGRAM PLAN

HTLS 2332, Arboriculture, 3 cr

HTLS 2345, Golf Course Field Operations, 3 cr

**TOTAL .....60 CREDITS**

## **ADDITIONAL NOTES:**

**PURPOSE:** The Horticulture Technology Associate in Applied Science program 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, floriculture, 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.

Revised: 10/01/2013

Implementation: Spring 2014

# PROGRAM OVERVIEW

## HUMAN SERVICES

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. The 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 diploma as a **Human Services Technician** or an Associate in Science Degree as a **Human Services Specialist**. The three certificate options are: Chemical Health Assistant, Developmental Disability 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, paraprofessional, direct care staff, human services technician and case aide.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: <http://www.rctc.edu/catalog/programs>





# RCTC PROGRAM PLAN

## HUMAN SERVICES SPECIALIST

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....32 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....7 CR**

COMM 1114, Fundamentals of Public Speaking, 3 cr

OR

COMM 1130, Interpersonal Communication, 3 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 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 and Development, 3 cr

SOC 1614, Introduction to Sociology, 3 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

Credits from MNTC Goal 6

**ELECTIVES FROM MNTC COURSES.....8 CR**

Suggested course recommended for student articulating to a 4-year social work program

MATH 2208, Fundamentals of Statistics, 4 cr

### II. PROGRAM CORE REQUIREMENTS.....28 CREDITS

NA 1500, Nursing Assistant Theory and Clinical, 4 cr

HS 1511, Medication Administration 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**

# RCTC PROGRAM PLAN

## ADDITIONAL NOTES:

**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.

## 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: 04/27/2016

Implementation: Fall 2016

# RCTC PROGRAM PLAN

## HUMAN SERVICES TECHNICIAN:

### Chemical Health Assistant

Certificate

- I. GENERAL EDUCATION REQUIREMENT.....1 CREDIT**  
 HLTH 1109, Community CPR/First Aid and Safety, 1 cr
- II. PROGRAM CORE REQUIREMENTS.....10 CREDITS**  
 NA 1500, Nursing Assistant Theory and Clinic, 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**

#### ADDITIONAL NOTES:

##### 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: 04/28/2016

# RCTC PROGRAM PLAN

## HUMAN SERVICES TECHNICIAN: Developmental Disability Assistant Certificate

- I. GENERAL EDUCATION REQUIREMENT.....1 CREDIT**  
HLTH 1109, Community CPR/First Aid and Safety, 1 cr
- II. PROGRAM CORE REQUIREMENTS.....10 CREDITS**  
NA 1500, Nursing Assistant Theory and Clinic, 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**

### ADDITIONAL NOTES:

#### **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: 04/28/2016

# RCTC PROGRAM PLAN

## HUMAN SERVICES TECHNICIAN:

### Mental Health Assistant

Certificate

<b>I. GENERAL EDUCATION REQUIREMENT.....</b>	<b>1 CREDIT</b>
HLTH 1109, Community CPR/First Aid and Safety, 1 cr	
<b>II. PROGRAM CORE REQUIREMENTS.....</b>	<b>10 CREDITS</b>
NA 1500, Nursing Assistant Theory and Clinic, 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	
<b>TOTAL.....</b>	<b>11 CREDITS</b>

#### **ADDITIONAL NOTES:**

##### **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: 04/28/2016

# RCTC PROGRAM PLAN

## HUMAN SERVICES TECHNICIAN

Diploma

**I. MINNESOTA TRANSFER CURRICULUM (MNTC)/**  
**GENERAL EDUCATION REQUIREMENTS.....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. PROGRAM CORE REQUIREMENTS.....28 CREDITS**  
 NA 1500, Nursing Assistant Theory and Clinical, 4 cr  
 HS 1511, Medication Administration 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 .....36 CREDITS**

### **ADDITIONAL NOTES:**

**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.

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

# RCTC PROGRAM PLAN

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.

## **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: 04/27/2016

Implementation: Fall 2016

# PROGRAM OVERVIEW

## INDIVIDUALIZED STUDIES

Are your educational goals unique to you? Are you seeking to incorporate prior experience and your own well-defined professional goals into a degree? For learners with interests not addressed by our standardized degree offerings, RCTC offers the Associate of Science (AS) degree in Individualized Studies. This degree option provides an exciting opportunity for those students with unique interests and educational goals. If you bring substantial life experience and a clear set of personal goals to your college studies, this highly flexible degree option may be for you!

### *Curriculum-at-a-Glance*

Achievement of this degree requires completion of sixty (60) credits including thirty (30) credits specific to the student's unique plan plus thirty (30) credits from the Minnesota Transfer Curriculum. Courses may be selected from traditional courses, independent study projects, internships and credit-for-prior learning. Minnesota Transfer Curriculum classes will be selected to meet specific requirements of the Minnesota Transfer Curriculum, including coursework distributed across these areas: Written & Oral Communication, Critical Thinking, Natural Sciences, Mathematical/Logical Reasoning, History and Social & Behavioral Sciences, the Humanities, Human Diversity, Ethics & Civic Responsibility, Global Perspective, and People & the Environment.

### *Program/Degree Options*

This degree option requires careful planning. Before selecting this degree option, students interested in pursuit of the AS in Individualized Study must first meet with an RCTC advisor. In consultation with her/his advisor, the student will clarify employment and transfer goals, select 30 credits of appropriate Minnesota Transfer Curriculum courses, identify elective credits, and design the student's program with consideration for the student's goals and transfer needs. A one credit course in Career Exploration is required unless waived by the advisor.

### *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.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/individualized-studies](http://www.rctc.edu/program/individualized-studies)  
Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)  
More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)





# RCTC PROGRAM PLAN

## INDIVIDUALIZED STUDIES

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 Public Speaking, 3 cr

OR

COMM 1130, Interpersonal Communication, 3 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

OR

**GOAL 4: MATHEMATICS/LOGICAL REASONING.....3 CR**

Credits from MNTC Goal 4

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL 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.

**Career Exploration.....0-1 CREDITS**

CAOR 1103, Career Exploration Seminar, 1 cr OR Approved waiver

**ELECTIVES.....29-30 CREDITS**

Any RCTC courses numbered above 1000 and in approved degree plan

**TOTAL .....60 CREDITS**

**ADDITIONAL NOTES: 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

# PROGRAM OVERVIEW

## LABORATORY SCIENCE

RCTC offers an Associate in Science degree program in Laboratory Science. Upon completion of the Associate degree at RCTC, students can transfer and complete a Bachelor in Science degree in Medical Laboratory Science.

### *Curriculum-at-a-Glance*

Professional Core requirements include: Survey of Life Forms or Introduction to Molecular Biology Methods, Survey of Organic Chemistry, General, Organic and Biological Chemistry II or Biochemistry, Chemical Principles II, Anatomy and Physiology I and II, Microbiology, and Introduction to the Research and Clinical Laboratory. General education requirements include courses in: oral and technical communications, biology, chemistry, college algebra, psychology, sociology and ethics.

### *Program/Degree Options*

RCTC's Associate in Science in Laboratory Science is 60 credits and articulates with the Bachelor of Science degree in Medical Laboratory Science at the University of North Dakota.

### *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.

The Laboratory Science program has an articulation agreement to serve as the first two years of a Bachelor of Science (B.S.) degree in Medical Laboratory Science through the University of North Dakota.

### *Additional Information*

Program Website: [www.rctc.edu/program/laboratory-science/](http://www.rctc.edu/program/laboratory-science/)

Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)



# RCTC PROGRAM PLAN

## LABORATORY SCIENCE

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)

**GENERAL EDUCATION REQUIREMENTS.....31 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....10 CR**

COMM 1114, Fundamentals of Public Speaking, 3 cr

ENGL 1109, Introduction to Professional and Technical Communication, 3 cr

**OR**

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 .....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 BEHAVIORIAL 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**

PHIL 1135, Bioethics, 3 cr

**II. PROGRAM CORE REQUIREMENTS.....29 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

**OR**

BIOL 2020, Introduction to Molecular Biology Methods, 4 cr

BIOL 2021, Microbiology, 4 cr

CHEM 1118, General, Organic and Biological Chemistry II, 4 cr

**OR**

CHEM 2800, Biochemistry, 3 cr

CHEM 1128, Chemical Principles, 4 cr

CHEM 2100, Survey of Organic Chemistry, 4 cr

HCCC 1200, Introduction to the Clinical/Research Laboratory, 2 cr

**TOTAL .....60 CREDITS**

# RCTC PROGRAM PLAN

**ADDITIONAL NOTES:**

**PROGRAM ARTICULATION:** This program is articulated with the Bachelor of Science degree in Medical 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.

Revised: 10/11/2016

Implementation: Fall 2017

# PROGRAM OVERVIEW

## LAW ENFORCEMENT

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 and Ethics 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 Science degree (60 credits), Associate in Applied Science degree (60 credits), and a Certificate option in Law Enforcement (29 credits) for individuals that have already completed a degree from any regionally accredited university or college in any subject.

### *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 will need to pass a physiological exam to be eligible to enroll in the skills program. Students will also need to pass a physical fitness test to attend defensive tactics.

[www.rctc.edu/program/lawe/Coopertest.htm](http://www.rctc.edu/program/lawe/Coopertest.htm)

Students interested in attending need to register for these courses in October.

### *Career Opportunities/Information*

The Associate in Science Law Enforcement degree, Associate in Applied Science degree and the Certificate program satisfies requirements to become MN POST Board Exam eligible. The programs prepare 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 Associate in Science degree program will provide you with excellent transfer opportunities should a student decide to pursue a bachelor's degree.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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

For additional information on the most current list of RCTC program articulations see us at:

[www.rctc.edu/catalog/articulations/index.html](http://www.rctc.edu/catalog/articulations/index.html)

### *Additional Information*

Program Website: [www.rctc.edu/program/lawe](http://www.rctc.edu/program/lawe)

Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)

More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)

### *Gainful Employment*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: <http://www.rctc.edu/catalog/programs>



# RCTC PROGRAM PLAN

## LAW ENFORCEMENT

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....19 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....7 CR**

COMM 1130, Interpersonal Communication, 3 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**

CHEM 1031, Introduction to Forensic Chemistry, 3 cr (**Recommended**)

OR 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 .....6 CR**

SOC 1614, Introduction to Sociology, 3 cr

SOC 2625, Minority Group Relations, 3 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

ART 1184, Photography, 3 cr (**Recommended**)

OR

Credits from MNTC Goal 6

### II. PROGRAM CORE REQUIREMENTS.....30 CREDITS

CRJU 1215, Homeland Security/Defense, 3 cr

EMC 1121, First Responder, 2 cr

LAW 1105, Introduction to Law Enforcement, 3 cr

LAW 1112, Introduction to Criminal Investigations, 4 cr

LAW 1115, Basic Firearms, 2 cr

LAW 2110, Police Report Writing, 2 cr

LAW 2119, Minnesota Criminal and Traffic Statutes, 3 cr

LAW 2121, Human Behavior and Ethics in Law Enforcement, 3 cr

LAW 2122, Criminal Procedure, 3 cr

LAW 2127, Juvenile Law and Procedures, 3 cr

LAW 2140, Patrol Operations, 2 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

# RCTC PROGRAM PLAN

III. HEALTH AND PHYSICAL EDUCATION REQUIREMENTS.....1 CREDIT  
PHED 1189, Boot Camp, 1 cr

**TOTAL .....60 CREDITS**

**ADDITIONAL NOTES:**

\*Tuition differential associated with these courses.

**PROGRAM ENTRANCE REQUIREMENTS:**

To be admitted to the program, a grade of "C" or better is required of all general education and Law Enforcement course requirements.

**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 program 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: 11/08/2016  
Implementation: Fall 2017

# RCTC PROGRAM PLAN

## LAW ENFORCEMENT

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....30 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....7 CR**

COMM 1130, Interpersonal Communication, 3 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**

CHEM 1031, Introduction to Forensic Chemistry, 3 cr (**Recommended**)

**OR**

Credits from MNTC Goal 3

**GOAL 4: MATHEMATICS/LOGICAL REASONING .....3 CR**

Credits from MNTC Goal 4

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORAL SCIENCES .....9 CR**

PSYC 1611, Psychology of Adjustment, 3 cr

**OR**

PSYC 2618, General Psychology, 4 cr

SOC 1614, Introduction to Sociology, 3 cr

SOC 2625, Minority Group Relations, 3 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

ART 1184, Photography, 3 cr (**Recommended**)

**OR**

Credits from MNTC Goal 6

**ELECTIVES: MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS.....5 CR**

### II. PROGRAM CORE REQUIREMENTS.....27 CREDITS

EMC 1121, First Responder, 2 cr

LAW 1105, Introduction to Law Enforcement, 3 cr

LAW 1112, Introduction to Criminal Investigations, 4 cr

LAW 1115, Basic Firearms, 2 cr

LAW 2110, Police Report Writing, 2 cr

LAW 2119, Minnesota Criminal and Traffic Statutes, 3 cr

LAW 2121, Human Behavior and Ethics in Law Enforcement, 3 cr

LAW 2122, Criminal Procedure, 3 cr

LAW 2127, Juvenile Law and Procedures, 3 cr

LAW 2140, Patrol Operations, 2 cr



# RCTC PROGRAM PLAN

## **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 Practical's , 2 cr

## **III. HEALTH AND PHYSICAL EDUCATION REQUIREMENTS.....1 CREDIT**

PHED 1189, Boot Camp, 1 cr

## **TOTAL .....68 CREDITS**

### **ADDITIONAL NOTES:**

\*Tuition differential associated with these courses.

### **PROGRAM ENTRANCE REQUIREMENTS:**

To be admitted to the program, a grade of "C" or better is required of all general education and Law Enforcement course requirements.

### **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 program 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: 11/08/2016

Implementation: Fall 2017

# RCTC PROGRAM PLAN

## LAW ENFORCEMENT

Certificate

### I. PROGRAM CORE REQUIREMENTS.....18 CREDITS

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 and Procedures, 3 cr  
 LAWE 2140, Patrol Operations, 2 cr

### II. SKILLS COURSES.....10 CREDITS

\*LAWE 2101, Basic Firearms, 2 cr  
 \*LAWE 2202, Police Report Writing, 2 cr  
 \*LAWE 2103, Minnesota Criminal and Traffic Statutes, 3 cr  
 \*LAWE 2104, Human Behavior and Ethics in Law Enforcement, 3 cr  
 \*LAWE 2105, Criminal Procedure, 3 cr

### III. HEALTH AND PHYSICAL EDUCATION REQUIREMENTS.....1 CREDIT

PHED 1189, Boot Camp, 1 cr

**TOTAL .....29 CREDITS**

#### **ADDITIONAL NOTES:**

\*Tuition differential associated with these courses.

**ADMISSION:** Individuals applying for the certificate program must already possess a minimum of a two-year degree from a regionally accredited college or university and also must have completed or are completing:

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 and to have a Diversity course. This can be done from your transferring college or by taking the following course:

EMC 1121, First Responder, 2 cr  
 SOC 2625, Minority Group Relations, 3 cr

#### **PROGRAM ENTRANCE REQUIREMENTS:**

To be admitted to the program, a grade of "C" or better is required of all general education and Law Enforcement course requirements.

# RCTC PROGRAM PLAN

## **MORE INFORMATIONS REQUIREMENTS:**

### **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 program 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: 02/10/2015

Implementation: Fall 2015

# PROGRAM OVERVIEW

## LIBERAL ARTS AND SCIENCES

RCTC offers an Associate in Arts (AA) 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.

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

### *Additional Information*

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



# RCTC PROGRAM PLAN

## LIBERAL ARTS AND SCIENCES: HONORS

Associate in Arts

### 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

**OR**

COMM 1130, Interpersonal Communication, 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 .....minimum of 6 CR**

A minimum of two courses with a lab from two different areas that meet MNTC Goal 3

**GOAL 4: MATHEMATICS/LOGICAL REASONING .....minimum of 3 CR**

Credits from MNTC Goal 4

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES ....minimum of 9 CR**

A minimum of two credits from each of three areas from MNTC Goal 5

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY ....minimum of 9 CR**

A minimum of two credits from each of three areas from MNTC Goal 6

**Goals 7, 8, 9, 10: Two credits from each of the following areas:**

**Goal 7: Human Diversity**

**Goal 8: Global Perspective**

**Goal 9: Ethic & Civic Responsibility**

**Goal 10: People & Environment**

**II. PROGRAM CORE REQUIREMENTS.....2 CREDITS**

INFS 2915, Introduction to Information Literacy: Honors, 1 cr

HONR 2900, Honors Capstone, 1 cr

**III. 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 Athletes (PHED 1210-1236; PHED 2210-2236).

First Year Experience, 1 cr\*

\*FYEX 1000, College Success Strategies, required of some entering students.

**IV. ELECTIVES.....15 CREDITS**

Any course numbered above 1000

**TOTAL .....60 CREDITS**

# RCTC PROGRAM PLAN

## **ADDITIONAL NOTES:**

**PURPOSE:** The Liberal Arts: Honors degree is designed for the purpose of transfer to a competitive and/or honors bachelor's degree at another college or university.

## **ADMISSION:**

- Current students eligible to join Phi Theta Kappa (GPA of 3.5 after completing 12 credits) will receive an invitation to apply to the Honors Program.
- High School Students with a GPA of 3.5 will receive an invitation to apply to the Honors Program.
- Permission from Honors Coordinator.

## **MORE INFORMATION REQUIREMENTS:**

Students must take one Honors course from four (4) different Goal Areas 1, 3-6.

Revised: 02/14/2017

Implementation: Fall 2017

# RCTC PROGRAM PLAN

## 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**

COMM 1114, Fundamentals of Public Speaking, 3 cr

**OR**

COMM 1130, Interpersonal Communication, 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 .....minimum of 6 CR**

A minimum of two courses with a lab from two different areas that meet MNTC Goal 3

**GOAL 4: MATHEMATICS/LOGICAL REASONING .....minimum of 3 CR**

Credits from MNTC Goal 4

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES ....minimum of 9 CR**

A minimum of two credits from each of three areas from MNTC Goal 5

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY ....minimum of 9 CR**

A minimum of two credits from each of three areas from MNTC Goal 6

**Goals 7, 8, 9, 10: Two credits from each of the following areas:**

**Goal 7: Human Diversity**

**Goal 8: Global Perspective**

**Goal 9: Ethic & Civic Responsibility**

**Goal 10: People & 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 Athletes (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

**TOTAL .....60 CREDITS**

Revised: 03/23/2016; Implementation: Fall 2016

# PROGRAM OVERVIEW

## MEDICAL ADMINISTRATIVE ASSISTANT

RCTC's Medical Administrative Assistant Program emphasizes extensive 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 patient's medical record regarding examinations, operations, procedures, 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 administrative assistant positions in medical offices, clinics, hospitals, insurance companies, and firms which provide medical supplies and equipment.

### *Curriculum-at-a-Glance*

Coursework may include Medical Terminology, Medical Transcription, Quality Assurance for Healthcare Documentation, Medical Office Procedures, Healthcare Documentation Fundamentals, Computerized Health Information, Human Diseases, Pharmacology, Professionalism in the Workplace, English Grammar for Careers, Human Relations in Organizations, and Employment Strategies.

### *Program/Degree Options*

RCTC offers 3 different degree options in the medical administrative assistant field. These include a 38-credit Medical Administrative Assistant Diploma, a 60-credit Medical Administrative Assistant Associate in Applied Science degree, and a 60-credit Medical Administrative Assistant Associate in Science degree.

### *Program Start Date(s)*

Courses are available primarily fall and spring semesters. Selected courses may be offered during summer session. Students can enroll on a part-time or full-time basis. Part-time enrollment is possible any semester. All of the courses are offered in an online format. Some courses may be offered only once a year. Consult your academic advisor to develop a specific program plan.

### *Career Opportunities/Information*

The Internet System for Education and Employment Knowledge [www.iseek.org](http://www.iseek.org) states that the median entry-level salary for medical administrative assistants in Minnesota is \$18.88 per hour and in the U.S is \$18.43 per hour.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible.

The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).





# RCTC PROGRAM PLAN

## MEDICAL ADMINISTRATIVE ASSISTANT

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....16 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....3 CR**

COMM 2130, Small Group Communication, 3 cr

ENGL 1109, Introduction to Technical Communication, 3 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 BEHAVIORIAL SCIENCES .....3 CR**

PSYC 1611, Psychology of Adjustment, 3 cr

PSYC 2618, General Psychology, 4 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

PHIL 1135, Bioethics, 3 cr

**GOAL 7: HUMAN DIVERSITY.....3 CR**

COMM 1130, Interpersonal Communications, 3 cr

### II. PROGRAM CORE REQUIREMENTS.....44 CREDITS

BTEC 1220, Human Relations in Organizations, 3 cr

BTEC 1320, Document Production, 3 cr

BTEC 1620, Medical Terminology for Health Professions, 3 cr

BTEC 1650, Quality Assurance for Healthcare Documentation, 2 cr

BTEC 1670, Medical Transcription, 3 cr

BTEC 2355, Microsoft Business Applications, 4 cr

BTEC 2614, Customer Service Skills and Concepts, 3 cr

BTEC 2616, Professionalism in the Workplace, 2 cr

BTEC 2622, Current Technology in the Workplace, 3 cr

BTEC 2640, Healthcare Documentation Fundamentals, 3 cr

BTEC 2650, Medical Office Procedures, 3 cr

BTEC 2870, Employment Strategies, 1 cr

ENGL 1630, English Grammar for Careers, 3 cr

HIMC 1850, Computerized Health Information, 3 cr

HIMC 2600, Human Diseases for Health Professionals, 3 cr

HIMC 2610, Pharmacology, 2 cr

**TOTAL .....60 CREDITS**

# RCTC PROGRAM PLAN

## **ADDITIONAL NOTES:**

**PURPOSE:** This program prepares students for employment in the medical field as medical administrative assistants 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.

## **PROGRAM ENTRANCE REQUIREMENTS**

**KEYBOARDING PREREQUISITE:** Students entering this program should be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1020 Keyboarding. This class will not count toward the required credits for the program.

## **MORE INFORMATION REQUIREMENTS:**

**BTEC 2660, JOB SHADOWING EXPERIENCE:** Students are encouraged, but not required, to complete the 1-credit course Job Shadowing Experience during the last semester of coursework.

## **Notice of National Criminal Background Check Requirement for Job Shadowing Experience**

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 the elective job shadow experience. A list of disqualifying offenses is available at: <https://www.revisor.mn.gov/statutes/?id=245C.15>

Revised: 12/30/2015

Implementation: Fall 2015

# RCTC PROGRAM PLAN

## MEDICAL ADMINISTRATIVE ASSISTANT

Associate in Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....30 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....3 CR**

COMM 2130, Small Group Communication, 3 cr

ENGL 1109, Introduction to Professional and Technical Communication, 3 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 and Physiology, 4 cr

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....3 CR**

PSYC 1611, Psychology of Adjustment, 3 cr

PSYC 2618, General Psychology, 4 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

PHIL 1135, Bioethics, 3 cr

**GOAL 7: HUMAN DIVERSITY.....3 CR**

COMM 1130, Interpersonal Communications, 3 cr

### II. ADDITIONAL GENERAL EDUCATION REQUIREMENTS.....14 CREDITS

Students may choose additional elective credits from Goal 1-10 to meet the MNTC General education requirements.

### III. PROGRAM CORE REQUIREMENTS.....30 CREDITS

BTEC 1220, Human Relations in Organizations, 3 cr

BTEC 1620, Medical Terminology for Health Professions, 3 cr

BTEC 1650, Quality Assurance for Healthcare Documentation, 2 cr

BTEC 1670, Medical Transcription, 3 cr

BTEC 2640, Healthcare Documentation Fundamentals, 3 cr

BTEC 2650, Medical Office Procedures, 3 cr

BTEC 2870, Employment Strategies, 1 cr

ENGL 1630, English Grammar for Careers, 3 cr

HIMC 1850, Computerized Health Information, 3 cr

HIMC 2600, Human Diseases for Health Professionals, 3 cr

HIMC 2610, Pharmacology, 2 cr

# RCTC PROGRAM PLAN

**Choose one of the following:**

BTEC 1030, Keyboarding Speed/Accuracy, 1 cr

BTEC 2660, Job Shadow Experience, 1 cr

BTEC 2880, Creating and Showcasing a Professional Portfolio, 1 cr

**TOTAL .....60 CREDITS**

**ADDITIONAL NOTES:**

**PURPOSE:** This program prepares students for employment in the medical field as medical administrative assistants 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.

**PROGRAM ENTRANCE REQUIREMENTS**

**KEYBOARDING PREREQUISITE:** Students entering this program should be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1020 Keyboarding. This class will not count toward the required credits for the program.

**MORE INFORMATION REQUIREMENTS:**

**BTEC 2660, JOB SHADOWING EXPERIENCE:** Students are encouraged, but not required, to complete the 1-credit course Job Shadowing Experience during the last semester of coursework.

**Notice of National Criminal Background Check Requirement for Job Shadowing Experience**

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 the elective job shadow experience. A list of disqualifying offenses is available at:

<https://www.revisor.mn.gov/statutes/?id=245C.15>

Revised: 10/15/2015

Implementation: Fall 2015

# RCTC PROGRAM PLAN

## MEDICAL ADMINISTRATIVE ASSISTANT

Diploma

### I. PROGRAM CORE REQUIREMENTS.....39 CREDITS

BTEC 1220, Human Relations in Organizations, 3 cr  
 BTEC 1320, Document Production, 3 cr  
 BTEC 1620, Medical Terminology for Health Professions, 3 cr  
 BTEC 1650, Quality Assurance for Healthcare Documentation, 2 cr  
 BTEC 1670, Medical Transcription, 3 cr  
 BTEC 2355, Microsoft Business Applications, 4 cr  
 BTEC 2622, Current Technology in the Workplace, 3 cr  
 BTEC 2640, Healthcare Documentation Fundamentals, 3 cr  
 BTEC 2650, Medical Office Procedures, 3 cr  
 BTEC 2870, Employment Strategies, 1 cr  
 ENGL 1630, English Grammar for Careers, 3 cr  
 HIMC 1850, Computerized Health Information, 3 cr  
 HIMC 2600, Human Diseases for Health Professionals, 3 cr  
 HIMC 2610, Pharmacology, 2 cr

**TOTAL ..... 39 CREDITS**

### **ADDITIONAL NOTES:**

**PURPOSE:** This program prepares students for employment in the medical field as medical administrative assistants 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.

### **PROGRAM ENTRANCE REQUIREMENTS**

**KEYBOARDING PREREQUISITE:** Students entering this program should be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1020 Keyboarding. This class will not count toward the required credits for the program.

### **MORE INFORMATION REQUIREMENTS:**

**BTEC 2660, JOB SHADOWING EXPERIENCE:** Students are encouraged, but not required, to complete the 1-credit course Job Shadowing Experience during the last semester of coursework.

### **Notice of National Criminal Background Check Requirement for Job Shadowing Experience**

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 the elective job shadow experience. A list of disqualifying offenses is available at: <https://www.revisor.mn.gov/statutes/?id=245C.15>

Revised: 12/20/2015

Implementation: Fall 2015

# PROGRAM OVERVIEW

## MUSIC CREATIVE TECHNOLOGIES

RCTC's Music Creative Technologies AFA, and the Music Technology Certificate are designed to prepare students as music technology artists in the areas of sound engineering, music production and composition, music business, and related new media such as video and lighting. The degree programs consist of a liberal art core and offer programs of study in integrated music technology and new medias. The certificate program allows students to focus on music technology.

### *Curriculum-at-a-Glance*

Coursework may include: Electronic Music Composition I and II, Audio Production I and II, Music, Video Lights I and II, Music Production, private instrument and/or voice study, music theory I and II, and large and small music ensemble participation.

### *Program/Degree Options*

RCTC's offers an Associate in Fine Arts Degree Program in Music Creative Medias (60 credits), and a Certificate Program in Music Technology (20 credits).

### *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*

Careers generally fit five main categories: (1) Music Production/Engineering, (2) Music Creation, (3) Music Performance, (4) Music Education, and (5) Music Business. The subcategories are varied in each of the five primary categories: for example, Music Production/Engineering includes career opportunities in studio engineering, radio/TV/film production, sound equipment engineering, small and large recording studio operations, among others. Other career opportunities include music composition, performance, video game

audio creation and engineering. Music Business includes work in entertainment management, entertainment law, among many other opportunities.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

An articulation agreement for Music Creative Technologies Associate in Fine Arts Degree Program has been established between RCTC and Mankato State University.

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

### *Additional Information*

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

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible.

The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## MUSIC CREATIVE TECHNOLOGIES

Associate in Fine Arts

<b>I. MINNESOTA TRANSFER CURRICULUM (MNTC)/</b>	
<b>GENERAL EDUCATION REQUIREMENTS.....</b>	<b>30 CREDITS</b>
<b>GOAL 1: WRITTEN AND ORAL COMMUNICATION .....</b>	<b>7 CR</b>
COMM 1114, Fundamentals of Public Speaking, 3 cr	
ENGL 1117, Reading and Writing Critically I, 4 cr	
<b>GOAL 2: CRITICAL THINKING MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS</b>	
<b>GOAL 3: NATURAL SCIENCES .....</b>	<b>3 CR</b>
Credits from MNTC Goal 3	
<b>GOAL 4: MATHEMATICS/LOGICAL REASONING .....</b>	<b>3 CR</b>
Credits from MNTC Goal 4	
<b>GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....</b>	<b>3 CR</b>
Credits from MNTC Goal 5	
<b>GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....</b>	<b>14 CR</b>
MUSC 1001, Music Fundamentals, 3 cr	
MUSC 1002, Music, Video, Lights, 3 cr	
MUSC 1005, Music Production, 3 cr	
MUSC Ensemble Experience from MUSC 13xx, 5 cr	
<b>II. PROGRAM CORE REQUIREMENTS.....</b>	<b>30 CREDITS</b>
MUSC 1003, Music, Video, Lights II, 3 cr	
MUSC 1401, Beginning Class Piano, 3 cr	
MUSC 1421, Beginning Class Voice, 3 cr	
MUSC 1450, Applied Music – Vocal, 1 cr	
MUSC 1460, Applied Music – Instrumental: Piano, 1 cr	
MUSC 1501, Musicianship I, 4 cr	
MUSC 1502, Musicianship I, 4 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	
<b>TOTAL .....</b>	<b>60 CREDITS</b>

### ADDITIONAL NOTES:

**PURPOSE:** The purpose of the Music Creative Technologies 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); (2) Music Production; (3) Music composition, and (4) Music Education.

Revised: 09/13/2016

Implementation: Fall 2016

# RCTC PROGRAM PLAN

## MUSIC TECHNOLOGY

Certificate

### I. PROGRAM CORE REQUIREMENTS.....20 CREDITS

- MUSC 1002, Music, Video, Lights, 3 cr
- MUSC 1003, Music, Video, Lights II, 3 cr
- MUSC 1005, Music Production, 3 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

**TOTAL .....20 CREDITS**

### **ADDITIONAL NOTES:**

**PURPOSE:** The purpose of this certificate is to give both the aspiring and professional music technology artist the core experience in contemporary music industry and technology applications. This certificate will lend further development for the practicing music technologist as an update for new applications in the Music Creative Technology field with respect to contemporary audio recording, MIDI application, and music composition.

This certificate is also a great access point to begin the Associate of Fine Arts (Two-Year) Music Creative Technologies.

Revised: 03/17/2016

Implementation: Fall 2016



# PROGRAM OVERVIEW

## NATURAL SCIENCE

RCTC's Natural Science Associate in Science degree program is designed to articulate with a four year degree in the sciences. Transfer students will find that this degree fits well with many Chemistry, Biology, and Physics programs. 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.

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

### *Additional Information*

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

### *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*

The Higher Learning Commission accredits Rochester Community and Technical College.



# RCTC PROGRAM PLAN

## NATURAL SCIENCE

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 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 .....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. PROGRAM CORE REQUIREMENTS.....29 CREDITS**

PHYS 1117, Introductory Physics I, 5 cr

PHYS 1118, 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

BIOL 1211, Principles of Nutrition, 3 cr

MATH 2208, Fundamentals of Statistics, 4 cr

**TOTAL .....60 CREDITS**

### **ADDITIONAL NOTES:**

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.

Revised: 02/13/2017

Implementation: Fall 2017

# PROGRAM OVERVIEW

## ASSOCIATE DEGREE NURSING

The Associate Degree Nursing Program provides students with the knowledge, skills, and attitudes necessary for the practice of professional nursing. The integrating concepts of professionalism, critical thinking, caring, collaboration, and nursing interventions are embedded into each nursing course. Program coursework provides a framework for students learning in the classroom, laboratory, and clinical settings. These educational experiences allow the student to achieve defined program learning outcomes.

An advanced placement, LPN Mobility track, is available for Licensed Practical Nurses who have graduated from a State approved practical nursing school and who have completed the general education courses required for Semester I (see program plan). Individuals eligible for this track receive six core-nursing credits for the first semester and can complete the program in three semesters.

Upon successful completion of the program, students are eligible to apply for the National Council Licensure Examination – Registered Nurse (NCLEX-RN) and enter the profession of nursing as defined by 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. Core nursing requirements include Fundamentals of Nursing, Adult Nursing I and II, Maternal Newborn Nursing, Mental Health Nursing, Pediatric Nursing, Advanced Concepts in Nursing, and Leadership and Management in Nursing.

### *Program/Degree Options*

Associate in Science Degree, Nursing, 64 credits

### *Program Start Date(s)*

This program requires a separate application with specific admission criteria. Please visit the program website at [www.rctc.edu/program/nurs](http://www.rctc.edu/program/nurs) for more details. Specific applications deadlines for each semester are noted on the program applications. Students can begin general education requirements any semester. RCTC starts a Nursing cohort in fall and spring semesters.

### *Career Opportunities/Information*

For the most up to date statewide occupational employment information, please visit the following website: [www.careerwise.mnscu.edu](http://www.careerwise.mnscu.edu)

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

The Associate Degree Nursing program is approved by the Minnesota Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing, Inc. located at 3343 Peachtree Road NE, Suite 850, in Atlanta, Georgia 30326. For more information, visit their website at [www.acenursing.org/](http://www.acenursing.org/)

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

### *Additional Information*

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

### *Gainful Employment Programs*

U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. This information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)



# RCTC PROGRAM PLAN

## NURSING (A.D.)

Associate in Science

<b>I. MINNESOTA TRANSFER CURRICULUM (MNTC)/</b>	
<b>GENERAL EDUCATION REQUIREMENTS.....</b>	<b>30 CREDITS</b>
<b>GOAL 1: WRITTEN AND ORAL COMMUNICATION .....</b>	<b>4 CR</b>
ENGL 1117, Reading and Writing Critically I, 4 cr	
<b>GOAL 3: NATURAL SCIENCES .....</b>	<b>16 CR</b>
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, Organic and Biological Chemistry I, 4 cr	
<b>GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....</b>	<b>7 CR</b>
PSYC 2618, General Psychology, 4 cr	
SOC 1614, Introduction to Sociology, 3 cr	
<b>GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....</b>	<b>3 CR</b>
PHIL 1135, Bioethics, 3 cr ( <b>Recommended</b> )	
<b>OR</b>	
PHIL 1125, Ethics, 3 cr	
<b>II. PROGRAM CORE REQUIREMENTS.....</b>	<b>34 CREDITS</b>
NURS 1117, Fundamentals of Nursing, 6 cr	
NURS 1118, Adult Nursing I, 6 cr	
NURS 2217, Adult Nursing II, 6 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	
<b>TOTAL .....</b>	<b>64 CREDITS</b>

### ADDITIONAL NOTES:

**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).

# RCTC PROGRAM PLAN

The program is approved by the Minnesota Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 ([www.acenursing.org](http://www.acenursing.org)).

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.

## 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

NURS 1117, 6 cr

BIOL 1217, 4 cr

CHEM 1117, 4 cr

ENGL 1117, 4 cr

**TOTAL 18 cr**

### Semester II

NURS 1118, 6 cr

BIOL 1218, 4 cr

BIOL 2021, 4 cr

PSYC 2618, 4 cr

**TOTAL 18 cr**

### Semester III

NURS 2207 (8 wks), 3 cr

NURS 2208 (8 wks), 3 cr

NURS 2217, 6 cr

SOC 1614, 3 cr

**TOTAL 15 cr**

### Semester IV

NURS 2209 (8 wks), 3 cr

NURS 2218 (8 wks), 3 cr

NURS 2219 (8 wks), 4 cr

PHIL 1125/1135, 3 cr

**TOTAL 13 cr**

## **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.

Revised: 04/18/2017

Implementation: Fall 2017

# PROGRAM OVERVIEW

## PERSONAL TRAINER

RCTC offers two options for both Personal Trainer and Group Fitness Instructor. The Personal Trainer Diploma program will provide a broad foundation of knowledge to assist students to assess, design and prescribe individualized fitness training programs for clients, while the Group Fitness Instructor Certification program, explores teaching fitness in a class setting. Both programs address the needs of assisting others for improving 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, Methods of Group Fitness, Sport Psychology, Sport Nutrition for Performance, Lifetime Fitness, 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 Recreation Program Leader, Boot Camp, Circuit Training, Strength Training for Men & Women, Body Toning, Jogging & Walking, Step Aerobics, Yoga, Tai Chi and PT/GF Exam Certification prep.

### *Program/Degree Options*

Personal Trainer Diploma  
Group Fitness Instructor Certificate  
Related Field Programs  
Sport Management - Coaching

### *Program Start Date(s)*

Students may begin coursework any semester. However not all courses are 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 Diploma program will prepare students to work with individuals to assist them in improving their fitness levels, while the Group Fitness Instructor Certification program will prepare students to work in class settings to lead groups of clients in a variety of fitness based activities. This coursework will expose students to the resources and professional networks that they will require to stay current in their profession over the length of their career. PT/GFI opportunities are

available in almost every community in our nation through programs offered at recreational venues, public/private fitness clubs, or as independent businesses.

Related areas find Personal Trainers working with team sports or individual athletes to improve sport specific skills at every level from youth recreational sports to interscholastic, intercollegiate, amateur and professional teams, whereas, Group Fitness Instructors can implement and lead programs for persons of all ages to meet all fitness needs in any classroom setting. These programs will enable individuals to start with a solid knowledge base and a nationally recognized certification to begin their career.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by the Higher Learning Commission. 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:  
[www.rctc.edu/catalog/articulations/index.html](http://www.rctc.edu/catalog/articulations/index.html).

### *Additional Information*

Program Website: [www.rctc.edu/program/pt-gfi/](http://www.rctc.edu/program/pt-gfi/)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment Programs*

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# RCTC PROGRAM PLAN

## PERSONAL TRAINER

Diploma

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/ GENERAL EDUCATION REQUIREMENTS.....4 CREDITS

**GOAL 3: NATURAL SCIENCES .....4 CR**

**Choose from one of the following:**

BIOL 1107, Fundamentals of Anatomy and Physiology, 4 cr

BIOL 1110, Human Biology, 4 cr

BIOL 1217, Anatomy and Physiology I, 4 cr

### II. PROGRAM CORE REQUIREMENTS.....24 CREDITS

HLTH 1110, CPR/AED for the Professional Rescuer, 1 cr

PHED 1105, Lifetime Fitness, 3 cr

PHED 2241, Essentials of Personal Training, 3 cr

PHED 2242, Essentials of Strength & Conditioning, 3 cr

PHED 2245, GF/PT Certification Exam Prep, 2 cr

PHED 2249, Prevention and Care of Athletic Injuries I, 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 coursed for a minimum of).....5 CREDITS

PHED 1112, Jogging and Walking, 1 cr

PHED 1122, Circuit Training, 1 cr

PHED 1133, Strength Training for Men and Women, 1 cr

PHED 1150, Basic TRX Training, 1 cr

PHED 1151, High Intensity Interval Training (HITT) with TRX Suspension Training, 1 cr

PHED 1189, Boot Camp, 1 cr

PHED 2240, Methods of Group Fitness, 3 cr

REC 2210, Recreation Program Leader, 3 cr

**TOTAL .....33 CREDITS**

Revised: 04/08/2016

Implementation: Fall 2016



# PROGRAM OVERVIEW

## PHOTOGRAPHY

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, and Web Design. The certificate program allows students to focus on Photography.

### *Curriculum-at-a-Glance*

Coursework may include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Photography I, Darkroom Photography, Photography II, Studio Lighting Techniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Animation and 3D Modeling, Web Design I and II, Motion Graphics I and II, Directed Studio, 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; Web Design, Associate in Science Degree Program; Photography, Certificate Program.

### *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, and photography. 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.

Web designers / interaction 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.

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.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

An articulation agreement for Art, Associate in Fine Arts Degree Program is established between RCTC and Winona State University. An articulation agreement for the Web Design and Development AS is established with Minnesota State University, Moorhead. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program are established with Metropolitan State University. For additional information on the most current list of RCTC program articulations see us at: [www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/)

### *Additional Information*

Program Website: [www.rctc.edu/program/art/](http://www.rctc.edu/program/art/)  
Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).





# RCTC PROGRAM PLAN

## ART + DESIGN: PHOTOGRAPHY

Certificate

### I. PROGRAM CORE REQUIREMENTS.....26 CREDITS

ART 1121, 2D Design, 3 cr  
 ART 1184, Photography I, 3 cr  
 ART 1284, Darkroom Photography II, 3 cr  
 ART 2280, Photography II, 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 one 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 one 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**

#### **ADDITIONAL NOTES:**

**PURPOSE:** The Photography Certificate is a two-year sequence of Art courses that emphasizes artistic expression and builds technical, visual, and 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: 03/05/2014

Implementation: Fall 2014

# PROGRAM OVERVIEW

## PRACTICAL NURSING

The Practical Nursing (PN) program provides students with the knowledge, skills, and attitudes necessary to provide direct nursing care to patients in hospitals, nursing homes, clinics, home health care, and community based settings. This educational program includes classroom theory, laboratory experiences, and supervised clinical experiences with defined program learning outcomes.

Upon successful completion of the program, students are eligible to apply for the National Council Licensure Examination – Practical Nursing (NCLEX-PN) and enter the profession of nursing as defined by Minnesota statutes (148.171 Subd. 14, Practice of Practical Nursing).

### *Curriculum-at-a-Glance*

Coursework for the Practical Nursing program includes 12 general education credit requirements and 27 core program credits. Core program courses include Success in Nursing, Nursing Fundamentals in the Care of the Older Adult, Pharmacology for Practical Nursing, Adult Nursing, Family and Mental Health Concepts, and Integrated Clinical Application.

### *Program/Degree Options*

Practical Nursing Diploma, 39 credits

### *Program Start Date(s)*

General education courses may be taken prior to or concurrent with core program courses. The program length is 10 months, starting in August with completion in June.

### *Career Opportunities/Information*

Students completing the PN Program are eligible to apply for the LPN Mobility track for the Associate Degree Nursing program.

For the most up-to-date statewide employment information visit the following website.  
[www.careerwise.mnscu.edu](http://www.careerwise.mnscu.edu)

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

The PN program is approved by the Minnesota Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing, Inc. located at 3343 Peachtree Road NE, Suite 850, in Atlanta, Georgia 30326. For more information, visit their website at [www.acenursing.org/](http://www.acenursing.org/)

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

### *Additional Information*

Program Website: <http://www.rctc.edu/program/nurs>  
Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)  
More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)

### *Gainful Employment Programs*

U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. This information can be found at [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)



# RCTC PROGRAM PLAN

## PRACTICAL NURSING

Diploma

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

#### GENERAL EDUCATION REQUIREMENTS.....12 CREDITS

BIOL 1107\*, Fundamentals of Anatomy and Physiology, 4 cr

ENGL 1117\*, Reading and Writing Critically I, 4 cr

PSYC 2618\*, General Psychology, 4 cr

### II. PROGRAM CORE REQUIREMENTS.....27 CREDITS

PNM 1200, Pharmacology for Practical Nursing, 3 cr

PNM 1210, Success in Nursing, 1 cr

PNM 1250, Nursing Fundamentals in the Care of the Older Adult, 7 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

#### ADDITIONAL NOTES:

**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 Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 ([www.acenursing.org](http://www.acenursing.org)).

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.

# RCTC PROGRAM PLAN

## PRACTICAL NURSING COURSE SEQUENCE:

<b>FALL</b> <b>Semester I</b>		<b>SPRING</b> <b>Semester II</b>		<b>SUMMER</b> <b>Semester III</b>	
PNM 1210	1 cr	PNM 1320	6 cr	PNM 1440	4 cr
PNM 1250	7 cr	PNM 1340	6 cr		
PNM 1200	3 cr	PSYC 2618*	4 cr		
ENGL 1117*	4 cr				
BIOL 1107*	4 cr				
<b>TOTAL</b>	<b>19 cr</b>	<b>TOTAL</b>	<b>16 cr</b>	<b>TOTAL</b>	<b>4 cr</b>

\* ENGL 1117 and BIOL 1107 must be completed prior to Semester II courses.

\* PSYC 2618 must be completed prior to Semester III.

### **Notice of Minnesota Background Check Requirement**

Minnesota Statue 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.

Revised: 04/18/2017

Implementation: Fall 2017

# PROGRAM OVERVIEW

## PRECISION MANUFACTURING TECHNOLOGY

RCTC's Precision Manufacturing Technology (PMT) major is designed to prepare students for a technical career using Computer Aided Manufacturing (CAM) and Computer Aided Drafting (CAD) tools and techniques. PMT 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 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.

### *Program/Degree Options*

RCTC offers a diploma in Precision Manufacturing Technology. RCTC offers this 35 credit 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 CNC machinists (51-4012) in the United States is \$23.55 per hour. In Minnesota the median hourly wage for machinists is \$25.72.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/pmt](http://www.rctc.edu/program/pmt)  
 Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
 Facebook: [www.facebook.com/RCTCPMT/](https://www.facebook.com/RCTCPMT/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## PRECISION MANUFACTURING TECHNOLOGY

Diploma

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

#### GENERAL EDUCATION REQUIREMENTS.....3 CREDITS

ENGL 1109 (or higher), Introduction to Professional and Technical Communication, 3 cr

### II. PROGRAM CORE REQUIREMENTS.....32 CREDITS

CAD 1230, CAD Data Management, 1 cr

CAD 1039, 3D CAD, 4 cr

CAD 2000, Introduction to CAM, 3 cr

PMT 1095, Blue Print Reading, 1 cr

PMT 1105, Shop Safety, Manual Mill and Lathe Theory, 1 cr

PMT 1115, Measuring, Inspection and Tool Setup, 1 cr

PMT 1255, Basics of CNC Machining and Turning, 1 cr

PMT 1300, Open Manufacturing Lab I, 8 cr

PMT 1705, CNC Coordinates and Offsets, 1 cr

PMT 1755, CNC Manual Operations, 1 cr

PMT 1825, Quality Assurance, 1 cr

PMT 1855, Introduction to GD & T, 1 cr

PMT 1900, Open Manufacturing Lab II, 6 cr

PMT 1950, Manufacturing Internship, 2 cr

**TOTAL .....35 CREDITS**

#### **ADDITIONAL NOTES:**

**PURPOSE:** The Precision Manufacturing Technology major trains an individual for hands on precision model creation. Students will be able to generate 2D models using SolidWorks and program the parts for manufacturing using CAM

#### **PROGRAM ENTRANCE REQUIREMENTS:**

**PREREQUISITES:** Students must have completed or be enrolled in MATH 1015 or tested into MATH 0098.

Revised: 03/10/2015

Implementation: Fall 2015

# PROGRAM OVERVIEW

## SCIENCE FOUNDATIONS A & B

The Science Foundations program provides students currently holding a baccalaureate degree the opportunity to complete science and liberal arts coursework to apply to a variety of professional programs. These include medical, physical therapy, veterinary medicine, physician assistant, occupational therapy, pharmacy, dentistry, chiropractic, osteopathic medicine, as well as other professional programs.

Classes chosen for Science Foundations A certificate prepare students to begin work towards the Science Foundations B certificate. Classes chosen for Science Foundations B certificate will prepare students for pre-professional admissions exams such as the MCAT, PCAT, and DAT as well as fulfill prerequisite requirements for many professional programs.

### *Curriculum-at-a-Glance*

Certificate A: Concepts of Biology, Survey of Life Forms, and Chemical Principles I and II. Elective coursework includes: Anatomy and Physiology I and II, General Microbiology, Genetics, Calculus I and II, Fundamentals of Statistics, and Ethics.

Certificate B: Organic Chemistry I and II and Physics I and II. Elective coursework includes: Anatomy and Physiology I and II, General Microbiology, Genetics, Biochemistry, Calculus I and II, Fundamentals of Statistics, and Ethics.

### *Program/Degree Options*

RCTC offers a 19 credit Science Foundations A Certificate and a 21 credit Science Foundations B Certificate.

### *Program Start Date(s)*

Students can begin general education requirements any semester.

### *Career Opportunities/Information*

These certificates are specifically designed to prepare students for a professional program.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/science-foundations](http://www.rctc.edu/program/science-foundations)

Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)



# RCTC PROGRAM PLAN

## SCIENCE FOUNDATIONS A

Certificate

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)

**GENERAL EDUCATION REQUIREMENTS.....16 CREDITS**

#### GOAL 3: NATURAL SCIENCE

BIOL 1220, Concepts of Biology, 4 cr

BIOL 1230, Survey of Life Forms, 4 cr

CHEM 1127, Chemical Principles I, 4 cr

CHEM 1128, Chemical Principles II, 4 cr

### II. ELECTIVES.....Minimum of 3 Credits

**(See your counselor for additional options)**

BIOL 1217, Principles of Anatomy & Physiology I, 4 cr

BIOL 1218, Principles of Anatomy & Physiology II, 4 cr

BIOL 2021, General Microbiology, 4 cr

BIOL 2300, Genetics, 4 cr

MATH 1127, Calculus I, 5 cr

MATH 1128, Calculus II, 5 cr

MATH 2208, Fundamentals of Statistics, 4 cr

PHIL 1125, Ethics, 3 cr

**TOTAL.....19 CREDITS**

### ADDITIONAL NOTES:

**PURPOSE:** The Science Foundations Certificates A and B provide students currently holding a baccalaureate degree the opportunity to complete science and Liberal Arts coursework (if required) to apply to a variety of professional programs. These include medical, physical therapy, veterinary medicine, physician assistant, occupational therapy, pharmacy, dentistry, chiropractic, osteopathic medicine, as well as other professional benefit from this program. Course prerequisites must have been taken in the past five years, or instructor permission granted to enter classes.

Recent changes to professional program entrance exams may require students to gain or update courses in the humanities. Psychology or sociology courses are available to provide this preparation.

Classes chosen for this certificate prepare students to begin work towards the Science Foundations B Certificate. There is flexibility in the courses and sequencing which allows for adaption to match student needs based on their field of study and transfer coursework. Students must check with their desired professional programs and institutions to ensure this coursework fulfills their prerequisites. Additional coursework may be required for some programs.

An additional application is required for entrance into this program to ensure previous completion of a Bachelor's degree. Implementation: Spring 2016



# RCTC PROGRAM PLAN

## SCIENCE FOUNDATIONS B

Certificate

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....18 CREDITS**

#### **GOAL 3: NATURAL SCIENCES**

CHEM 2127, Organic Chemistry I, 4 cr

CHEM 2128, Organic Chemistry II, 4 cr

PHYS 1117, Introductory Physics I, 5 cr

PHYS 1118, Introductory Physics II, 5 cr

#### **OR**

PHYS 1127, Classical Physics I, 5 cr

PHYS 1128, Classical Physics II, 5 cr

### II. ELECTIVES.....Minimum of 3 Credits

**(See your counselor for additional options)**

BIOL 1217, Principles of Anatomy & Physiology I, 4 cr

BIOL 1218, Principles of Anatomy & Physiology II, 4 cr

BIOL 2021, General Microbiology, 4 cr

BIOL 2300, Genetics, 4 cr

CHEM 2800, Biochemistry, 3 cr

MATH 1127, Calculus I, 5 cr

MATH 1128, Calculus II, 5 cr

MATH 2208, Fundamentals of Statistics, 4 cr

PHIL 1125, Ethics, 3 cr

**TOTAL .....21 CREDITS**

#### **ADDITIONAL NOTES:**

**PURPOSE:** The Science Foundations Certificates A and B provide students currently holding a baccalaureate degree the opportunity to complete science and liberal arts coursework (if required) to apply a variety of professional programs. These include medical, physical therapy, veterinary medicine, physician assistant, occupational therapy, pharmacy, dentistry, chiropractic, osteopathic medicine, as well as other professional programs. Students with a degree or coursework in the sciences that is not considered current may also benefit from this program. Course prerequisites must have been taken in the past five years, or instructor permission granted to enter classes.

Recent changes to professional program entrance exams may require students to gain or update course in humanities. Psychology or sociology courses are available to provide this preparation.

Classes chose for this certificate will prepare students for pre-professional admissions exams such as the MCAT, PCAT and DAT as well as fulfill prerequisites requirements for many professional programs. There is flexibility in the courses and sequencing which allows for adaptation to match student needs based on their field of study and transfer coursework. Students must check with their desired professional programs and institutions to ensure this coursework fulfills their prerequisites. Additional coursework may be required for some programs.

An additional application is required for entrance into this program to ensure previous completion of a Bachelor's degree.

Implementation: Spring 2016



**WWW.RCTC.EDU**

851 30th Avenue SE | Rochester MN 55904 | 1-800-247-1296

A member of the Minnesota State system and an Affirmative Action/Equal Opportunity College.  
RCTC provides accessible, affordable, quality learning opportunities to serve a diverse and growing community.

# PROGRAM OVERVIEW

## SPORT MANAGEMENT

RCTC offers an Associate in Applied Science degree for students interested in a career in Sport Management. Sport Management positions are found in a wide variety of community and corporate or small business settings.

### *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. Areas of study, include courses such as; Introduction to Turf, Development & Management of Sport/Recreation Facilities, and Recreational Program Leadership, Introduction to Business and Microsoft Office Suite instruction. Upon completion of coursework an internship is also required.

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 Prevention and Care of Athletic Injuries.

### *Program/Degree Options*

Associate in Applied Science Degree

Related Field Programs:

- Personal Trainer Diploma
- Group Fitness Instructor Certificate
- Coaching Diploma

### *Program Start Date(s)*

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

### *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 the next decade.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by the Higher Learning Commission.

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

### *Additional Information*

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



# RCTC PROGRAM PLAN

## SPORT MANAGEMENT

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)

**GENERAL EDUCATION REQUIREMENTS.....19 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION ..... minimum of 7 CR**

COMM 1114, Fundamentals of Public Speaking, 3 cr

OR

COMM 1130, Interpersonal Communication, 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 ..... minimum of 3 CR**

**GOAL 4: MATHEMATICS/LOGICAL REASONING ..... minimum of 3 CR**

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES.... minimum of 3 CR**

ECON 2214, Principles of Economics, Micro, 3 cr (**Recommended**)

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY.... minimum of 3 CR**

### II. PROGRAM 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

BTEC 2350, Microcomputer Business Applications, 3 cr

HLTH 1114, Responding to Emergencies, 3 cr

PHED 2270, Introduction to Physical Education, 2 cr

PHED 2280, Introduction to Sport Facility Management, 3 cr

REC 2210, Recreation Program Leader, 3 cr

### III. AREA OF STUDY:.....9 CREDITS

**Sport/Athletic Facilities Management:**

HORT 1318, Introduction to Turf, 3 cr

PHED 2281, Development and Management of Sport/Recreation Facilities, 3 cr

PHED 2296, Sport Administration Internship II, 3 cr

### IV. ELECTIVES.....9 CREDITS

**Choose a minimum of six 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, Group Fitness/Personal Trainer Certification Exam Prep, 2 cr

# RCTC PROGRAM PLAN

PHED 2249, Prevention and Care of Athletic Injuries I, 3 cr

**Choose minimum of two credits:**

Any PHED 1100 1-credit activity level class (1 credit each), two cr

**TOTAL .....60 CREDITS**

Revised: 03/17/2016

Implementation: Fall 2016

# PROGRAM OVERVIEW

## SUPERVISORY LEADERSHIP

The Supervisory Leadership Program is only available through Business and Workforce Education and is designed for employed individuals interested in acquiring or improving their leadership skills. The courses are taught by business professionals with real-life, hands-on business experience. The core curriculum is structured to allow students to remain employed while attending classes on a part-time basis. The classes are offered in an accelerated format allowing students to focus on one class at a time. The course delivery is a hybrid model, each course is a blend of online coursework and face-to-face evening classes.

### *Curriculum-at-a-Glance*

The Supervisory Leadership program is designed to meet the increasing demand for leaders in the workplace. This program will allow students to increase their skills in leadership, communications, team building, employee motivation, creative problem solving, performance management, budgeting, managing priorities, developing productive working relationships, conducting effective meetings and many more supervisory leadership techniques and tools.

### *Program/Degree Options*

Students have the option of completing the full AAS Degree or two stackable certificates. The Supervisory Leadership AAS Degree consists of 60 credits. The Employee Development Certificate is 17 credits and the Supervisory Leadership Certificate is 16 credits.

### *Program Start Date(s)*

The start dates for the program are in the fall. Please contact RCTC Business and Workforce Education at [www.rctc.edu/workforce](http://www.rctc.edu/workforce) for more information.

### *Career Opportunities/Information*

Career advancement opportunities exist within multiple industries that demand the leadership and supervisory skills that students will develop in this program.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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

### *Additional Information*

Program Website: [www.rctc.edu/workforce/online/smgmt/](http://www.rctc.edu/workforce/online/smgmt/)

Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)

More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: <http://www.rctc.edu/catalog/programs>



# RCTC PROGRAM PLAN

## SUPERVISORY LEADERSHIP

Certificate

### I. PROGRAM CORE REQUIREMENTS..... 16 CREDITS

ACCT 1415, Budgeting for Decision Making, 3 cr  
 SMGT 1115, Strategies for Personal Leadership, 3 cr  
 SMGT 1125, Leadership Development and Ethics, 3 cr  
 SMGT 1217, Foundations of Quality and Continuous Improvement, 3 cr  
 SMGT 1221, Decision Making and Problem Solving, 3 cr  
 SMGT 1420, Documentation and Written Communication for Supervisors, 1 cr

**TOTAL..... 16 CREDITS**

### **ADDITIONAL NOTES:**

**PURPOSE:** The Supervisory Leadership Certificate is an individually available component of the Supervisory Leadership A.A.S. Degree program. It is specifically designed to provide employed students with the skills necessary to be successful in a position of supervisory leadership.

Courses in the certificate program focus on skills and techniques directly related to supervisory leadership issues.

Students will have the opportunity to increase their skills in leadership, interpersonal skills, workplace ethics, decision-making, quality and continuous improvement, and many more supervisory leadership related topics.

This program is structured to allow students to remain employed while attending classes on a part-time basis. Classes are scheduled primarily at night and on weekends. Upon approval students may transfer applicable transcripted course credits and/or experiential learning to satisfy required or elective program credits.

Revised: 04/07/2016

Implementation: Fall 2016

# RCTC PROGRAM PLAN

## SUPERVISORY LEADERSHIP

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....16 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....7 CR**

COMM 1114, Fundamentals of Speech, 3 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 4: MATHEMATICS/LOGICAL REASONING.....3 CR**

MATH 1111, Contemporary Concepts in Mathematics, 3 cr (**Recommended**)

**GOAL 5: HISTORY AND THE SOCIAL AND BEHAVIORIAL SCIENCES .....3 CR**

ECON 1101, Introduction to Economics, 3 cr

ECON 2214, Principles of Economics: Micro, 4 cr

PSYC 1611, Psychology of Adjustment, 3 cr

PSYC 2618, General Psychology, 4 cr

SOC 1614, Introduction to Sociology, 3 cr

**GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

Credits from MNTC Goal 6

### II. PROGRAM CORE REQUIREMENTS.....32 CREDITS

ACCT 1415, Budgeting for Decision Making, 3 cr

BUS1307, Legal Issues for Supervisors, 3 cr

SMGT 1115, Strategies for Personal Leadership, 3 cr

SMGT 1125, Leadership Development and Ethics, 3 cr

SMGT 1137, Leading Innovation and Change, 3 cr

SMGT 1217, Foundations of Quality, 3 cr

SMGT 1221, Decision Making and Problem-Solving Skills, 3 cr

SMGT 1225, Team Building and Facilitation Skills, 3 cr

SMGT 1327, Managing Employee Performance and Conflict, 3 cr

SMGT 1352, Recruiting, Retention and Employee Development, 4 cr

SMGT 1420, Documentation and Written Communication Skills for Supervisors, 1 cr

### III. PROGRAM TECHNICAL REQUIREMENTS.....12 CREDITS

BTEC 2350, Microcomputer Business Applications, 3 cr

BUS 2232, Principles of Management, 3 cr

BUS 2235, Organizational Dynamics, 3 cr

BUS 2296, Business Internship, 3 cr

**TOTAL .....60 CREDITS**

# RCTC PROGRAM PLAN

## ADDITIONAL NOTES:

**PURPOSE:** The Supervisory Leadership 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.

Students will have the opportunity to increase their skills in leadership, communications, team building, employee motivation, creative problem solving, performance management, coaching, managing priorities, building productive working relationships, conducting effective meetings, and many more supervisory leadership techniques and tools.

Organizations today are demanding higher levels of supervisory and leadership competence from their frontline leaders. The Supervisory Leadership Program can provide students with the supervisory expertise and leadership skill to meet those challenges.

This program is structured to allow students to remain employed while attending classes on a part-time basis. Classes are scheduled primarily at night and on weekends. Upon approval, students may transfer applicable transcripted course credits and/or experiential learning to satisfy required or elective program credits.

Revised: 04/07/2016

Implementation: Spring 2016



# RCTC PROGRAM PLAN

## SUPERVISORY LEADERSHIP

Certificate

### I. PROGRAM CORE REQUIREMENTS..... 16 CREDITS

ACCT 1415, Budgeting for Decision Making, 3 cr  
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 SMGT 1221, Decision Making and Problem Solving, 3 cr  
 SMGT 1420, Documentation and Written Communication for Supervisors, 1 cr

**TOTAL..... 16 CREDITS**

### ADDITIONAL NOTES:

**PURPOSE:** The Supervisory Leadership Certificate is an individually available component of the Supervisory Leadership A.A.S. Degree program. It is specifically designed to provide employed students with the skills necessary to be successful in a position of supervisory leadership.

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This program is structured to allow students to remain employed while attending classes on a part-time basis. Classes are scheduled primarily at night and on weekends. Upon approval students may transfer applicable transcripted course credits and/or experiential learning to satisfy required or elective program credits.

Revised: 04/07/2016

Implementation: Fall 2016

# PROGRAM OVERVIEW

## SURGICAL TECHNOLOGY

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 of 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), 25400 US Hwy. 19 N., Suite 158, Clearwater, FL 33763 (Phone 727-210-2350) [www.caahep.org](http://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](http://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: [www.rctc.edu/catalog/articulations/](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/>



# RCTC PROGRAM PLAN

## SURGICAL TECHNOLOGY

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....18 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 .....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 BEHAVIORIAL SCIENCES .....3 CR**

PSYC 1611, Psychology of Adjustment, 3 cr

### II. PROGRAM CORE REQUIREMENTS.....42 CREDITS

BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr

BTEC 2870, Employment Strategies, 1 cr

NA 1610, Nursing Assistant for Surgical Technology, 5 cr

ST 2110, Surgical Technology Medications and 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**

### ADDITIONAL NOTES:

#### **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>

**PROGRAM 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).

Revised: 11/19/2014; Implementation: Spring 2015

# PROGRAM OVERVIEW

## VETERINARY TECHNOLOGY

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 general education and 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 (AAS) 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 (AAS) degree.

Application to the Veterinary Technician AAS 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.

### *Accreditations/Articulations*

The Higher Learning Commission accredits Rochester Community and Technical College.

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:  
[www.rctc.edu/catalog/articulations/index.html](http://www.rctc.edu/catalog/articulations/index.html)

### *Additional Information*

Program Website: [www.rctc.edu/program/vt/](http://www.rctc.edu/program/vt/)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)



# RCTC PROGRAM PLAN

## VETERINARY TECHNICIAN

Associate in Applied Science

### I. MINNESOTA TRANSFER CURRICULUM (MNTC)/

**GENERAL EDUCATION REQUIREMENTS.....16 CREDITS**

**GOAL 1: WRITTEN AND ORAL COMMUNICATION .....3 CR**

COMM 1114, Fundamentals of Public Speaking, 3 cr

**OR**

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 .....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: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY .....3 CR**

**Choose one of the following courses:**

PHIL 1125, Ethics, 3 cr

**OR**

Credits from MNTC Goal 6

**Required General Education courses must be completed with a grade of C or better.**

### II. PROGRAM CORE REQUIREMENTS.....59 CREDITS

MATH 1026, Mathematics for Vet Technicians, 1 cr

\*VT 1010, Veterinary Medical Terminology and Anatomy, 3 cr

\*VT 1110, Introduction to Animal Health Technology, 3 cr

VT 1220, Small Animal Nursing Techniques I, 3 cr

VT 1410, Veterinary Surgical Nursing and Anesthesia, 2 cr

VT 1510, Veterinary Office Procedures, 2 cr

VT 1610, Fundamentals of Diagnostic Imaging, 3 cr

VT 1710, Introduction to Veterinary Technology Field Experience, 2 cr

VT 1810, Parasitology, 2 cr

VT 1900, Small Animal Care and Management, 2 cr

VT 2020, Comparative Veterinary Anatomy and Physiology, 2 cr

VT 2230, Small Animal Nursing Techniques II, 3 cr

VT 2240, Small Animal Nursing Techniques III, 2 cr

VT 2250, Large Animal Procedures, 3 cr

# RCTC PROGRAM PLAN

VT 2260, Veterinary Surgical Nursing II, 2 cr  
 VT 2270, Laboratory Animal Care and Management, 3 cr  
 VT 2620, Applied Diagnostic Imaging, 1 cr  
 VT 2720, Veterinary Technician Field Experience, 4 cr  
 VT 2820, Clinical Laboratory Techniques I, 3 cr  
 VT 2830, Clinical Laboratory Techniques II, 3 cr  
 VT 2900, Kennel Management and Nutrition, 2 cr  
 VT 2910, Pharmacology and Disease for Veterinary Technicians, 4 cr  
 VT 2920, Small Animal Disease and Diagnostics, 2 cr  
 VT 2930, Applied Pharmacology and Nutrition, 2 cr

**TOTAL ..... 75 CREDITS**

## **ADDITIONAL NOTES:**

**PURPOSE:** The Veterinary Technology department offers one major option: Veterinary Technician A.A.S Degree. The Veterinary Technician 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 the Veterinary Technician program in the 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 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, and Herd Health Managers.

## **ADMISSION: 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 November 15. Only offering a spring start.
7. Thirty-six students will be admitted annually.

# RCTC PROGRAM PLAN

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.

## PROGRAM ENTRANCE REQUIREMENTS:

**\*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.

Revised: 10/27/2015

Implementation: Fall 2015



# PROGRAM OVERVIEW

## WEB DESIGN

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, and Web Design. The certificate program allows students to focus on Photography.

### *Curriculum-at-a-Glance*

Coursework can include: Drawing I and II, 2D Design, 3D Design, Painting I and II, Ceramics I and II, Photography I, Darkroom Photography, Photography II, Studio Lighting Techniques, Computer as a Creative Media, Graphic Design I and II, Typography, Digital Art I and II, Animation and 3D Modeling, Web Design I and II, Motion Graphics I and II, Directed Studio, 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; Web Design, Associate in Science Degree Program; Photography, Certificate Program.

### *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, and photography. 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.

Web designers / interaction 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.

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.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

An articulation agreement for Art, Associate in Fine Arts Degree Program is established between RCTC and Winona State University. An articulation agreement for the Web Design and Development AS is established with Minnesota State University, Moorhead. Articulation agreements for the Graphic Design AS Degree Program and the Interaction Design AS Degree Program are established with Metropolitan State University.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/art/](http://www.rctc.edu/program/art/)  
Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)  
More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).





# RCTC PROGRAM PLAN

## ART + DESIGN: WEB DESIGN

Associate in Science Degree

### 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

OR

COMM 1130, Interpersonal Communication, 3 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**

CHEM 1101, Elements of Chemistry, 3 cr

**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 .....6 CR**

ART 1110, Art Appreciation, 3 cr

ART 1120, Computer as Creative Media, 3 cr

**MNTC GENERAL EDUCATION ELECTIVES.....8 CR**

Credits chosen from courses meeting the MNTC Competencies in Goal areas 1-10.

### II. PROGRAM CORE REQUIREMENTS.....30 CREDITS

ART 1124, Graphic Design I, 3 cr

ART 1130, Digital Art I, 3 cr

ART 1232, Web Design I, 3 cr

ART 1233, Web Design II, 3 cr

ART 2240, Motion Graphics I, 3 cr

ART 2241, Motion Graphics II, 3 cr

ART 2292, Directed Studio, 3 cr

#### **ELECTIVES: Choose three of the following:**

ART 1121, 2D Design, 3 cr

ART 1131, Presentation Graphics, 3 cr

ART 1184, Photography I, 3 cr

ART 2230, Digital Art II, 3 cr

ART 2237, Animation and 3D Modeling, 3 cr

COMP 1731, Programming for the Internet, 3 cr

# RCTC PROGRAM PLAN

COMP 1741, JavaScript, 3 cr  
COMP 1751, Mobile Application Development, 3 cr

**TOTAL ..... 60 CREDITS**

## **ADDITIONAL NOTES:**

**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.

Revised: 7/31/2014  
Implementation: Spring 2015

# PROGRAM OVERVIEW

## WELDING TECHNOLOGY

RCTC's Welding Technology 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 weldability of metals and quality control.

### *Curriculum-at-a-Glance*

Instruction will include Welding Theory, Blueprint Reading, Shielded Metal Arc, Gas Metal Arc, Gas Tungsten Arc and Oxy-fuel Gas 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*

The Higher Learning Commission accredits Rochester Community and Technical College.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/welding/](http://www.rctc.edu/program/welding/)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## WELDING TECHNOLOGY

Certificate

### I. PROGRAM CORE REQUIREMENTS.....17 CREDITS

MATH 1016, Technical Math Essentials, 1 cr

**OR**

MATH 1015, Applied Technical Math, 3 cr

WELD 1001, Blueprint Reading, Process Theory and Safety, 4 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, 2 cr

**TOTAL .....17 CREDITS**

### **ADDITIONAL NOTES:**

**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.

Revised: 02/25/2015

Implementation: Fall 2015

# PROGRAM OVERVIEW

## WORKPLACE COMMUNICATION

Minnesota and national employer data indicates that strong communication skills in areas such as interpersonal (one-on-one) communication, conflict management, interviewing, public speaking, and team/group interaction are crucial to success in the workplace. In addition, employers note that communicating effectively between cultures, generations, and genders is important, especially in the rapidly changing mediated communication world (texting, emails). These certificates offer a broad depth and breadth of knowledge and skills in the communication field. The Workplace Communication Certificate differentiates job applicants from others in their field by demonstrating that they are proficient in the art of communication. The Certificate in Communication Studies builds a solid foundation for further study in Communication for students who plan to transfer to four-year institutions by offering a broad spectrum of communication theory and application.

### *Curriculum-at-a-Glance*

Depending on the option selected, coursework may include: Interpersonal Communication, Public Speaking, Intercultural Communication, Team/Small Group Communication, and Career Communication.

### *Program/Degree Options*

RCTC offers two Communication Studies certificate options: the Workplace Communication Certificate (9 credits) and the Communication Studies Certificate (16 credits).

### *Program Start Date(s)*

Students can start coursework any semester and all courses are offered online. Only one section of some courses are offered every semester so students are encouraged to meet with program advisors to plan ahead.

### *Career Opportunities/Information*

While there is no specific occupation that this certificate serves, Minnesota and national employer data indicates employers are looking for, but not finding, communication training in the following areas: interpersonal communication skills, team/group communication skills, conflict management skills, presentation skills, and interviewing skills. This program will strengthen skills in the areas above.

### *Accreditations/Articulations*

Rochester Community and Technical College is accredited by The Higher Learning Commission.

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

### *Additional Information*

Program Website: [www.rctc.edu/program/comm](http://www.rctc.edu/program/comm)  
Program Plan: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)  
More Information: [www.rctc.edu/contact](http://www.rctc.edu/contact)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible.

The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## WORKPLACE COMMUNICATION

Certificate

- I. PROGRAM CORE REQUIREMENTS..... 6 CREDITS**  
 COMM 1130, Interpersonal Communication, 3 cr  
 COMM 2130, Team/Small Group Communication, 3 cr
- II. ADDITIONAL REQUIREMENTS.....3 CREDITS**  
**Select one course from the courses listed below:**  
 COMM 1114, Fundamentals of Public Speaking, 3 cr  
 COMM 2100, Intercultural Communication, 3 cr
- TOTAL .....9 CREDITS**

### ADDITIONAL NOTES:

**PURPOSE:** The Workplace Communication Certificate is targeted for those who wish to strengthen their “soft skills” via practical application of communication theory. Employees surveyed often report teamwork, conflict management skills, oral communication, and interpersonal skills are crucial to success in the workplace. The Workplace Communication Certificate will build foundations for employees, managers and supervisors to implement communication techniques and skills into their workplace and may help differentiate them from others in the competitive marketplace.

Implementation: Fall 2014

# PROGRAM OVERVIEW

## YOUTH WORK

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, youth ministry, social work, or psychology.

### *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. Graduates may find themselves working in school settings such as: after-school programs, recreation and sports, outdoor/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.

### *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: [www.rctc.edu/catalog/articulations](http://www.rctc.edu/catalog/articulations)

### *Additional Information*

Program Website: [www.rctc.edu/program/cd/index.cfm](http://www.rctc.edu/program/cd/index.cfm)  
Program Plan: [www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)  
More Information: [www.rctc.edu/contact/](http://www.rctc.edu/contact/)

### *Gainful Employment Programs*

The U.S. Department of Education's (USDE) gainful employment regulations require disclosure of certain program information for programs that lead to certificates or diplomas and are financial aid eligible. The most current RCTC gainful employment information can be found at: [www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs).



# RCTC PROGRAM PLAN

## YOUTH WORK

Certificate

- I. PROGRAM CORE REQUIREMENTS.....14 CREDITS**  
 CYFS 1001, Introduction to Working with Children, Youth and Families, 3 cr  
 CYFS 2002, Introduction to Youth Work, 3 cr  
 CYFS 2101, Child and Youth Issues, 4 cr  
 CYFS 2241, Experiential Learning, 4 cr
- II. PROGRAM ELECTIVES..... 3 CREDITS**
- TOTAL .....17 CREDITS**

### **ADDITIONAL NOTES:**

**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.

### **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 disqualifying offences 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: 12/22/2012

Implementation: Spring 2012



# **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 1415 Budgeting for Decision Making**

This course is designed to provide students with an understanding of how to prepare, understand and control a budget. The course will discuss financial management concepts, budget creation, along with tools and techniques to track spending and control a budget. These skills are essential for supervisors to be able to understand the role of budgeting in supervisory decision making. (Prerequisites: None). (3 C).

### **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 1810 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 1814 Payroll Accounting**

This course examines the close relationships between the Payroll Department and the Human Resources Department. The course provides a study of the employment process and 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 2217). (3 C/3 Hours/Week).

### **ACCT 2217 Financial Accounting**

This course is an introduction to fundamental accounting concepts that includes analyzing, interpreting and recording transactions. The accounting cycle is covered for service and merchandising corporations. The course also includes the preparation of financial statements in accordance with Generally Accepted Accounting Principles (GAAP) using the accrual method of accounting, and emphasizes the effects of business transactions on the financial statements. Additional topics include accruals and deferrals, revenues, expenses, internal control, inventory, payroll, and fixed assets. (Prerequisites: None). (4 C).

### **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). (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).

### **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; Co-requisites: AMT 1725). (2 C).

#### **AMT 1725 Service and Electrical Lab**

This course covers the service, diagnosis and repair methods of general automotive maintenance and the automotive electrical systems including: starting and charging systems and electrical accessories. (Prerequisites: None; Co-requisites: AMT 1710, AMT 1720). (3 C/6 hrs/wk).

#### **AMT 1730 Brakes Theory**

This course covers the theory of design, operation, diagnosis, and repair of hydraulic brake systems on automobiles and trucks. (Prerequisites: None; Co-requisites: AMT 1735). (2 C/2 lect, 0 lab, 0 OJT).

#### **AMT 1735 Brakes Lab**

This course covers the service, diagnosis and repair of hydraulic brake systems, ABS brake systems and rotor and drum machining/measuring. (Prerequisites: None; Co-requisites: AMT 1730). (4 C/8 hrs/wk).

**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 hrs/wk).

**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: None; Co-requisites: AMT 1740). (2 C/4 hrs/wk).

**AMT 1810 Engine Repair Theory**

This course covers engine design as well as diagnosis, evaluation, repair, and maintenance steps involved in restoring gasoline automotive engines to good running order. (Prerequisites: None). (3 C/3 hrs/wk).

**AMT 1815 Engine Repair Lab**

This course covers the diagnosis, repair procedure, and testing and maintenance procedures for automotive gasoline engines. (Prerequisites: None; Co-requisites: AMT 1810). (7 C/14 hrs/wk).

**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/2 hrs/wk).

**AMT 1825 Alignment & Suspension Lab**

This course covers diagnosis, evaluation, adjustment and repair of suspension systems and related automotive components. (Prerequisites: None; Co-requisites: AMT 1820). (3 C/6 hrs/wk).

**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/4 hrs/wk).

**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 hrs/wk).

**AMT 2740 Drive Train Theory**

This course will cover automotive and light truck clutches, manual and automatic transmission/transaxles, differentials and drivelines. Content includes mechanical, electronic and hydraulic system, driveshaft phasing, alignment, balance gear ratios and diagnosis. All-wheel drive and 4 wheel drive systems. (Prerequisites: None; Co-requisites: AMT 2742 and AMT 2744). (3 C/3 hrs/wk).

**AMT 2742 Manual Drive Train Lab**

This course is a hands on lab class and will cover automotive and light truck clutches, manual and automatic transmission/transaxles, differentials and drivelines. Content includes mechanical, electronic, and hydraulic system, driveshaft phasing, alignment, balance, gear ratios, and diagnosis. All-wheel drive and 4 wheel drive. (Prerequisites: None; Co-requisites: AMT 2740). (4 C/8 hrs/wk).

**AMT 2744 Automatic Trans/Transaxle Lab**

This course is a hands-on lab class in which various transmissions and transaxles are diagnosed, basic over haul techniques, are demonstrated, special tool and gauge usage are taught. Electronic controls and scan tool usage is covered extensively. (Prerequisites: None; Co-requisites: AMT 2740). (4 C/8 hrs/wk).

**AMT 2750 Engine Performance Theory**

This course is a hands-on lab class in which various transmissions and transaxles are diagnosed, basic over haul techniques, are demonstrated, special tool and gauge usage are taught. Electronic controls and scan tool usage is covered extensively. (Prerequisites: None; Co-requisites: AMT 2752). (4 C/4 hrs/wk).

**AMT 2752 Engine Performance Lab**

This course is a hands on lab and includes diagnosing, servicing and correcting problems with automotive fuel injection systems, electronic systems, and mechanical conditions related to engine performance and also the operating principles of automotive computers, sensors, and control devices. Extensive use of scan tools for diagnostics. (Prerequisites: AMT 2750 concurrent enrollment; Co-requisites: AMT 2750). (7 C/14 hrs/wk).

**AMT 2770 Heating and Air Conditioning**

This course covers automatic temperature control systems operation, testing, and repairs of vacuum and electrical controls, airflow distribution, and heater system controls. It also will cover the diagnosis and repair of air condition components as well as types of refrigerants used. (Prerequisites: None). (3 C/5 hrs/wk).

**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/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

**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/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

**ANTH 1613 Folklore of the Americas and Beyond**

This course explores the folklore and folk-life of various world cultures. Subjects include folktales, crafts, superstitions, jokes, food, songs, and much more. Each subject will enable students to gain a better perspective of the intangible heritage of different cultures of

this world, and through this a better understanding of their own culture. (Prerequisites: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 7/Human Diversity, Goal 8/Global Perspectives.

## 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 2/Critical Thinking, 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 2/Critical Thinking, 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 1010 Introduction to Art**

This course is an introduction to Studio Arts for all students. Basic concepts of the visual arts will be explored through the creation of 2D and 3D works. Media may include: drawing & painting, sculpture, ceramics, photography, design and digital arts. Historic and contemporary works in different media will be studied and evaluated in relationship with student projects. Exploration and experimentation will lead toward the familiarity of materials and techniques necessary for individual and cultural expression. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

### **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 art media and techniques, and examine major monuments and works of art from prehistoric through contemporary times. There will be a required museum activity as part of this course. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/The 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/Arranged Hours/Week).

### **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 Hours/Week). 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 Hours/Week). 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 Hours/Week). 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 in a drawing, painting, and illustration context. 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, sounds or other digital media 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: Relief and Intaglio**

This course is an introduction to relief and intaglio printmaking processes. Historical and contemporary strategies, approaches and materials are integrated with using printmaking as an expressive medium. (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 Hours/Week). 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 Arts, Literature and Philosophy, Goal 8/Global Perspectives.

### **ART 1184 Photography I**

This course is an introduction to creative photography. Instruction will include basic exposure and creative camera techniques, lighting, and image processing skills. Assignments will cover creative expression and composition with cameras. Instruction will include media presentations, discussion, studio critiques, the history of photography, computer techniques, photographic concepts, and interpretation and analysis of images. Some cameras are available for checkout from the darkroom after paying a small fee at the beginning of the semester. (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 Hours/Week).

### **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/6 Hours/Week). MnTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

### **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 developed through projects. (Prerequisites: None). (3 C/6 Hours/Week).

### **ART 1232 Web Design I**

This course deals with interface design for internet, 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 Web Design II**

This course builds on ART 1232, 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 1284 Darkroom Photography**

This course is an introduction to traditional black and white darkroom techniques. This course covers black and white film development, darkroom printing, and exploration of creative darkroom techniques. Students will make a final portfolio of creative work. Instruction includes media presentation, photo-history, group discussion, and group critiques of student work. Some cameras are available for checkout from the darkroom after paying a small fee at the beginning of the semester. (Prerequisites: None). (3 C). MnTC: Goal 2/Critical Thinking, Goal 6/Humanities The Arts, Literature and Philosophy.

### **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 Hours/Week).

### **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 students 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). (3 C/6 Hours/Week).

### **ART 2237 Animation and 3D Modeling**

This Studio Art course is a foundation course in methods of creating and animating three-dimensional models using software as a studio space. Students will explore concepts of perspective, modeling, surface creation, and lighting, as well as fundamentals of animation, including timing, viewpoint and narrative. This course emphasizes the elements, principles, and ideas that constitute the shared language of all the visual arts. (Prerequisites: None). (3 C/6 lect/0 lab).

### **ART 2240 Motion Graphics I**

This course is the first of a two-part introduction to motion graphics. Students will use design foundations, the design process, and motion principles and concepts to solve motion and animation problems. This course will explore historical influences of animation and motion as well as current trends in motion graphics. (Prerequisites: None). (3 C).

### **ART 2241 Motion Graphics II**

This course is the second of a two-part introduction to motion graphics. Students will use design foundations, the design process, and motion principles and concepts to solve motion and animation problems. This course will explore historical influences of animation and motion as well as current trends in motion graphics. Contemporary interactive and web motion graphics will be emphasized. (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 students 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 Hours/Week).

### **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 Photography II**

This course expands on skills covered in ART 1184. Instruction will include color theory, color profiling and proofing, the fine digital print, and the creation of an extended body of related images. 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. Some cameras are available for checkout from the darkroom after paying a small fee at the beginning of the semester. (Prerequisites: ART 1184). (3 C/6 lect/studio, 0 lab).

### **ART 2281 Art Portfolio**

This course is a foundation course in two-dimensional design and color. It is a basic exploration of the 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. Permission of instructor required to enroll. (Prerequisites: None). (2 C/Hours/Week 1 lect, 2 lab).

### **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 1/Critical Thinking, 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 2/Critical Thinking, 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: None). (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 policy making. (Prerequisites: High school biology or BIOL 1101). (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: None). (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 1211 Principles of Nutrition**

This course covers the science of foods and their structures and functions within the human body, to provide knowledge and awareness of human nutritional requirements and processes. Specific focus will target biological requirements needed in the human body to provide energy and structural materials and to regulate growth, maintenance, and repair of the body's tissues throughout the stages of the human life cycle. The course will enable students to develop foundational knowledge to establish and make informed nutritional choices and understand the role of nutrition in personal, societal, and global issues. (Prerequisites: BIOL 1217 or BIOL 1220; one college chemistry course higher than CHEM 1101). (3 C/3 Hours/Week).

**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, MATH 0098 or equivalent, and college-level reading and writing skills. Co-Requisite: CHEM 1117). (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. College level reading and writing and MATH 0098 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 adaptations 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 1310 Environmental Science Seminar**

This course will provide an understanding of and exposure to environmental science fields, networking, resume building, career exploration, and internship opportunities, as well as aid in students' ability to apply scientific principles to various environmental

science issues. It will introduce students to important research papers in the field of environmental science and ecology. These experiences are aimed to help prepare students for a future in-field experience, job, and/or further education. (Prerequisites: None). (2 C).

#### **BIOL 1400 Environmental Science Internship**

This course will provide exposure to environmental science 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. (Prerequisites: Environmental Science major or Permission by Instructor). (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 Introduction to Molecular Biology Methods**

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. College level reading and writing).

#### **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 understanding and the ability to apply and analyze ecological concepts.

#### **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, chromosomal anomalies, population and evolutionary genetics, biotechnology and nucleic acid analysis. (Prerequisites: BIOL 1220 and CHEM 1127 or PHYS 1117). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

### **BUSINESS ADMINISTRATIVE TECHNOLOGY**

#### **BTEC 1001 Success in the Digital and Online Learning Environment**

This course is an orientation to the online educational and digital technology environment, using course management software including technology and communication aspects. Students will be required to demonstrate a basic level of comprehension of digital technology and the online educational environment in using course materials, completing assignments, communicating with student and faculty, researching, accessing resources, and following submission standards. Standard college-level writing and online discussion formats will be discussed. After completing this course, students will have a working knowledge of course management programs, hardware and software environments, and communication standards. This course meets one of the requirement options that all online students must have 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 computer. 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 1015 Essential Computer Applications**

This course covers an introduction to Windows and the Microsoft Office Applications (Word, Excel, and Access), in the use of file management, desktop functions, and the basics of document, spreadsheet and database creation and editing. Upon completion of this course students will demonstrate a working knowledge in the use of the computer for information processing through simulated

training, assignments, and projects. Concurrent enrollment in BTEC 1020. Keyboarding is encouraged. (Prerequisites: College level reading and writing skills). (2 C).

### **BTEC 1020 Keyboarding**

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 or minimal keyboarding skills. The pace of the course is individualized to the students skills and abilities. College level reading and writing skills required. (Prerequisites: None). (1 C/1 Hour/Week).

### **BTEC 1030 Keyboarding Speed/Accuracy**

Students registering for this course need to type 35 GWPM for three minutes with three or less errors, because this course offers methods to eliminate errors and build speed systematically. This course helps students identify particular stroke combinations that are causing speed and/or accuracy problems and prescribe individual practice to overcome these problems. The pace of the course is individualized to the students skills and abilities. College level reading and writing skills required. (Prerequisites: None). (1 C/2 Hours/Week).

### **BTEC 1050 Keyboarding for Professionals**

Students need to type the equivalent of 45 GWPM for five minutes with zero errors when registering for this course, because this course covers the continuing development of keyboarding speed and accuracy. Students will develop proofreading and editing skills as they key documents from straight-copy and rough draft. (Prerequisites: College-level reading skills). (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 Microsoft Publisher. It will include discussion and practical hands-on experience with page design, layout, graphics, and typography. (Prerequisites: College level reading and writing skills; able to use the keyboarding and basic word processing skills). (2 C).

### **BTEC 1220 Human Relations in Organizations**

This course involves the study and development of essential communication skills needed in business to interact/work effectively with individuals and/or groups. The course emphasizes verbal/nonverbal communications, transactional analysis, listening, problem solving, decision-making, leadership styles, motivation/morale, stress management, business ethics, and group presentations. (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 appropriate developmental courses with grade of C or better.) (3 C/3 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 Document Production**

Students registering for this course need to be at 45 GWPM for three minutes with 3 or less errors. This course teaches utilization of Microsoft Word to create and edit documents utilized in the work environment, such as agendas, meeting minutes, memos, letters, envelopes, labels, and reports. Tasks will include file management, proofreading, storage and retrieval, merging documents with stored variables. Emphasis will be placed on critical thinking skills in the production of documents. (Prerequisites: College-level reading and writing skills). (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 is an introduction to medical terminology as it relates to body systems and diseases including building of medical words utilizing suffixes, prefixes, and combining forms. The focus will be on organization of the body, healthcare system terminology, common diseases, procedures, and tests associated with each specific body system. This course is designed to help students prepare for a variety of professional and paraprofessional careers in the medical field. (Prerequisites: None). (2 C).

#### **BTEC 1620 Medical Terminology for Health Professions**

This course covers the introduction to medical terms including prefixes, suffixes, and combining forms as well as attention to the levels of organization of the whole body, system-related diseases, and medical procedures. Emphasis is placed on spelling, pronunciation, and definition of medical words. The student will apply medical record analysis including surgical reports and abbreviations. This course is designed to help students prepare for a variety of professional and paraprofessional careers in the medical field. (Prerequisites: None). (3 C).

#### **BTEC 1650 Quality Assurance for Healthcare Documentation**

This course will focus on preparation of medical documents using the Association of Healthcare Documentation Integrity (AHDI) 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. (Prerequisites: BTEC 1620 and ENGL 1630 or concurrent enrollment). (2 C).

#### **BTEC 1670 Medical Transcription**

The course introduces medical formatting and transcription skills of medical documentation from a variety of medical specialties. Dictation is transcribed from various diverse backgrounds. Keyboarding speed and accuracy will continue to be developed. Emphasis will be in developing and improving editing and proofreading skills. (Prerequisites: BTEC 1620 and ENGL 1630 or concurrent registration). (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 medical and insurance information before, during, and after an appointment and how it correlates with the business aspect of patient care, which includes third party pay, data privacy, and the universally recognized healthcare communication model (SBAR). (None). (1 C).

#### **BTEC 1730 Patient Office 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. The students will demonstrate proper telephone and email protocol as an administrative clinic assistant performing duties such as scheduling provider appointments, additional tests, working with external and internal providers. (Prerequisites: BTEC 1620, BTEC 1720 and HIMC 2600). (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 2210 Shadowing Capstone Experience for the Administrative Clinic Assistant**

This course provides students an opportunity to shadow a professional in their roles as a patient appointment coordinator, clinic assistant and a patient service representative. A lecture presentation will be given to all students participating in this course, providing the expectations of the health organization hosting this capstone shadowing experience. Note: This course requires a clear Minnesota Criminal Background Study. (Prerequisites: None). (1 C).

#### **BTEC 2220 Business Communications**

This course provides the student with an introduction to theory-based principles of both oral and written communication utilized in business. Emphasis is placed upon grammatically correct, professionally formatted business documents, and e-appropriate tone and method of communication. (Prerequisites: ENGL 1630 or instructor approval). (3 C).

**BTEC 2235 Quality Digital Transcription**

This course will focus on preparation of business documents using digital dictation, voice technology, and transcription software. Emphasis will be placed on editing, transcription, and grammar standards including spelling, punctuation, vocabulary, proofreading strategies, and use of reference materials. Students will apply these concepts in error-free manuscripts, memos, letters, reports, policies/procedures, agendas, meeting minutes, and legal documents generated in a variety of business settings, using accuracy, efficiency, and decision-making skills. Keyboarding skills of at least 45 GWPM. (Prerequisites: ENGL 1117 or ENGL 1630). (3 C).

**BTEC 2270 Office Procedures**

This course capstones the administrative duties that include students in a legal and general office environment, utilizing skills taught in previous curricula. Students will process a variety of error-free documents; utilize proper business telephone etiquette, presentation software, 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. Students entering this course must be at a typing speed of 55 GWPM with three or less errors. (Prerequisites: None; Co-requisites: BTEC 2350 or 2355, BTEC 1220, BTEC 2330 and ENGL 1630). (3 C).

**BTEC 2291 Specially Designed Independent Study: Word Processing II**

This course teaches utilization of a computer system with word processing software (Microsoft Word 2013) to perform more 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.

**BTEC 2330 Advanced Document Production**

This course teaches students to perform advanced document creation using industry-standard software to include but not limited to, grants, manuscripts, reports, newsletters, executive summaries, business plans, news releases, wills, depositions, manuals, research papers, and various personnel documents. Applications will include customizing error-free documents, adding visual appeal, enhancing text, and organizing text in documents. Keyboarding speed and accuracy is required. (Prerequisites: College level reading and writing skills; Co-requisites: BTEC 1320). (3 C).

**BTEC 2350 Microcomputer Business Applications**

This course is designed to provide "hands-on" training in the use of the computer for information processing. Students complete applications using industry-standard software programs, (word processing, spreadsheets, and database management). A brief introduction to the cloud technology and operating system is covered. Students will also complete an integrated project. RECOMMENDED SKILLS/KNOWLEDGE: Students who do not have any prior experience in the use of Microsoft Office Suite should enroll in BTEC 1015. (Prerequisites: College level reading and writing skills). (3 C).

**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 industry-standard software programs (word processing, spreadsheets, and database management, presentation application and email/calendar). A brief introduction to the cloud technology and operating system is covered. RECOMMENDED SKILLS/KNOWLEDGE: Students with no prior experience in the use of Microsoft Suite 2013 need to enroll in BTEC1015. (Prerequisites: College level reading and writing skills). (4 C).

**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 and writing skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better). (2 C/2 hrs per wk).

**BTEC 2365 Advanced Microcomputer Business Applications**

This course expands on the fundamentals of applications using industry-standard software programs (word processing, spreadsheets, and database management). The course is designed to provide hands-on training in the utilization of microcomputer applications for business and industry. Students will be working independently in a self-directed environment. (Prerequisites: BTEC 2350 or BTEC 2355). (3 C).

**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 and writing 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 and advanced skills in creating computerized presentations. Students will learn to create and modify their presentations. They will use features such as slide master, outline view, animated objects, transition sound effects, embedding video, hyperlink, recording and inserting audio, tables, and charts. (Prerequisites: None). (1 C).

**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 communication software application. Students will learn email etiquette when using Microsoft Outlook to format message content by using character and paragraph formatting, using graphic elements such as charts and tables, and creating contact records, tasks, and appointments from incoming messages. (Prerequisites: None). (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. Students will define and describe the nature, and characteristics, ways services need to be presented using basic customer service terminology. Students will learn skills to create positive customer relations. (Prerequisites: College level reading and writing skills). (3 C).

**BTEC 2615 Applied Customer Service Skills and Concepts**

This course application of customer service strategies in the service environment to maintain and enhance business by focusing on the customer. The student will recognize strategies to capitalize on customer service in the work organization. Attention will be given to the identification and utilization of various forms of customer service: face-to-face, telephone, and current virtual formats such as Skype, Google and Adobe Connect. Students will recognize the importance of critical thinking at all times to achieve greater customer satisfaction. (Prerequisites: College level reading and writing skills; Co-requisite: BTEC 2614). (2 C/2 hrs per wk).

**BTEC 2616 Professionalism in the Workplace**

This course covers the basics of proper business etiquette and professionalism in the workplace and prepares students for the expectations of managers, peers, and business/industry. Students will define and demonstrate professionalism as they transition from being a student to a graduate preparing for employment. Students will develop a personal philosophy which will provide direction in establishing their career goals. Students will understand the correlation between professionalism and taking initiative, responsibility, team commitment and follow through. The impact of online branding, and maintaining their professional image in the workplace will be addressed, as well as, keeping their knowledge and skills current in their profession. (Prerequisites: College level reading and writing skills). (2 C).

**BTEC 2617 Support Role in Meeting/Event Planning**

This course identifies the role as an individual responsible for business gatherings/meetings. The student will develop a strong understanding of diversified meeting types, the alternative delivery options and technology needed for meetings. Students will participate in the planning process of a conference and complete a business or clinic project. Tips and time saving tools will be identified. (Prerequisites: College level reading and writing skills). (2 C).

**BTEC 2622 Current Workplace Technology**

This is a PC-based course that will prepare students to work in the 21st Century environment where mobility, flexibility, and collaboration are integral. Internet and network terminology and ethics will be topics of discussion. The students will create web pages, documents, and graphics for business use. The student will be utilizing various current technologies to increase their productivity, efficiency, and employability. (Prerequisites: None). (3 C).

**BTEC 2640 Healthcare Documentation Fundamentals**

This course covers an integration of medical terminology and medical reports, correspondence, and office document formatting. Emphasis will be placed on formatting, proofreading skill development, and accuracy. Medical documents will incorporate medications, medical specialties, and medical office concepts. Keyboarding speed and accuracy will continue to be developed. (Prerequisites: BTEC 1620 and ENGL 1630 or concurrent enrollment). (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, office expense reports, medical insurance, coordinating meeting and travel arrangements, scheduling patient appointments, and telephone skills. (Prerequisites: Students should be in their last semester of coursework). (3 C).

**BTEC 2660 Job Shadowing Experience, Medical Administrative Assistant**

Students will have an understanding of job responsibilities of their career choice and will gain professional experience under the direction of qualified medical office professionals during this job shadowing experience. Learning will take place through theory and practical application, and students will be required to provide written goals and assessments. (Prerequisites: Students should be in their last semester of coursework). (1 C).

**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 2330, 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. It is strongly recommended students have successfully completed at least half of their major credits. The student will create resumes, cover/application letter, thank you letter, and reference list. Electronic job application completion and follow up techniques will be covered. Students will prepare for and participate in a mock interview. (Prerequisites: College level reading and writing skills). (1 C).

**BTEC 2880 Creating and Showcasing a Professional Portfolio**

This course will explain the use, importance, and construction of professional portfolios to meet individual student needs to highlight and track professional experience and accomplishments. The compilation and organization of information to include in a professional portfolio will be covered. (Prerequisites: College level reading and writing skills). (1 C).

**BUILDING UTILITIES MECHANIC****BU 1500 Power Plant Theory**

This course uses slides, lectures, discussions and worksheets. Students will study the theory and proper operations of Low and High pressure Boilers to include steam turbines and steam engine operations. Topics will include boiler types, designs, uses, steam systems, fittings and accessories. (Prerequisites: Enrollment in the BUM program or instructor permission). (4 C/4 hrs/wk).

**BU 1510 Welding Theory and Safety**

This course covers actual use of arc, gas, M.I.G, and T.I.G. welding along with proper safety and equipment care. **RECOMMENDED SKILLS/KNOWLEDGE:** Basic technical skills/knowledge: High School Diploma or GED. (Prerequisites: None). (1 C/1 lect, 0 lab).

**BU 1520 Welding and Equipment Repair**

This course allows students to weld various projects using Oxy-Acetylene (GTAW, GMAW, SMAW). Skills will include braze welding, metal cutting, using shears, plasma cutters, and flame cutters. (Prerequisites: Enrollment in the BUM program or instructor permission). (1 C/0 lect, 2 lab).

**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). (1 C/1 lect, 0 lab).

**BU 1540 Power Plant Operation**

This course will provide students the opportunity to operate a High Pressure Boiler, turbine generator, related appurtenances and connect to the electric grid. Students will become familiar with fittings, accessories, water treatment, computerized controls, fuels, and combustion and flue gas analysis. Power Plant operations such as OSHA safety and EPA regulations will be discussed. Student will also earn required boiler hours toward the Minnesota 2A operators license. (Prerequisites: Enrollment in the BUM program or instructor permission). (4 C/8 hrs/wk).

**BU 1550 Plumbing Lab**

This course provides actual plumbing situations that 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. **Recommended Entry Skills/Knowledge:** High School Diploma or GED. (Prerequisites: Concurrent with BU 1530). (2 C/0 lect, 4 lab).

**BU 1560 Basic Pneumatic/Hydraulics**

This course prepares students in the field of fluid power. It consists of hydraulic principles including system components, diagrams, drawings, trouble shooting, and system maintenance. The basic relationships of force, work, energy and the different types of compressors will also be addressed. (2 C).

**BU 1570 Basic Boiler Theory**

This course is a preparatory class for the MN Special Engineers License using videos, CDs lectures and class discussions. Materials covered will include, Minnesota Boiler Statues, Heat transfer theory, Boiler design, Boiler systems, fittings and accessories, fuels and combustion, Boiler maintenance, inspections and operating conditions will also be discussed. (Prerequisites: Enrollment in the BUM program or instructor permission). (1 C/4 hrs/4 wks).

**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: Admission into BUM Program, Completion of all BUM I courses with a grade of C or above; Math 1015 or placement test into Math 0098 and Math 1016). (1 C).

**BU 1621 Electrical Theory I**

This course covers wiring layout for general lighting circuit sand switches in residential applications. The basic theory of inductors, capacitors, resistors, SCRs, diodes, transistors, and AC electric motors is also presented. The student will also examine the basic design and installation of electric motor controls. (Prerequisites: Admission into BUM Program, Completion of all BUM I courses with a grade of C or above; MATH 1015 or placement test into MATH 0098 and MATH 1016). (3 C).

**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: Admission into BUM Program, Completion all of BUM I courses with a grade of C or above; MATH 1015 or placement test into MATH 0098 and MATH 1016). (3 C).

**BU 1641 Electrical Theory II**

This course will allow students to 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: Admission into BUM Program, Completion of all BUM I courses with a grade of C or above; MATH 1015 or placement test into MATH 0098 and MATH 1016). (3 C).

**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. Finally, the application and characteristics of single-phase and three-phase transformers are covered. (Prerequisites: Admission into BUM Program, Completion of all BUM I courses with a grade of C or above; MATH 1015 or placement test into MATH 0098 and MATH 1016). (4 C).

**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, over current protection, grounding, conductors, and electrical safety. (Prerequisites: Admission into BUM Program, Completion of all BUM I courses with a grade of C or above; MATH 1015 or placement test into MATH 0098 and MATH 1016). (2 C).

**BU 2500 Refrigeration Theory**

This course covers fundamentals of refrigeration, tools and materials, basic refrigeration systems, compression systems, refrigerant controls, refrigerants, small domestic applications, and principles of installing and servicing small hermetic systems. Recommended Entry Skills/Knowledge: Understanding of electrical components and circuits. (Prerequisites: None). (3 C/3 lect, 0 lab).

**BU 2506 Refrigeration Lab**

This course covers lab experiences working with safe lab practices, tools, tubing, refrigeration system components, refrigerants, refrigerant recovery, recycle, reclaiming, system evacuations, and proper testing equipment usage. Recommended Entry Skills/Knowledge: Knowledge of refrigeration systems. (3 C/0 lect, 6 lab). (Prerequisites: BU 2500).

**BU 2512 Commercial Refrigeration Theory**

This course covers fundamentals of Commercial and Special Refrigeration systems including normal and advanced component identification, diagnosing, and troubleshooting. These concepts will be applied in BU 2518. (Prerequisites: BU 2500 and 2506). (3 C/3 lect, 0 lab).

**BU 2518 Commercial Refrigeration Lab**

This course covers lab experience in commercial refrigeration. Students will operate and troubleshoot refrigeration equipment including compressors, flow controls, and heat exchangers. (Prerequisites: BU 2512). (2 C/0 lect, 4 lab).

**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: BU 2500). (5 C/15 Hours/Week).

**BU 2602 HVAC/Refrigeration Systems Theory**

This course covers HVAC principles. This includes gas and oil fired furnaces, hydronic heating systems, heat pump systems, air conditioning installation practices and air distribution systems. This course will also cover indoor air quality measurements concerns and issues including comfort and psychometrics. (Prerequisites: BU 1641). (4 C).

**BU 2612 HVAC/Refrigeration Systems Lab**

This course covers HVAC operational principles. This includes operating, testing and analyzing gas and oil fired furnaces, hydronic heating systems, heat pump systems, air conditioning including installation practices and operations air distribution systems. This course will also cover indoor air quality measurements concerns and issues including comfort and psychometrics. Recommended skills and knowledge in electrical with mechanical aptitude. Recommend completion of BUM II courses or electrical background. (Prerequisites: None). (2 C/0 lect, 4 lab).

**BU 2622 HVAC Control Systems Lab**

This course covers HVAC Control installation, wiring, and testing. This includes commercial heating and cooling systems and commercial air handling units. This course will also include, installation, testing and analyzing pneumatic control systems hybrid control systems and components. This course will include installation, wiring, commissioning and testing building automation systems and controllers, inputs and outputs. Recommended skills and knowledge in electrical with mechanical aptitude. (Prerequisites: None). (2 C/0 lect, 4 lab).

**BU 2632 HVAC Control Systems Theory**

This course covers HVAC Control principles. This includes commercial heating and cooling systems, air handling units. This course will also cover control principles, pneumatic control systems and components. This course will also cover Building automation systems and controllers, inputs and outputs, installation, wiring, and testing including hybrid control systems. Recommended skills and knowledge in electrical with mechanical aptitude. Recommended completion of BUM II courses or electrical background. (Prerequisites: None). (3 C/3 lect, 0 lab).

**BU 2642 Second Class A Boiler Review**

This course will provide students a review of boiler regulations, fittings, Minnesota Law pertaining to high and low pressure boilers and turbines including hot water systems in preparation for the Second Class A Minnesota boiler exam. Recommended Entry Skills/Knowledge: Possession of a Special Engineer boiler license and the approved application, and affidavit for high pressure boiler/turbine experience. (Prerequisites: None). (1 C).



**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 may be created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. 50 hours of on the job training are required. (Prerequisites: BU 2555). (1 C/3 Hours/Week).

**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. 225 hours of on the job training are required. (Prerequisites: BU 2602 and BU 2632). (5 C/7 Hours/Week).

**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 may be created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. 100 hours of on the job training are required. (Prerequisites: BU 2555). (2 C/Hours and schedule to be determined on an individual basis).

**BUSINESS****BUS 1101 Introduction to Business**

This is an introductory course in which we will cover the major functional areas of business, including management, marketing, finance, and their more specialized sub functions. In addition, we will cover the foundations of American business, including the nature of the free enterprise system, business social responsibilities, and the structure of American business. Attention will also be given to the international dimensions of modern business. College level reading is recommended for this course. (Prerequisites: None). (3 C).

**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. College level reading and MATH 0098 are recommended for this course. (Prerequisites: None). (3 C).

**BUS 1307 Legal Issues for Supervisors**

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. In addition, students will explore the business case for creating a safe and inclusive work environment including the implementation of programs that promote safety, diversity, and discourage harassment and discrimination. (Prerequisites: None). (3 C).

**BUS 2101 Personal Finance**

This course covers fundamental concepts of personal financial management, focusing on the major personal financial planning situations that individuals and families encounter. Money management topics include: budgets, banking, tax strategies, investments, credit, insurance, real estate, interest, pension investments, and retirement planning. College level reading is recommended for this course. (Prerequisites: None). (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 is an introductory course in which we will cover the major areas of international business, including the need for professional business practices, cultural behavior, social responsibility of international trade, and the importance of understanding varying economic, social, political, cultural, and legal frameworks. In addition, the course will address international trade and investment, the global monetary systems, and how/why the world's countries differ. BUS 1101 (Introduction to Business) is recommended for this course. (Prerequisites: None). (3 C/3 Hours/Week).

**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 development of a formal market plan. (Prerequisites: None). (3 C/3 Hours/Week).

**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, litigation and alternative dispute resolution, administrative law, constitutional law, criminal law, torts, contracts, employment/labor law, consumer protection, intellectual property and real estate law. College level reading and writing skills are recommended for this course. (Prerequisites: None). (3 C).

**BUS 2212 Business and Economic Statistics**

This course is an introduction and overview of business 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. College level reading and MATH 0099 is recommended for this course. (Prerequisites: None). (4 C/4 lect).

**BUS 2214 Retailing**

This course studies the management efforts needed to operate a retail establishment effectively. It addresses the manager's strategy of operation as well as the requirements of daily operation, and does so from the standpoint of the specific decisions a retail manager must make to achieve success. The retailing course addresses buying, marketing, merchandising, operations, inventory control, personnel and finance. College level reading is recommended for this course. (Prerequisites: None). (3 C).

**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. College level reading is recommended for this course. (Prerequisites: None). (3 C).

**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 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). (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: College level reading).

**BUS 2240 Project Management**

Project Management strikes a balance between the technical and human aspects of managing projects. This course enables students to discover the strategic role of projects in contemporary organizations, how projects are prioritized, which tools and techniques can be used to plan and schedule projects, what organizational and managerial styles will improve chances of project success, and how the project manager addresses interpersonal relationships to support project success. (Prerequisites: College level reading). (3 C).

**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/or business simulations. A different topic will be covered every semester. College level reading and writing is recommended. (Prerequisite: None). (1 C).

**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. Completion of one semester of Business, Accounting or Economics courses is recommended. (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).

#### **BUS 2507 Operations and Guest Service Management**

This course provides the learner with a working knowledge of the functions and role of General Managers (GM), Assistant General Managers (AGM), and other management positions in the hospitality industry. The major content area cover the responsibilities of management, as well as the strategies and techniques that contribute to successful operations. (Prerequisites: None). (3 C/3 Hours/Week).

#### **BUS 2508 Hospitality Sales Management and Digital Marketing**

This course provides the learner with a working knowledge of hospitality sales and digital marketing. Throughout the class, an overview is given to the student on the key roles, responsibility, and strategies for success for sales professionals within the industry. The course will educate the student with methodologies for data analysis and persuasive communication. The course will introduce the learner to the revenue budgeting process as well as forecasting based upon customer segmentation. Throughout the process learners will be presented with tools, methods, and strategies that allow sales professionals to influence potential customers throughout their digital journey. From the initial dream phase through the research and purchase decision of the customer, students will be exposed to the various digital touch points that consumers review prior to making the purchase. (Prerequisites: None). (3 C/3 Hours/Week).

#### **BUS 2509 Hospitality Revenue Generation Strategies**

This course provides the learner with a working knowledge of the functions and roles of revenue and e-commerce managers in the hospitality industry. The student will be introduced to revenue management as a systematic process designed to increase revenue by leveraging techniques and practices that influence a consumers decision to make a purchase. In addition to evaluating different pricing models and major digital channels, this course provides a foundation for more advanced revenue management courses in forecasting, group management, pricing strategy, and application of revenue management techniques to other hospitality-related industries. Learners will be provided with proven methods and strategies to enhance visibility and increase conversion to achieve business objectives. All of the techniques and practices discussed in this course are applicable to a variety of service management roles. (Prerequisites: None). (3 C/3 Hours/Week).

### **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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: RCTC CAD major or instructors permission). (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 learn 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 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. This course will be taught in a state-of-the-art facility featuring the latest release SolidWorks. (Prerequisites: CAD 1039, CAD 1200, CAD 1220, CAD 1221 or instructors permission; Co-Requisites: CAD 1123, CAD 1150, CAD 1222, CAD 1323). (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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 1200, CAD 1220, and CAD 1221 or instructors permission; Co-Requisites: CAD 1120, CAD 1150, CAD 1222, CAD 1323). (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**

The 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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 1200, CAD 1220, CAD 1221 or instructors permission). (2 C, 1 lect, 1 lab).

**CAD 1200 Product Data Management**

This 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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: None; Co-Requisites: CAD 1039, CAD 1220, CAD 1221).

**CAD 1220 Engineering Drafting**

This course is a basic class in engineering drafting which is designed to provide working knowledge of the industrys graphic language and detailed drawing using solid work. Geometric construction, projections drawing theory, the multiview system, auxiliary and section views, and projections will be covered. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: None; Co-Requisites: CAD 1039, CAD 1200, CAD 1221). (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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: None; Co-requisites: CAD 1039, 1200, 1220). (3 C/1 lect, 4 lab).

**CAD 1222 Dimensioning and Tolerancing**

This course provides an introduction to the fundamentals of geometric 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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, 1200, 1220, 1221 or instructor's permission; Co-requisites: CAD 1120, 1123, 1150, 1323). (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 course concurrent with CAD 1234 and runs the first few weeks of the semester. This course is designed to give greater depth into CAD file management by using and understanding the latest Windows operating system. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: None; Co-requisites: CAD 1039). (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, and dual dimensioning. Students will also learn how to implement drawing revisions and be introduced to the concept of flat pattern design. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 1200, CAD 1220, CAD 1221 or instructors permission; Co-requisites: CAD 1120, CAD 1123, CAD 1150, CAD 1122). (3 C/1 lect, 4 lab).

**CAD 2000 Introduction to CAM**

This course teaches CAM integrated within SolidWorks, all machining operations can be defined, calculated and verified without leaving the parametric SolidWorks assembly environment. (Prerequisites: CAD 1230, CAD 1039 or instructors permission). (3 C/1 lect, 2 lab).

**CAD 2323 Advanced Dimensioning**

This course is designed to meet different drafting standards such as ANSI, 150 MIL or our own school standards. Tolerancing methods and dual dimensioning will be covered as well as geometric tolerancing symbols and standards. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1120, CAD 1123, CAD 1150, CAD 1222, CAD 1323 or instructors permission). (3 C/1 lect, 4 lab).

**CAD 2324 Special Projects I**

In this course students will select an area of interest and specialize in advance 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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 1120, CAD 1123, CAD 1150, CAD 1222, CAD 1323 or instructors permission; Co-requisites: CAD 2323, CAD 2358, CAD 2460). (2 C/0 lect, 4 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. This course will be in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 2323, CAD 2358, CAD 2460 or instructors permission). (3 C/1 lect, 4 lab).

**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 1120, 1123, 1150, 1222, 1323 or instructors permission). (5 C/2 lect, 6 lab).

**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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 2323, CAD 2358, CAD 2460 or instructors permission). (2 C/1 lect, 2 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 specialization in advance 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 the approval of instructor. A contract will be written on required work. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 2323, CAD 2324, CAD 2358, CAD 2460 or instructors permission). (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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 2323, CAD 2358, CAD 2460 or instructors permission). (2 C/1 lect, 2 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 of interviews. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 2323, CAD 2358, CAD 2460 or instructors permission). (2 C/1 lect, 1 lab).

### **CAD 2458 Product Design**

Students will learn to 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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 2323, CAD 2358, CAD 2460 or instructors permission). (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. This course will be taught in a state-of-the-art facility featuring the latest release of SolidWorks. (Prerequisites: CAD 1039, CAD 1120, CAD 1123, CAD 1150, CAD 1222, CAD 1323, or instructors permission). (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).

## **Community Based Youth Program**

### **CBYP 8100 Basketball Camp**

What's Included: 1. Instruction in defense, shooting, passing, dribbling, rebounding, one-on-one, three-on-three, and team play 2. Video-taping of players 3. Individual coaching on all fundamentals 4. Instruction by experienced coaches and players 5. T-shirt, basketball 6. Build confidence, effort, sportsmanship 7. Have a blast playing an awesome sport

## **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 1031 Introduction to Forensic Chemistry**

Forensic science is the application of scientific knowledge in the criminal justice system. A forensic chemist uses the principles and



techniques of chemistry to analyze physical evidence within the crime lab. This introductory lecture/laboratory course for non-science majors teaches the elementary concepts of chemistry through the lens of forensic chemistry. (Prerequisites: None). (3 C/2 lect, 2 lab).

### **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 course is an introductory study of the fundamental laws and theories of chemistry. Content covered includes measurements and precision, unit systems and conversions, the classification of matter, atomic structure, electron configurations and periodicity, ionic and covalent bonding, nomenclature, writing balanced chemical equations, quantitative relationships in chemical systems, solution concentrations, and acid-base reactions. (Prerequisites: MATH 0098). (3 C/2 lec, 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. Chemistry knowledge is vital for general education students to make informed decisions on political, social, ethical, health, and environmental issues. (Prerequisites: CHEM 1101 or instructor permission). (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 is a survey of organic and biological chemistry. After a brief review of general chemistry concepts, organic chemistry topics related to biological systems will be discussed. The structure and reactivity of carbohydrates, lipids, proteins and nucleic acids will be described along with the cellular metabolism of these compounds. (Prerequisites: CHEM 1117 or CHEM 1128). (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 study of the chemistry of organic compounds with emphasis on structure, properties, and reactivity. Molecular structure along with isomerization and conformational analysis leads to a deep understanding of physical and chemical properties. The study of reactions will be focused on the mechanisms to explain concepts such as regio- and stereoselectivity. (Prerequisites: CHEM 1128, can be concurrent with instructor permission). (4 C/3 hours lecture per week, 3 hours lab per week).

### **CHEM 2128 Organic Chemistry II**

This course is a continued study of the chemistry of organic compounds with emphasis on structure, properties, and reactivity. Chemical structures will be determined via multiple spectroscopic methods. The study of reactions will be focused on the mechanisms

to explain concepts such as regio- and stereoselectivity. Development and understanding of multistep synthesis will be a focus of this course. (Prerequisites: CHEM 2127). (4 C/3 hours lecture per week, 1 hour lab per week).

#### **CHEM 2291 Specially Designed Independent Study**

The structure and reactivity of carbohydrates, lipids, proteins and nucleic acids will be reviewed with emphasis placed on key functional groups and isomerism. Cellular metabolism of these compounds will be covered. Also discussed will be digestion, acid-base balance, and fluid and electrolyte regulation. (2 C).

#### **CHEM 2292 General Chemistry Lab**

The lab course covers basic terminology and chemical principles related to unit conversions, the components of matter, stoichiometry of formulas and equations, chemical reactions, gases and kinetic molecular theory, thermochemistry, atomic theory, and chemical bonding. (Prerequisites: CHEM 1101 or equivalent, or high school chemistry with at least a grade of C. MATH 0099 or equivalent). (1 C/0 lect, 1 lab).

#### **CHEM 2297 Chemistry Research**

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. This course can be repeated up to four times. (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).

#### **CHEM 2800 Biochemistry**

This course introduces the fundamental principles in biochemistry. Topics cover the structure and function of biomolecules, kinetics of enzyme-catalyzed reactions, major metabolic pathways that synthesize and degrade biomolecules, and the storage and transmission of genetic information in organisms. (Prerequisites: CHEM 2100 or CHEM 2127). (3 C).

### **CHINESE**

#### **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 2/Critical Thinking, 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 2/Critical Thinking, Goal 8/Global Perspectives.

### **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 Workers 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 CHWs 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 Workers 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 Workers knowledge of the community and the ability to prioritize work. Emphasis is on the use and critical analysis of resources and on problem solving. During 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 1000 Introduction to Workplace Communication**

This introductory course is skill based and designed to provide basic communication strategies to build positive relationships in career settings. It focuses on developing skill sets in active listening, conflict management, nonverbal awareness, and non-defensiveness. The goal is to create confidence and competence in various communication contexts, such as customer service, work teams, and personal relationships. Attention is placed on interpersonal communication, team/small group communication and public speaking. (Prerequisites: ENGL 0950). (3 C).

#### **COMM 1106 Cinema as Communication**

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 cinema; increase their understanding of how films work as art and how films communicate meaning as cultural artifacts. Students will also learn analysis skills to become more active and critical viewers. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

#### **COMM 1110 Introduction to Mass Communication**

This course will cover the nature, function and social 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: None). (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.

#### **COMM 1114 Fundamentals of Public Speaking**

This course 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; adapting to academic and career settings; reducing communication apprehension; and effectively using visual aids. (Prerequisites: College level reading and writing skills; appropriate score on the RCTC placement test or completion of appropriate development courses with grades of C or better). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking. (3 C).

#### **COMM 1125 Oral Interpretation**

This course focuses on the 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: College level reading and writing skills; appropriate score on the RCTC placement test or completion of appropriate development courses with grades of C or better). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy. (3 C).

#### **COMM 1130 Interpersonal Communication**

This course develops students interpersonal communication skills necessary for living and working effectively with other individuals in a society with great population diversity. Topics may include communication theory, verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships. (Prerequisites: College level reading and writing skills; appropriate score on the RCTC placement test or completion of appropriate developmental courses with grades of C or better). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking, Goal 7/Human Diversity. (3 C).

#### **COMM 2100 Intercultural Communication**

This course develops the intercultural communication skills necessary for students living and working with individuals of different cultures. Students will gain intercultural self-awareness and improve communication competency. Students will examine social, economic, and political viewpoints from a cross-cultural perspective. 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 divides in personal and professional settings. (Prerequisites: College level reading and writing skills; appropriate score on the RCTC placement test or

completion of appropriate developmental courses with grades of C or better). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking, Goal 8/Global Perspectives. (3 C).

### **COMM 2130 Team/Small Group Communication**

The purpose of Team/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. The course will enhance students ability to engage in effective communication in diverse team and group 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 Career 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: COMM 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 Communication Activity**

Students may earn credit by involving themselves in an individual career communication, forensics, or service learning project. Career Communication/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. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: College level reading and writing skills. (Prerequisites: Permission of instructor). (1-3 C).

### **COMM 2299 Special Topics in Communication Studies**

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 communication field. Topics might include current events (such as a political campaigns class during an election year), professional communication (such as networking, cross-generational issues, mediated/online communication), health communication, 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. (Prerequisites: College level reading and writing). (1-3 C).

## **COMPUTER SCIENCE**

### **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 1140 Introduction to Database and SQL**

This course introduces the major concepts of database design and implementation. Students will learn how to design, build and use databases utilizing a conventional DBMS system such as Microsoft SQL Server, MySQL, Oracle, and etc. Topics also include entering and retrieving information, SQL commands, query creation, analyze query results and etc. Students will design their own databases and implement them on a conventional DBMS system. (Prerequisites: MATH 0099 or higher and college level reading). (3 C).

### **COMP 1150 Computer Science Concepts**

This course is an 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 RCTC placement score into MATH 1115; college level reading). (3 C).

### **COMP 1731 Programming for the Internet**

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 1090 or higher; college level reading). (3 C).

### **COMP 1741 JavaScript**

This course introduces client-side scripting. Students will explore HTML and CSS, dynamic client-side scripting using JavaScript, client-side error checking and validation, and asynchronous server interaction. Students will construct and evaluate various client-side interactions. (Prerequisites: MATH 1090 or higher; college level reading). (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 1090 or higher; college level reading). (3 C).

**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 2243 Programming and Problem Solving**

This course introduces the major concepts of problem solving, algorithm design and programming. Emphasis is on algorithm development, analysis, refinement, top-down and object-oriented program development concepts. Simple and composite data types, classes, and control structures are covered Java programming language will be used. Students may take COMP 1150 and COMP 2243 concurrently. (Prerequisites: COMP 1150; MATH 0099; college level reading). (4 C).

**COMP 2247 Algorithms and Data Structures**

This course covers the principles of complexity of algorithms and problem solving techniques with data structures. Topics include analysis of algorithm, linked lists, stacks, queues, binary search trees, sorting searching, and recursive algorithms. In-depth study of object-oriented programming concepts is covered. Additional topics may include lists, iterators, heaps and priority queues, balanced binary search trees, hashing and graph algorithms. (Prerequisites: COMP 1150, COMP 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 Financial Aid request.

**CORT 0002 Consortium Course**

Per Financial Aid request.

**CORT 0003 Consortuim Course**

Per Financial Aid request.

**CORT 0004 Consortium Course**

Per Financial Aid request.

**CORT 0006 Consortium Course**

Per Financial Aid request.

**CORT 0008 Consortium Course**

Per Financial Aid request.

**CORT 0012 Consortuim Course**

Per Financial Aid request.

**CORT 0015 Consortium Course**

Per Financial Aid 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 in 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: None). (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. Student 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. (Prerequisites: LAWE 1105 or CRJU 1305; LAWE 1112; ENGL 1117). (3 C/3 Hours/Week).

**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 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).

**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). (3 C).

**CRJU 2315 Community Corrections and Probation**

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). (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 Introduction to Working with Children, Youth, and Families

This introductory course examines the rewards and challenges of working with children, youth, and families. Students will investigate career pathways, professional roles and responsibilities, and dispositions of effective professionals. Child, youth, and family studies will be introduced from a neurological, sociological, psychological, and educational perspective with an emphasis on reflective, relationship-based, trauma-informed practice. Students will demonstrate social perception by engaging in attentive, attuned, responsive interactions with children and youth. (Prerequisites: Placement at college level reading and writing). (3 C/2 lect/2 lab).

#### CYFS 1210 Child Growth and Youth Development

This introductory course examines the major developmental milestones for children from conception through adolescence. There will be an emphasis on brain development, adult-child relationships, the importance of the early years, executive function, role of family in facilitating children's development, and how culture and social contexts affect development. Students will develop the knowledge, skills, and dispositions needed to recognize areas of development and developmental patterns, and explain developmental concepts to others. (Prerequisites: ENGL 0960 and READ 0900). (3 C/2 lect, 1 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 Health, Safety and Wellness

This course examines the components of a comprehensive health program in a school, Head Start, or child care setting. Topics include comprehensive health education, health services, a healthy and safe school environment, physical education, nutrition services, obesity prevention, health promotion and community involvement. School problems of injury prevention and safety, alcohol, tobacco and other drugs, nutrition and obesity, environmental health, abuse and neglect, and communicable and chronic diseases will be addressed. The legal responsibilities of teachers and caregivers related to child health and safety will also be explored. (Prerequisites: College level reading and writing skills). (3 C/2 lect, 2 lab).

#### CYFS 1232 Positive Guidance and Social Emotional Development

This course examines the importance of social and emotional development with an emphasis on positive relationships, creating a positive social-emotional climate, developmentally appropriate expectations for behavior, promoting socialization through guidance and supporting families in fostering children's social and emotional development. Students will develop the knowledge, skills, and dispositions to support children's social emotional development, create a positive social-emotional climate, and promote socialization through positive guidance strategies. (Prerequisites: College level reading and writing skills). (3 C/2 lect, 2 lab).

#### CYFS 1235 Intentional Teaching through Learning Environments

This course examines the role of play as key context for developing and learning, the design of high quality, engaging, intriguing environments and effective teaching strategies that make learning meaningful. Emphasis is on fostering children's attention, memory, curiosity, engagement, persistence, and self-regulation. Students will develop the knowledge, skills, and dispositions to design and implement learning environment and learning experiences. (Prerequisites: Placement at college level reading and English). (3 C/2 lect, 2 lab).

#### CYFS 1310 Infants, Toddlers, and Families

This course examines the development and learning in all domains of children birth to 36 months with a focus on brain development, attachment, facilitating learning, partnering with families, and culturally sensitive care. Students will develop the knowledge, skills, and

dispositions to support healthy infant toddler development and parent-child relationships through responsive individualized care. (Prerequisite: College level reading and writing skills). (3 C/2 lect, 2 lab).

### **CYFS 1312 Preschool Development and Learning**

This course examines positive learning experiences for preschoolers with an emphasis on applying developmental knowledge in the context of a group or classroom in order to plan and implement meaningful learning experiences for preschool-age children. Students will develop the knowledge, skills, and dispositions to plan and implement a variety of learning experiences that address all domains of prekindergarten curriculum. (Prerequisite: Placement at college level reading and writing). (3 C/2 lect, 2 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. CYFS 1210 or instructor permission). (4 C/3 lect, 1 lab).

### **CYFS 1320 Observing and Assessing**

This course examines the process of ongoing authentic assessment of children's development and learning with emphasis on natural observation methods, gathering developmental data, using assessment tools to analyze data, designing individual plans based on observations, and sharing results with families and colleagues. Students will develop the knowledge, skills, and dispositions to use informal and formal assessment and evaluation strategies to plan and individualize curriculum and teaching practices. (Prerequisites: ENGL 1117 and CYFS 1210). (3 C/2 lect, 2 lab).

### **CYFS 1342 Topics in Curriculum**

This course provides an introduction to curriculum and assessment for caregivers of children birth to five years. There is an emphasis on what research identifies as the characteristics of quality curriculum and assessments and focus on those currently approved by Parent Aware in Minnesota. The Early Childhood Indicators of Progress will be integrated throughout the activities. (Prerequisites: None). (2 C).

### **CYFS 1505 Family Relationships**

This course examines the structure, function, internal family dynamics, and interrelationship of family, school, community, and government. Emphasis is on building positive respectful relationships with all types of families, supporting family well-being, promoting ongoing parent education and family engagement. (Prerequisites: Successful completion of READ 0900 with a C or higher; OR test into ENGL 1117 and CYFS 1210 or Instructor permission). (3 C/3 lect, 0 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 2110 Diversity and Human Relations**

This course examines how human relations shape identity development, life experience, and academic success in a diverse society. Students will explore attitudes toward gender, class, race, culture, disability and sexual orientation and engage in self-examination and introspection on issues related to social identity, stereotypes and bias, power, oppression and privilege, in order to provide respectful, responsive, empowering environments that embrace human diversity. (Prerequisites: None). (3 C/2 Hrs lecture/2 Hrs lab/Week).

### **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 2250 Foundations of Language and Literacy**

This course focuses on theories and strategies related to literacy in PreK-3 classroom and home settings with an emphasis on instructional methods to promote early literacy skill development and teaching concepts of print, phonemic awareness, vocabulary, comprehension, and writing. Includes a review of developmental assessment and evaluation practices. Intended for prospective early childhood or primary teachers, school paraprofessionals, and other educators working with emergent readers. Students will develop the knowledge, skills, and dispositions to support language and literacy development and optimal development and learning of dual language learners. (Prerequisites: ENGL 1117). (3 C/2 lect, 1 lab).

### **CYFS 2291 Preschool Principles and Practice**

This course provides an overview of preschool development and care giving practices in home or center-based settings. Students will integrate knowledge of developmental needs, developmentally appropriate environments, effective care giving and teaching strategies, and observation methods. Requires 32 additional hours arranged with preschoolers in an approved setting and a criminal background check. (Prerequisites: successful completion of READ 0840 and ENGL 0910 and 0980 with a C or higher; OR test into ENGL 1117 and CYFS 1210 or instructor permission). (4 C/3 lect, 1 lab).

### **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 examines professionalism, leadership, systems, systems change, public policy, advocacy, and ethics. Students in this course will demonstrate the knowledge, skills, and dispositions to represent the profession and engage with others to improve the quality of programs serving children, youth, and families. (Prerequisites: ENGL 1117). (3 C/3 lect, 0 lab).

### **CYFS 2630 Teaching Young Children with Special Needs**

This course examines disabilities, disorders, and developmental delays of children and the impact on families. Emphasis is on identification, person-first language, highly individualized teaching and learning, and supporting children's understanding of disabilities and people with special needs. Students will develop the knowledge, skills, and dispositions to support children and families with special needs and promote children's identity, belonging, and self-esteem. (Prerequisites: CYFS 1210 and CYFS 1235). (3 C/2 lect, 2 lab).

### **CYFS 2640 Curriculum Planning**

This course examines the elements of high quality, research-based curriculum with an emphasis on designing meaningful integrated curriculum based on observation, children's interests, and standards. Students will develop the knowledge, skills, and dispositions to apply select curriculum topics, develop an extended study, complete weekly lesson plans, individualize and adapt plans, incorporate family engagement, and document learning based on their existing knowledge of child development, curriculum content, and intentional teaching. (Prerequisites: CYFS 1235 and ENGL 1117). (2 C/1 lect, 2 lab).

### **CYFS 2810 Practicum I**

In this course students demonstrate caregiving and teaching competencies under guided supervision to make connections between theory and practice and develop professional behaviors. Students apply comprehensive understanding of children and families; developmentally appropriate, child-centered, play-oriented approaches to teaching and learning, and knowledge of curriculum content areas. They design, implement, and evaluate experiences that promote positive development and learning for all young children. (Prerequisites: CYFS 1232 and CYFS 1235). (3 C/9 Hours/Week).

### **CYFS 2840 Practicum II**

This course provides an opportunity to apply knowledge and skills in early childhood settings. Students demonstrate effective adult-child interactions: plan, implement, and document learning investigations that utilize a variety of learning formats, promote concept development, language modeling, and high quality feedback to children. (Prerequisites: CYFS 2810). (3 C/9 Hours/Week).

## **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 programs 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

**DA 2292 Dental Infection Control/Hazards Mgmt Review**

The Dental Infection Control and Hazards Management Review course will prepare the dental assisting student to function aseptically and safely in the dental clinical environment. This course will review the principles of microbiology and disease transmission, current concepts of infection control, and hazard communication and management in dental practice. The review will address the 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 for any dental assisting clinical courses. (Prerequisites: DA program admission). (1 C).

**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 check, 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).

**DENTAL SCIENCE****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 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: None). (3 C/3 Hours/Week). 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). College level reading and writing. (Prerequisites: MATH 1113 or 1115). (4 C/4 Hours/Week). 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. 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. College level reading and writing. (Prerequisites: MATH 1113 or MATH 1115). (4 C/4 Hours/Week). MNTC: Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.

### **EMERGENCY MEDICAL CARE**

#### **EMC 1121 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 READ 0900). (2 C).

#### **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).

### **EMERGENCY MEDICAL TECHNOLOGY**

#### **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. Current certification in Healthcare Provider CPR is also required). (8 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. (Prerequisites: 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 policies. 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 EMTs 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 0950 Introduction to College Writing I**

In this course students will practice the process of writing as a recursive process with strategies for planning, drafting, and revising their own work. Students will examine professional and peer writing samples as they learn to organize and develop their own writing ideas. The aim of this course is to prepare students for college-level writing. (Prerequisites: Appropriate score on RCTC placement test). (4 C).

#### **ENGL 0960 Introduction to College Writing II**

In this writing intensive course, students will advance their writing skills. Students will read and analyze professional writing in order to apply those techniques to their own writing. The aim of this course is to prepare students for the rigors of college-level writing. (Prerequisites: Appropriate score on RCTC placement test or ENGL 0950 with a grade of C or better). (4 C).

#### **ENGL 1109 Introduction to Professional and Technical Communication**

This course focuses on the types of writing found in business, professional 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. The ethical responsibilities of writer to their organizations, audiences, and society are recurring theme. Recommended skills include: college level reading and writing.

(Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking, Goal 9/Ethical and Civic Responsibility.

### **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**

This course is 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 womens 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. (Prerequisites: College level reading and writing skills). (3 C/3 lect, 0 lab).

### **ENGL 2230 Minnesota Literature**

This course examines the literary landscape of Minnesota. Through the reading, paying particular attention to Minnesota authors, students will examine the importance of setting and environment in Minnesota literature. Students will look at literature from various regions and work to define common characteristics determined by distinct settings and social-cultural backgrounds. (Prerequisites: College level reading and writing skills). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 10/People/Environment.

### **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 2255 Shakespeare: Screen, Stage, and Page**

In this course, students will read, watch, discuss, and analyze some of Shakespeares major works, such as comedies, histories, tragedies, romances, and poetry. The course will deal with the historical Elizabethan context in which these works were created and the impact that these works have had on later plays, films, poetry, and popular culture. This course will also emphasize the aesthetic value of Shakespeares work and how this value creates a continuing influence in literature, drama, and cinema. (Prequisites: College level reading and writing skills). (3 C). MNTC: Goal 2/ Critical Thinking, Goal 6/The Humanities-the Arts, Literature, and Philosophy, and Goal 8/Global Perspectives.

### **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 the literature and historical contexts in America from the post-Civil War era to contemporary times. Special attention is paid to the developing ideas of American identities and political realities as expressed through the literature. (Prerequisites: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 9/Ethical and Civic Responsibility.

#### **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 presented 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 2290 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 and ENGL 1118; or permission of instructor). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

#### **ENGL 2297 Children's Literature**

This course focuses on locating and evaluating early literacy, primary and intermediate childrens books. Standards for critical evaluation will evolve through extensive reading, discussion, research, and writing. Course content will focus on the history of childrens literature, childrens literature and multi-media and different types and genres within literature for children, including the following: picture books, traditional literature, modern fantasy, poetry, contemporary fiction, historical fiction, nonfiction and multicultural literature. The course provides the opportunity for field experiences. (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/Critical Thinking, Goal 6/The Humanities the Arts, Literature, and Philosophy, Goal 7/Human Diversity). (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 1101 Introduction to Engineering**

This course helps students gain an understanding of the profession of engineering, the pathway to an engineering career, and knowledge of the different fields of engineering. Hands-on projects and invited speakers will be included. Knowledge gained will be applied by students to guide their engineering education and to help in determining their career choice. (Prerequisites: None). (2 C/2 lect, 0 lab).

#### **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, Thevenin'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).



## ENGLISH EXPRESS

### ENGX 0900 English Express

Courses in English Express have been chosen to increase student success and to accelerate student progress. This class can be a combination of ENGL 0950 or ENGL 0960, ENGL 1117 and sometimes include FYEX 1000. These are accelerated learning courses that may require additional time to complete course work due to the accelerated nature of the courses. (8-9 C).

## EQUINE SCIENCE

### EQSC 1014 Horse Management

This course includes both the hands-on skills related to caring for horses as well as theory of managing horses and horse facilities. The gold standard for managing pastures, manure, parasites, and horse health will be examined. The hands-on portion of the course will relate to non-riding techniques such as bandaging, clipping, mane care, and first aid. (Prerequisites: None). (4 C).

### EQSC 1100 Introduction to Equine Science

This course provides students with the foundational knowledge and theory needed to complete other equine coursework. Students learn to fully describe horses in terms of colors, markings, breed type, and conformation. Students also learn about disciplines of riding, the basics of equine evolution/history, equine welfare, anatomy, hoof care, nutrition, reproduction, and current topics affecting the industry. (Prerequisites: None). (3 C/3 Hours/Week).

### 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 capstone course familiarizes the student to the principles of starting the young horse in a riding program, beginning with groundwork and progressing to the near finished show prospect. Learning to lead with respect, sacking out, being mounted, and basic skills/control for flatwork will be covered. Students care for the colts as a part of the course. (Prerequisites: EQSC 1014, EQSC 1113 and EQSC 1114). (5 C/10 Hours/Week).

### 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. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: High school diploma or GED, Grade of C or better in the following courses: EQSC 1100, EQSC 1101, and EQSC 1103. (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 selection and 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. Recommended Entry Skills/Knowledge: High school diploma or GED. Grade of C or better in the following courses: EQSC 1100 and EQSC 1101. Competitive riding experience or exposure to horse shows. (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: Must be able to ride and control a horse at a walk, jog, and lope in a balanced position and mount from the ground. Be able to lift 50 lbs). (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 1113 Western Horsemanship**

This riding course allows students to develop their horsemanship skills, refine their use of the aids, and focus on riding with collection. Students will learn correct western position while improving their control of the horse and ability to ride a variety of horses. The focus is on developing safe, confident riders who are secure in the saddle and able to problems solve horse training issues. Must be a Riding/Training major and be able to walk, trot, and canter in a safe manner. Riding test will be conducted during first week of classes. (Prerequisites: None). (5 C/6 Hours/Week).

**EQSC 1114 English Equitation**

This riding course develops the students ability to use their aids effectively, control the horse at the walk, trot, and canter, and helps future horse trainers to build a toolbox of skills in order to work through various horse training issues. This class might utilize ground poles or small jumps. Given the intensity of this course, it is important that students can already walk, trot and canter prior to the start of the course. This will be tested in the first week of the semester. Students also need to be able to lift 50 lbs and mount from the ground. Must be a Riding/Training major and be able to walk, trot, and canter in a safe manner. Riding test will be conducted during first week of classes. (Prerequisites: None). (5 C/6 Hours/Week).

**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. Given the intensity of this course, it is required that students be able to proficiently ride a horse at a walk, trot and canter prior to the start of the course. Students also need to be able to lift 50 lbs. and mount from the ground. This will be tested in the first week of the semester. (Prerequisites: Must be able to ride and control a horse at a walk, trot, and canter in a balanced position and mount from the ground. Be able to lift 50 lbs). (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. Recommended Entry Skills/Knowledge: High school diploma or GED. Grade of C or better in EQSC 1115; or commensurate level of riding. (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 1118 Teaching Techniques and Event Planning**

This course introduces the student to the teaching of riding as well as equine event management. Students learn about teaching theories, school horse selection, lesson planning, and management of equine events such as clinics, camps, and shows. Students will be teaching actual riding lessons as a part of this course. (Prerequisites: EQSC 1113 and 1114). (3 C/3 Hours/Week).

**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. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: High school diploma or GED, Grade of C or better in the following courses: EQSC 1100, EQSC1101, and EQSC 1108. (Prerequisites: EQSC 1100, 1101). (3 C).

**EQSC 1121 Equine Business Management and Careers**

This course prepares students for their future careers in the horse industry. Students learn about career options, resume writing,

networking in the industry as well as tools for being successful while working with horses. Students will write an equine-specific business plan as a part of the course. In addition, there will be required job shadows with professionals who work in the industry. (Prerequisite: None). (3 C/3 Hours/Week).

#### **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 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, track, 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. Proficiency riding at the walk/trot or walk/jog is required in addition to the ability to lift 50 lbs. and mount from the ground. (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 Reproduction**

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 1199 Equine Science Careers and Academic Skills**

This course is geared to prepare students for program success and professional work experience. Topics include skills related to job seeking, resume preparation and interviewing for work in the equine field. In addition, this course covers study skills, communication skills, time management, and personal responsibility specific to the equine program. Students are exposed to subjects which equine professionals must confront within the horse industry. (Prerequisites: None). (3 C/3 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. (Prerequisites: Extensive riding experience, Grade of C or better in the following courses: EQSC 1100, EQSC 1101, Grade of B or better in either EQSC 1111 or EQSC 1116). (4 C/1 lect, 3 lab).

#### **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 Science 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: EQSC 1100). (3 C/4 weeks or 160 hours).

## 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. (Prerequisites: None). (3 C/2 lect, 2 Hours lecture/2 Hours lab/Week). MNTC: 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 tectonics 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 1115 Historical Geology**

This course covers the history and evolution of the Earth and the life on Earth. Major scientific theories covered include the Theory of Plate Tectonics and the Theory of Evolution by means of Natural Selection. Students will learn how the moving plates have changed the geography of the Earth throughout geologic time. They will also learn how life has evolved and changed over time from the earliest beginnings through dinosaurs and mammals up to modern times and the origin of our human species. Other topics include Geologic time, relative and absolute dating and rocks and minerals with emphasis on sedimentary rocks. Lab experiences will feature hands on experiences and will apply the scientific method to questions of Earth's history. (Prerequisites: None). (4 C/3 lect, 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, Goal 10/People and the Environment.

### **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 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 cultural differences is emphasized. Designed for the student with no previous foreign language study. (Prerequisites: None). (4 C). MNTC: Goal 2/Critical Thinking; Goal 6/Humanities - the Arts, Literature, and Philosophy; Goal 8/Global Perspectives.

### **FREN 1102 Beginning French II**

This course is a continuation of FREN 1101. This course focuses on Learning 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 cultural differences is emphasized. (Prerequisites: FREN 1101 or instructor permission). (4 C). MNTC: Goal 2/Critical Thinking; Goal 6/Humanities-Arts, Literature, Philosophy; 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**

This is an intermediate French language course designed to strengthen language skills and develop cultural competency. FREN 2101 is a communicative approach to reading, writing, listening, and speaking French. Short literary forms (poetry, drama, music, film) and other authentic texts form the basis for language interpretation, development, and practice. (Prerequisites: FREN 1102 or instructor permission). (3 C). MNTC: Goal 2/Critical Thinking; Goal 6/The Humanities-the Arts, Literature, and Philosophy; Goal 8/Global Perspectives.

### **FREN 2102 Intermediate French II**

FREN 2102 is the continuation of Intermediate French I. This language course is designed to strengthen language skills and develop cultural competency. French 2102 is a communicative approach to reading, writing, listening, and speaking French. Short literary forms (poetry, drama, music, film) and other authentic texts form the basis for language interpretation, development, and practice. Course conducted in French. (Prerequisites: FREN 2101 or instructor permission). (3 C). MNTC: Goal 2/Critical Thinking; Goal 6/The Humanities-the Arts; Literature, and Philosophy, Goal 8/Global Perspectives.

### **FREN 2291 French III**

Specially designed independent study project work.

## **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 Management 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**

This course is 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. Recommended Entry Skills/Knowledge: College level reading skills. (Prerequisites: None). (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**

This course is 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: None). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives, Goal 10/People and the Environment.

## GERMAN

### **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 2/Critical Thinking, 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 2/Critical Thinking, 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).

## 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 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: 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 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 1620, HIMC 2600. 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 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: College-level reading and writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with a grade of C or better). (3 C/1 lect, 2 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: 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/1 lect, 2 lab).

### **HIMC 1910 Reimbursement**

This course provides a study of numerous health insurance plans, reimbursement methodologies, and compliance strategies. Students will adhere to current regulations and established guidelines in code assignment. (Prerequisites: 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 lect, 0 lab).

### **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. (Prerequisites: BIOL 1107, BTEC 1620, HIMC 2600. College-level reading skills, appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (4 C/2 lect, 2 lab).

### **HIMC 2015 ICD-10-CM/PCS Coding**

This course will introduce the student to the ICD-10-CM classification system and ICD-10-PCS inpatient procedural coding system. Emphasis will be placed 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. (Prerequisites: BTEC 1001, on-line tutorial, or the instructors permission is required when the course is offered online. BIOL 1107, BTEC 1620, HIMC 2600. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (4 C/2 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: BIOL 1107, BTEC 1620, and HIMC 2600. 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 2030 Advanced Coding**

Students will continue using the principles of ICD-10-CM, ICD-10-PCS, and CPT coding to ensure proficiency in coding 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 1620, HIMC 2600, HIMC 1840, HIMC 2010, and HIMC 2020. College-level reading Skills, Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (3 C).

### **HIMC 2110 Cancer Registry Organization and Management**

This course provides an introduction to cancer registry organization and management. Emphasis is placed on the basic knowledge of the types and purpose of cancer registries, quality control activities, accreditation, standard-setting organizations, as well as the legal and ethical issues surrounding a cancer registry. (Prerequisites: None). (3 C).

### **HIMC 2115 Cancer Registry Operations**

This course provides an in-depth picture of the systematic processes used in the daily operations of a cancer registry. These processes include identification of cases, coding, maintaining quality, as well as lifetime follow-up and the role these elements plays in providing data for analysis. The focus will be on case eligibility requirements for state and national standards as well as the voluntary

standards for accredited cancer programs of the American College of Surgeons Commission on Cancer (CoC). The importance of cancer committees, cancer conferences and quality monitoring will be reviewed. (Prerequisites: None). (3 C).

### **HIMC 2120 Cancer Disease, Coding and Staging**

This course defines cancer and how it develops and spreads. Students will learn about the many types of cancer and how to classify these tumors utilizing globally recognized codes. Instruction on the different references which are used to assign codes for topography, morphology and extent of disease will be explored. Two major staging systems will be examined, The American Joint Committee on Cancer (AJCC) TNM Stage and Collaborative Stage. An overview of historical staging systems will be included as a reference for students. (Prerequisites: HIMC 2110, HIMC 2115). (4 C/4 hours).

### **HIMC 2125 Oncology Treatment and Coding**

This course covers oncology treatment and coding including an overview of nomenclature and classification systems. Importance is placed on major sites of cancer, diagnostic and staging procedures, treatment modalities, clinical trial and research protocols. American Joint Committee on Cancer (AJCC) staging, SEER summary staging, and extent of disease concepts used by physicians and cancer surveillance organizations to determine treatment and survival will be emphasized. (Prerequisites: HIMC 2110, HIMC 2115). (4 C/2 credit lecture/2 credit lab).

### **HIMC 2130 Abstracting Methods**

This course is designed to introduce and apply the principles of cancer registry abstracting. Identification and selection of appropriate clinical information from medical records in a manner consistent with cancer registration regulatory core data requirements will be emphasized. Upon completion, student should be able to record, code, and stage site-specific cancer information as well as perform quality control edits to abstracted information to assure timeliness, completeness and accuracy of data. (Prerequisites: HIMC 2110, HIMC 2115, HIMC 2120, HIMC 2125). (4 C/1 credit lect/3 credit lab).

### **HIMC 2135 Follow-up, Data Quality and Utilization**

This course introduces cancer patient follow-up methodology and processes used to obtain follow-up cancer information regarding disease status, recurrence information, subsequent treatment and development of subsequent primary cancers. The use of follow-up information within the cancer registry and healthcare organization is also reviewed. An introduction to cancer statistics with an emphasis placed on descriptive and analytic epidemiology, cancer surveillance, annual report preparation, and usefulness of statistical cancer data in a healthcare organization will be reviewed. Upon completion, students should be able to demonstrate an understanding of physician and other follow-up resources and activities. (Prerequisites: HIMC 2110, HIMC 2115, HIMC 2120). (4 C/4 lect).

### **HIMC 2140 Professional Practice/Clinical Practicum**

This course provides supervised hands-on clinical experience in all aspects of cancer registry organization and operation. Experience will include but not be limited to all facets of coding and abstracting of cancer data, data collection, follow-up processes, and quality assurance activities. Students will have exposure to cancer committee functions as well as cancer conferences. Upon completion, students should be able to apply cancer information management theory to cancer registry practices and standards. Students have the status of learner and shall not be considered agency employees, nor do they replace employed staff. Clinical practice is conducted as a non-paid laboratory experience under the direct supervision of a cancer tumor registrar and will include experiences in all eight educational components. (Prerequisites: HIMC 2110, HIMC 2115, HIMC 2120, HIMC 2125, HIMC 2130, HIMC 2135). (4 C).

### **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: None). (3 C).

### **HIMC 2610 Pharmacology**

This course covers the various medications commonly used. Additional topics covered will be drug classifications, modes of administration, and characteristics of typical drugs. Correct spelling and proper interpretation of medications in dictated material will be emphasized. (Prerequisites: 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).

### **HIMC 2710 Healthcare Data Analysis**

This course is a study of collecting, analyzing, interpreting, and presenting numerical data relating to health care services. The electronic patient record requires the health information management professional to apply computer software using spreadsheet, database, and presentational software to convey healthcare information to stakeholders. (Prerequisites: BTEC 2350 and BTEC 2450 or BTEC 2355. 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/1 lect, 2 lab).

### **HIMC 2720 Quality Management of Health Information**

This course covers the components of quality performance improvement for problem-solving, decision making, time management, and implementation of quality concepts and applying quality tools. (Prerequisites: BTEC 2350 and BTEC 2450 or BTEC 2355; HIMC 1800, HIMC 1840, and HIMC 2710. 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 lect).

### **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 principles 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. (Prerequisites: HIMC 1840 and HIMC 1800. 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 lect, 0 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: 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: Student should be in the last semester of study in the Coding program and have completed HIMC 1820, HIMC 2010 and HIMC 2020. College-level reading skills: Appropriate score on RCTC placement test or completion of appropriate developmental course with grade of C or better). (1 C).

**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: Student should be in their last semester of coursework).

**HISTORY****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, Napoleonic 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 Oceania. 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.

### **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 explores weight management without diet and exercise as a lifestyle choice. It is designed for students to acquire the basic principles for understanding nutrition and fitness principles, by utilizing behavioral analysis and application of the results, to develop and implement individualized weight management plans. (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. Specific skills included, adult/child/infant CPR, two-rescuer care, and AED training. (Prerequisites: None). (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. Students will examine their attitudes, values, and assumptions concerning drug use. Discussions will include the social, legal, medical, psychological, and rehabilitative aspects of drug use. (Prerequisites: None). (3 C).

#### **HLTH 1135 Holistic Health: Introduction to Complementary Health**

This introductory course to holistic health allows students to explore complementary/alternative therapies such as acupuncture, chiropractic, herbal remedies, homeopathy, aromatherapy and biomagnetic therapy. Discussions will include the social, political and economic aspects of holistic health care, and the healing aspects of humor, exercise and nutrition. Updated research and the insurance industry's views on alternative therapies will also be discussed. (Prerequisites: None). (3 C).

#### **HLTH 2126 Women's Health Issues**

This course examines lifestyle choices dealing with many aspects of overall health prevention and promotion. This course will identify major health issues confronting women today, by exploring issues from the traditional medical model to the holistic model using an integrative approach to wellness. This course will include an overview of critical contemporary women's health topics such as exercise, nutrition, stress management, pregnancy, labor and childbirth, menopause, heart disease, self-esteem, domestic violence and other issues as they affect today's women. (Prerequisites: None). (3 C).

### **HONORS**

#### **HONR 2900 Honors Capstone**

This course is designed as the final honors experience for students enrolled in the Liberal Arts: Honors AA. Students will work collaboratively with one another and the instructor to synthesize previous honors coursework using an individually selected Phi Theta Kappa Honors Study Topic theme. Students will design a capstone project that meaningfully connects a significant portion of their previous honors coursework. The course will culminate with students presenting their projects to their peers. (Prerequisite: INFS 1915). (1 C/1 Hour/Week).

### **HORTICULTURE**

#### **HORT 1310 Soil Science**

This course is a study of soil characteristics and their relationship to land use, plant growth, environmental quality, and society. The course is an introduction to the study, management, and conservation of soils as natural bodies, as media for plant growth, and as components of the larger ecosystem. It introduces the relationships of soil to current concerns such as environmental quality and non-agricultural land use. This course should instill awareness of soil as a basic natural resource, the use or abuse of which has a considerable influence on human society and life in general. (Prerequisites: None). (3 C/2 hours lecture/week, 2 hours lab/week).

#### **HORT 1315 Plant Materials I - Woody Plants**

This course is an introduction to the principles and practices of plant classification, identification, and ecology and cultural requirements as applied to woody plants with special emphasis on trees, shrubs and woody vines grown in USDA Hardiness zone 4. A thorough knowledge of plant materials is vital for any plant science career. (Prerequisites: None). (3 C/2 hours lecture/week, 2 hours lab/week).

#### **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**

This course is an introduction to the principles and practices of plant classification, identification, and ecology and cultural requirements as applied to herbaceous annual, biennial and perennial plants. Native, indigenous and exotic species will be discussed. A thorough knowledge of plant materials is vital for any plant science career. (Prerequisites: None). (3 C/2 Hours lecture/week, 2 hours lab/week).

**HORT 1323 Introduction to Horticulture**

This course explores the fundamentals of plant systems as it relates to horticulture. Students are immersed in inquiry-based exercises filled with activities, projects, and problems to teach them plant concepts through laboratory and practical experiences. Current trends and career opportunities in horticulture will be explored. (Prerequisites: None). (3 C/2 lect, 2 lab).

**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 will present a study of plant propagation principles and techniques. The course will focus on basic biological concepts associated with plant structure, function, and reproduction. Students will apply these concepts to the propagation of plants. This course includes a hands-on laboratory component that upon satisfactory completion students will be proficient in sexual and asexual propagation of plants. (Prerequisites: READ 0900). (4 C/2 lect, 4 lab).

**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 2340 Sustainable Food Production**

Sustainable food production focuses on the science and practice of managing agricultural ecosystems as a whole in an ecologically and ethically responsible manner. This includes adhering to agricultural and food production practices that do not harm the environment, that provide fair treatment to workers, and that support and sustain local communities. Sustainable food production practices can lead to higher yields over time, with less need for expensive and environmentally damaging inputs. (Prerequisites: None). (3 C/2 lect, 2 lab).

**HORT 2350 Integrated 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 0980; 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 0980; 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 1575 Developmental Disabilities 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 individuals with developmental disabilities. Each student will receive experience in one of the following five areas: community based residential facility, sheltered workshop, community based work-site, educational setting or other day program facility. The time spent in a residential facility may necessitate working evening hours. (Prerequisites: NA 1500 and HS 1570). (3 C).

### **HS 1710 Foundations of Alcohol and Drug Counseling**

This course provides an introduction to alcohol and drug counseling by exploring the physical, psychological, and social aspects of alcohol/drug abuse/addiction. This course also covers all essential MN LADC core competencies. Finally, this course will discuss background studies, practicum placements and their requirements. (Prerequisites: ENGL 1117). (3 C).

### **HS 1720 Co-Occurring Disorders**

This course provides a basic understanding of the major mental health disorders across the life span and how these disorders impact self, community, and others. Additionally, this course will specifically discuss the co-occurring interaction of these mental health disorders with not only other mental health disorders but specifically with alcohol and drug use disorders. Other areas of importance in this class will include: Historical overview of disorder, current DSM diagnostic criteria, coding, associated features, differential diagnoses, prevalence, disease progression, assessment measures, treatment modalities, barriers to successful treatment, ethical issues, human development, and multicultural issues. (Prerequisites: ENGL 1117). (3 C).

### **HS 1730 Screening and Assessment of Disorders**

This course reviews common chemical dependency screening and assessment tools utilized in the identification of substance use disorders. A major emphasis in this class will be on the examination and practical application of the Rule 25 assessment and the American Society of Addiction Medicine (ASAM) client placement criteria. In addition students will learn about common mental health assessment and screening tools, and their co-occurring relationship with substance use disorders. Final topics of discussion in this class are: motivational interviewing, intake, orientation, service coordination (referral), case management, crisis intervention, client education, ethics, multicultural issues, diagnosis, and treatment planning. (Prerequisites: ENGL 1117). (3 C).

**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: ENGL 1117). (2 C).

**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 at a state and national level. In addition students will compare and contrast LADC guidelines, statutes, laws, and regulations with National Association for Alcoholism and Drug Abuse Counselors (NAADAC), American Psychological Association (APA), National Association of Social Workers (NASW), American Association of Marriage and Family Therapists (AAMFT), and American Counseling Association (ACA) standards. Finally, case management theory and strategies will be evaluated. (Prerequisites: ENGL 1117). (3 C).

**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: ENGL 1117). (3 C).

**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. This course provides students with the opportunity to practice these theories, interventions, strategies, techniques, and skills in class simulated role plays. (Prerequisites: ENGL 1117). (3 C).

**HS 1770 Alcohol and Drug Counseling Practicum I**

Students in practicum I will demonstrate their mastery of academic coursework in the 12 core functions of an alcohol and drug counselor by completing a minimum of 440 hours of clinical practice under the supervision of a Licensed Alcohol and Drug Counselor or other qualified professional. During regularly scheduled seminar meetings students will discuss ethical and professional considerations, boundary settings, interpersonal conflicts, and their engagement in therapeutic process. Furthermore, students will share with one another their practicum experiences, challenges, areas for improvement, strengths, areas of professional growth, and progress in the twelve core functions. (Prerequisites: Admission to RCTC Alcohol and Drug Counseling Program or Certificate. HS 1710, HS 1720, HS 1730, HS 1740, HS 1750, HS 1760, HS 1765). (3 C).

**HS 1780 Alcohol and Drug Counseling Practicum II**

Students in practicum II will demonstrate their mastery of academic coursework in the 12 core functions of an alcohol and drug counselor by completing a minimum of 440 hours of clinical practice under the supervision of a Licensed Alcohol and Drug Counselor or other qualified professional. During regularly scheduled seminar meetings students will discuss ethical and professional considerations, boundary settings, interpersonal conflicts, and their engagement in therapeutic process. Furthermore, students will share with one another their practicum experiences, challenges, areas for improvement, strengths, areas of professional growth, and progress in the twelve core functions. (Prerequisites: Admission to RCTC Alcohol and Drug Counseling Program or Certificate. HS 1710, HS 1720, HS 1730, HS 1740, HS 1750, HS 1760, HS 1765). (3 C).

**HS 1781 Crisis Intervention and Prevention**

This course provides students with an overview of crisis intervention theories as it relates to the behavioral health and education professions. Preventative techniques, strategies, and models will be explored. Risk assessment, community plans of action, supportive resources, and crisis specific situations will also be discussed. (Prerequisites: ENGL 1117). (3 C/3 Hours/Week).

**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 At-Risk Children, Youth, and their Families**

This class explores the issues of risk affecting children, youth, and their families. Topics include: resiliency, peer influence, poverty, mental illness, addiction, disabilities, academic success, and transition to adulthood. (Prerequisites: ENGL 1117). (3 C/3 Hours/Week).

**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. (Prerequisites: 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: None). (3 C/1 lect, 4 lab).

#### **HTFL 2341 Greenhouse Crop Production**

In this course students learn about the day-to-day operations involved in managing a greenhouse. Coursework includes the study of enclosed structures to manipulate the environment, applying cultural practices as they affect plant physiological processes, scheduling and controlling crop growth for target market periods, and greenhouse business management. Crops will be grown to demonstrate plant production and provide hands-on crop production experience. This course will help to prepare students for a career in management of commercial greenhouses, conservatories and institutional greenhouses. (Prerequisites: None). (4 C/2 lect, 4 lab).

#### **HTFL 2342 Interior Plants and Landscaping**

A thorough 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 management of high quality turf and landscape plantings requires specialized skills. An integration of turf and landscape maintenance theory and practice will be applied to residential and commercial landscapes, public green spaces, golf courses, athletic fields and other recreational landscapes. This course is designed to give students hands on experience with the safe operation and maintenance of turf and landscape power equipment. (Prerequisites: READ 0900, ENGL 0980, MATH 0099). (4 C/2 lect, 4 lab).

#### **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).

#### **HTLS 2345 Golf Course Field Operations**

This course covers the practical applications of golf course maintenance and construction techniques. Emphasis will be on turfgrass observation and diagnosis with recommendations for appropriate solutions. (Prerequisites: ENGL 0840 and 0990; MATH 0093; HORT 1318). (3 C/1 lect, 4 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. Identification of a variety of communication devices and their uses within the electronic environment. (Prerequisites: None). (3 C/3 Hours/Week).

#### **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. Students will learn to recognize, interpret, and transcribe all types of Doctors orders. A comprehensive list of abbreviations used in Doctors orders and diagnostic procedures will be memorized and used appropriately throughout the course. (Prerequisites: HUC 1510). (3 C/3 Hours/Week).

#### **HUC 1516 Station Procedures II**

This course will focus on various processes involved in the typical HUC role. Class time will also be used for internship planning and preparation. (Prerequisites: HUC 1515). (3 C/3 Hours/Week).

#### **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. Students will be learning about professional/ethical issues as well as focusing on personal/professional preparation for employment. (Prerequisites: None). (3 C/3 Hours/Week).

#### **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/2 Hours/Week).

#### **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).

### **HUC 1530 Electronic Clinical Applications for the Health Unit Coordinator**

This course will introduce the HUC students to various computer applications utilized in a healthcare setting commonly used to perform daily routine tasks. (Prerequisites: HUC 1529). (2 C/2 Hours/Week).

## **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 Enlightenment: 1400 A.D. to 1770 A.D.**

This course examines creative works and ideas of major artists and thinkers from the Renaissance through the Enlightenment, 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 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 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 1500 Compassion Studies**

This course explores compassion as a subject of academic inquiry, emphasizing both its timely and timeless aspects, notable historical traditions and thinkers, as well as contemporary figures and findings. Some of the key questions to consider are these: What is compassion? Do humans have a duty to be compassionate? What does compassion matter, to whom and to what? Readings, discussions, videos, and lectures will address compassion as it relates to diverse subject areas; assignments and activities will call students to learn, reflect upon, and share insight regarding course content. (Prerequisites: College level reading and writing skills are required). MNTC: Goal 2/Critical Thinking, Goal 6/The Humanities-the Arts, Literature, and Philosophy, Goal 9/Ethical and Civic Responsibility. (3 C).

### **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.

### **HUM 2121 Women's Issues Around the World**

This course focuses on controversial topics and social justice issues that affect women worldwide, such as female circumcision, human trafficking, domestic violence, honor killings, reproductive control, and access to education. The course explores such social, political, and cultural issues through the lenses of the humanities and the efforts of organizations and communities, locally and globally, to improve women's lives. (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.

### **HUM 2255 Shakespeare: Screen, Stage, and Page**

In this course, students will read, watch, discuss, and analyze some of Shakespeare's major works, such as comedies, histories, tragedies, romances, and poetry. The course will deal with the historical Elizabethan context in which these works were created and the impact that these works have had on later plays, films, poetry, and popular culture. This course will also emphasize the aesthetic value of Shakespeare's work and how this value creates a continuing influence in literature, drama, and cinema. (Prerequisites: College level reading and writing skills). (4 C). MNTC: Goal 2/ Critical Thinking, Goal 6/The Humanities-the Arts, Literature, and Philosophy, Goal 8/Global Perspectives.

### **HUM 2291 Specially Designed Independent Study**

Arranged study.

## **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).

**INFORMATION STUDIES****INFS 2915 Introduction to Information Literacy: Honors**

This course is an advanced introduction to the organization, retrieval, and critical evaluation of information from print, electronic, and other non-print sources. One of Phi Theta Kappa's Honors Study Topic themes will unite traditional information literacy topics across the course. Students will learn how information is organized, the concepts of the information research process, and how to formulate effective search strategies. Students will critically evaluate information and use it ethically. Additionally, students will learn to apply the skills and concepts learned from this course to any research assignments, laying a foundation for academic success and lifelong learning. (Prerequisites: None). (1 C). MNTC: Goal 1 Written and Oral Communication, Goal 2 Critical Thinking.

**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 Hours/Week).

**LAWE 1107 Ethics in Law Enforcement**

This course 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. Enrollment in Law Enforcement or Criminal Justice program required. (Prerequisites: None). (4 C/3 Hours/Week lecture, 2 Hours/Week 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 officers. 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: CRJU 1305 or LAWE 1105). (2 C/1 lect, 1 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 or Enrollment in the Private Security program; completion of LAWE 1115). (1 C/2 hrs/week).

**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: LAWE 1105 or CRJU 1305; ENGL 1117; LAWE 1112). (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 deal with during the course of their first years of employment. (Prerequisites: ENGL 1117, LAWE 1105, LAWE 1112). (3 C/3 lect, 0 lab).

**LAWE 2118 Minnesota Traffic Statutes**

This course is 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. (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. (3 C/3 Hours/Week). (Prerequisites: LAWE 1105 or CRJU 1305; ENGL 1117; LAWE 1112).

#### **LAWE 2120 Human Behavior for Law Enforcement**

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**

In this course the major focus deals with the types of reactions peace officers may encounter with people who are experiencing emotional or psychological difficulties. Police Ethics include definitions, perception, 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: LAWE 1105 or CRJU 1305; ENGL 1117). (3 C/3 Hours/Week).

#### **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: LAWE 1105 or CRJU 1305; ENGL 1117). (3 C/Hours/Week).

#### **LAWE 2125 Community Policing and Service**

This course will include police administration, various police duties and responsibilities, police statistics and research, and police work involving community service. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: College level reading and writing. (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 Statutes. (Prerequisites: LAWE 1105 or CRJU 1305; ENGL 1117). (3 C/3 Hours/Week).

#### **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. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: Completion of: LAWE 1105, LAWE 1112, LAWE 2117, LAWE 2118, LAWE 2110, and LAWE 2125. (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. (Prerequisites: LAWE 1105; LAWE 1112; EMC 1121 or equivalent training; LAWE 2110; LAWE 2119 (Can be taken as a Co-requisite), or instructor permission). (2 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. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: Completion of LAWE 1105, LAWE 1112 and acceptance into the Law Enforcement or Criminal Justice Programs (Prerequisites: LAWE 1105; LAWE 1112). (2 C/0 lect, 2 lab).

#### **LAWE 2291 Specially Designed Independent Study: Ethics in Law**

In this course the major focus deals with the types of reactions peace officers may encounter with people who are experiencing emotional or psychological difficulties. Police Ethics include definitions, perception, 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: College level reading and writing; LAWE 1105, LAWE 1112, and enrollment in the Law Enforcement program). (3 C/3 lect, 0 lab).

#### **LAWE 2292 Specially Designed Ind Study: Introduction to Criminal Investigation Lab**

This course will cover preliminary investigations, investigative techniques, and the investigation of specific offenses. Students will learn the specific elements of various crimes and the evidence that may be specific for each offense. They will also learn basic photographic techniques, sketching techniques, and interview basics. (Prerequisites: None). (1 C/1 lab).

### **LAW ENFORCEMENT SKILLS**

#### **LAWS 2101 Crime Scene Processing**

This course covers the 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, evidence collection and presentation. In order to enroll in this course a student must have a Law Enforcement Certificate or approval by another Minnesota Professional Peace Officer Education Program Coordinator and successful completion of psychological and physical exams. Completion Requirements: A minimum of a C grade will be required to pass this course. (Prerequisites: LAWE 2119, LAWE 2122, LAWE 2125, EMC 1121). (2 C/4 lab Hours/Week).

#### **LAWS 2102 Traffic Enforcement**

This course covers instruction and practical experience 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. Co-Requisites: Completion or concurrent enrollment in LAWE 2110, LAWE 2119, LAWE 2122, LAWE 2140, and EMC 1121). (2 C/0 lect, 2 lab).

#### **LAWS 2103 Defensive Tactics**

This course 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 deployment techniques and then be exposed to chemical agents. In order to enroll in this course, students must 1) Law Enforcement or Certificate student, or approval by another Minnesota Professional Peace Officer Education Program Coordinator 2) completion of a psychological exam 3) completion of a physical exam 4) ability to pass the RCTC physical agility test. (Prerequisite: Sophomore in Law Enforcement Program, LAWE 2119, LAWE 2122, LAWE 2125, and EMC 1121 completed or concurrently taking). (2 C/4 lab Hours/Week).

#### **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. In order to enroll in this course, students must 1) Law Enforcement or Certificate student, or approval by another Minnesota Professional Peace Officer Education Program Coordinator 2) completion of a psychological exam 3) completion of a physical exam 4) ability to pass the RCTC physical agility test. (Prerequisites: LAWE 2119, LAWE 2122, LAWE 2125, and EMC 1121). (2 C/4 lab Hours/Week).

#### **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 completing of a physical exam. Co-requisites: Completion or concurrent enrollment in LAWE 2110, LAWE 2119, LAWE 2122, LAWE 2140, and EMC 1121). (2 C/0 lect, 2 lab).

### **LEARNING COMMUNITY**

#### **LCOM 1001 Learning Community: READ 0800+**

Courses in the Learning Community have been chosen to increase student success in their first year of college. Students benefit from increased interaction with each other and their instructors. Student reading, writing, listening, and speaking skills are improved by the coordination of assignments and class activities among the instructors.

#### **LCOM 1002 Learning Community: FYEX 1000 and READ**

Courses in the Learning Community have been chosen to increase student success in their first year of college. Students benefit from increased interaction with each other and their instructors. Student reading, writing, listening, and speaking skills are improved by the coordination of assignments and class activities among the instructors.

**LCOM 1003 Learning Community: FYEX 1000, ENGL 0950 and READ 0800 + STSK 1670**

Courses in the Learning Community have been chosen to increase student success in their first year of college. Students benefit from increased interaction with each other and their instructors. Student reading, writing, listening, and speaking skills are improved by the coordination of assignments and class activities among the instructors.

**LCOM 1004 Learning Community: ENGL 0960, READ 0900 and STSK 1670**

Courses in the Learning Community have been chosen to increase student success in their first year of college. Students benefit from increased interaction with each other and their instructors. Student reading, writing, listening, and speaking skills are improved by the coordination of assignments and class activities among the instructors.

**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 hearers perception of the speaker.

**MATHEMATICS****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 0094 Elementary Algebra with Arithmetic Review**

This course is for the student whose placement score indicates that a review of integers, fractions, decimals and percent is needed before progressing to the fundamental of algebra, using the set of rational numbers. The algebraic fundamental include algebraic expressions, polynomials (including factoring), integers exponents, and equations and linear inequalities (one and two variables). The successful completion of this course prepares the student for intermediate algebra. (Prerequisites: Appropriate placement test score). (5 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 mathematics 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 0990 Statway Statistics I**

This is the first course of a two-semester series of courses for students. Concepts and methods of statistics with an emphasis on data analysis will be presented. Developmental mathematics concepts that serve as a foundation for statistical analysis are integrated into the course. Included in the series are: methods for collecting data: graphical and numerical descriptive statistics: correlation; linear regression; basic concepts of probability, confidence intervals and hypothesis tests for means and proportions, and chi-square tests. These courses are expected to be completed in consecutive semesters. (Prerequisites: MATH 0093 or equivalent (C or higher) or appropriate RCTC placement score into MATH 0098 or above). (4 C).

**MATH 1015 Applied Technical Math**

This course covers a review of basic arithmetic skills, fractions, decimals, and percent. It covers ratio/proportion, geometry, measurement (conversions), basic algebraic expressions, linear equations, and basic right triangle trigonometry. Emphasis is on problem solving with specific application packets designed to interface with the students core program. Cooperative learning activities and technology are used to support learning. (Prerequisites: None). (3 C/3 hrs/wk).

**MATH 1016 Technical Math Essentials**

This course covers ratio/proportion, applied geometry, and basic right triangle trigonometry to support technical programs. In addition to lectures, cooperative learning is used to support student learning. Students use scientific calculators throughout the program areas. Emphasis is on problem solving with program specific application packets designed to interface course. (Prerequisites: Appropriate placement test score, or successful completion (with a grade of C or better) of MATH 0093 or equivalent). (1 C).

**MATH 1026 Mathematics for Veterinary Technicians**

This course covers ratios and proportions, English and Metric measurement systems and dimensional analysis. Emphasis is on

problem solving with application packets designed to interface with the students core program. Cooperative learning activities are used to support learning. (Prerequisites: Appropriate Placement test score, or successful completion (with a grade of C or better) of MATH 0093 or equivalent). (1 C).

#### **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, MATH 0100, MATH 1113, or higher; and college level reading). (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, MATH 0100, MATH 1113 or higher; and college level reading). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

#### **MATH 1090 Statway Statistics II**

This course is the second course of a two-semester series of courses for students. Concepts and methods of statistics with an emphasis on data analysis will be presented. Developmental mathematics concepts that serve as a foundation for statistical analysis are integrated into the course. Included in the series are: methods for collecting data; graphical and numerical descriptive statistics; correlation; linear regression; basic concepts of probability; confidence intervals and hypothesis tests for means and proportions; and chi-square tests. (Prerequisites: MATH 0990). (4 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

#### **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 presented: Geometry, Logic, Finance Mathematics, Probability, and Statistics. College level reading is required. (Prerequisites: Successful completion of MATH 0098 or MATH 0094 with a grade of C or better or appropriate score on RCTC placement test). (3 C/3 Hours/Week). 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 and college level reading). (3 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

#### **MATH 1115 College Algebra**

This first college level algebra course. Topics include but are not limited to: Polynomials, Rational, 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 or MATH 0100 or equivalent with a grade of B or higher (for either course or appropriate score on RCTC placement test. College level reading). (3 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

#### **MATH 1117 Precalculus**

This course is for students requiring further experience with advanced algebra. Topics include trigonometric functions and their inverses, trigonometric identities and equations, applications of trigonometry, graphing polar equations, conic sections, mathematical induction, sequences, series, and a review of many algebra topics. (Prerequisites: Successful completion of MATH 1115 with a grade of B or better recommended or appropriate score on placement or ACT test. College level reading). (4 C). MNTC: Goal/2 Critical Thinking, Goal 4/Mathematics and 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 RCTC placement score and college level reading). (3 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

#### **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 Newtons 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 score from the current RCTC placement test; College level reading). (5 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

#### **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; College Level Reading). (5 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 or equivalent or higher-level math course with 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**

This course is 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 1128; College Level Reading). (5 C).

### **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 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: College level reading and writing). (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 TV Production I**

This course will enable the student to develop a foundation of video production skills and techniques such as storyboarding, image composition, and editing. The course will place emphasis on using video technology as an effective communication tool. Single camera production is highlighted. Students will study and work with video equipment, computer-based editing, audio for productions and lighting. (Prerequisites: None; recommended for college sophomores). (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 2130 Mass Communication Theory**

This course provides grounding in mass communication theory from the historical development of media theory, to issues and problems created by the media, through contemporary conceptualizations of media. This course seeks to develop students understanding of theories so that they can make better use of media and play an informed role in the development of new media industries as professionals. (Prerequisites: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences.

**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. (Prerequisites: None). (3 C).

**MCOM 2210 Public Relations**

This course is a concentrated study of audience and objective analysis, the steps in planning a public relations 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: College level reading and writing). (3 C).

**MCOM 2215 New Media Layout and Design**

This course will introduce critical concepts and build student competence in design related to new media. These new media include, but are not limited to, web pages, electronic news letters, the use of social media, multimedia CD-ROMs/DVDs. Students will explore the effective use of text, image, and sound in structuring publications and campaigns for mass consumption through all currently popular forms of computer mediated communication. (Prerequisites: College level reading and writing). (3 C).

**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 TV Production II**

This course is a continuation of MCOM 1190. The content of this course is at an advanced level for digital video production. 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. Students will learn advanced compression, mastering and distribution methods. Throughout the course there will be an emphasis on the use of the video technology as a communicative and creative tool. Recommended entry skills/knowledge: college level reading and writing. consent of instructor. (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, statutes, 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).

**MCOM 2295 Media Production Capstone**

This course will serve as a capstone to the learning and production experiences in the Mass Communication major. The goal of the course is for the student to prepare work that can be presented to prospective employers that showcases the students knowledge of mass communication and specific skills in radio, newspaper, television, and/or new media production. Specific content is dependent on the students career goals in media industries. (Prerequisites: College level reading and writing). (2 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 1003 Music, Video, Lights II**

This course is a continuation of MUSC 1002: Music, Video Lights. This hands-on course will provide additional exploration of creativity. The class will focus on public performances of new media creations. (Prerequisites: MUSC 1002). (3 C).

**MUSC 1005 Music Production**

This course will focus on the production of live music events and the incorporation of contemporary Disc Jockey and Video Jockey technology. Basics of live sound setup and operations will be combined with theory, practice, creation, and presentation of visual integration of lights and video projection in music production events. (Prerequisites: None). (3 C).



**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 listeners 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 1241 Movies and Composers**

This course uses movies to explore the great composers of Western music. Students will discover political, social, and historical factors that affected the lives of the composers. The course will also examine stylistic periods of music and basic music terminology. No previous music experience required. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/The Humanities-the Arts, Literature, and Philosophy.

**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 C, F, G, D, A, E; and harmonizing with tonic and dominant 7th chords. Composition of simple pieces and the history of keyboard literature will also be introduced. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/The Humanities - the Arts, Literature, and Philosophy.

**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 special interest to students who are interested in experience in creating music with the art of singing at any level as it will give them the opportunity for greater understanding and development of their voices. (Prerequisites: None). (3 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 laid out), exercises, scales, and melodic improvisation, music notation reading (music literacy), barre chords, guitar maintenance. No previous music knowledge necessary. (Prerequisites: None). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

**MUSC 1440 Applied Music - Instrumental: String**

Private instruction in instrumental music. The class is focused on developing the technical and performance abilities of students at any level and any interest. This class may 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 instrument. Recommended entry skills/knowledge: College level reading and writing skills. (Prerequisites: None). (1 C).

**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: Piano**

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 1470 Applied Music - Instrumental: Woodwind**

Private instruction in instrumental music. The class is focused on developing the technical and performance abilities of students at any level and any interest. This class may 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 instrument. Recommended entry skills/knowledge: College level reading and writing skills. (Prerequisites: None). (1 C).

**MUSC 1480 Applied Music - Instrumental: Brass**

Private instruction in instrumental music. The class is focused on developing the technical and performance abilities of students at any level and any interest. This class may 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 instrument. Recommended entry skills/knowledge: College level reading and writing skills. (Prerequisites: None). (1 C).

**MUSC 1490 Applied Music - Instrumental: Percussion**

Private instruction in instrumental music. The class is focused on developing the technical and performance abilities of students at any level and any interest. This class may 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 instrument. Recommended entry skills/knowledge: College level reading and writing skills. (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).

**MUSC 2601 Studio Problems**

This course allows students to create various productions beyond the second semester. Students will meet at arranged critiques with the instructor throughout the semester. Activities and projects include solo or work with students from other disciplines for public concerts. This course can be repeated twice. (Prerequisites: Any of the following: MUSC: 1002, MUSC 1005, MUSC 1601, MUSC 1621 or consent of instructor). (1 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 is a Surgical Technician, Practical Nursing, Associate Degree Nursing, Human Services Technician and Hospital Nursing Assistant course. (Prerequisites: Qualified for college level reading or concurrent enrollment in READ 0900). (4 C/2 lect, 2 lab/clinical).

#### **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 NA1500 theory and clinical or equivalent, 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, and PSYC 1611). (2 C/1 lect, 1 lab/clinical).

#### **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 developmental course (READ 0800) with a grade of C or better. CPR or concurrent enrollment in CPR). (5 C/2.5 lect, 2.5 lab/clinical).

#### **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).

### **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). (6 C/3 credits classroom and 3 credits lab/clinical per semester. 3 hours classroom and 7.5 hours lab/clinical per week (6 hour clinical and 1.5 hour lab).

#### **NURS 1118 Adult Nursing I**

This course focuses on the nursing care of adults with alterations in the following systems: cardiac, vascular, hematology, and respiratory. The course also discusses nursing care of adults with cancer, diabetes mellitus and the promotion of wellness. The students have the opportunity to apply classroom learning during learning during lab and clinical. (Prerequisites: Satisfactory completion of Semester I requirements in the ADN program sequence). (3 C/3 credits classroom and 3 credits lab/clinical per semester. 3 hours classroom and 7.5 hours lab/clinical per week (6 hour clinical and 1.5 hour 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 in the ADN program sequence). (3 C/1.6 credit classroom and 1.4 credit lab/clinical. 3 hours classroom and 7 hours lab/clinical per week. Course delivered in ½ 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 in the ADN program sequence). (3 C/1.6 credit classroom and 1.4 credit lab/clinical. 3 hours classroom and 7 hours lab/clinical per week. 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 in the ADN program course sequence). (3 C/1.6 credit classroom and 1.4 credit lab/clinical. 3 hours classroom and 7 hours lab/clinical per week. Course delivered in 1/2 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 gastrointestinal, biliary, hepatic, neurological, renal and reproductive systems. (Prerequisites: Satisfactory completion of Semester II requirements in the ADN program sequence). (6 C/3 credit classroom and 3 credit lab/clinical per semester. 3 hours classroom and 7.5 hours lab/clinical per week).

### **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: Satisfactory completion of Semester III requirements in the ADN program sequence). (3 C/1.6 credit classroom and 1.4 credit lab/clinical. 3 hours classroom and 7 hours lab/clinical per week. Course delivered in ½ semester).

### **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 in the ADN program sequence). (4 C/1 credit classroom and 3 credits lab/clinical. 2 hours classroom and 15 hours lab/clinical per week. Course delivered in ½ semester).

### **NURS 2400 Transcultural Nursing: Community and Global Connections**

This course 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 and individual/groups from diverse cultures. The nurses 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 AD Nursing Program. Nursing graduates or students from other nursing programs besides RCTC will be considered as space allows. Current CPR certification). (2 C).

## **OCCUPATIONAL SKILLS**

### **OSP 1000 Essential Skills for College and Career Success**

This course is an introduction to college and career success. Topics include using technology, navigating websites and the college system, identifying resources, organization and time management skills, study skills, goal setting, choices and consequences, relationships, social awareness, and personal responsibility. (Prerequisites: Acceptance in the Occupational Skills Program). (3 C/3 lect, 0 lab).

### **OSP 1005 Daily Living Skills**

This course covers skills that students need to live independently with the community. Topics include: Safety, hygiene, grooming, nutrition, meal planning and food choices, stress management, physical fitness and healthy choices. (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. (Prerequisites: 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 environment. Topics include verbal and nonverbal communication, speaking and listening skills, business communications and working in groups. (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 as they transition into the competitive employment and the community setting. (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).

**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 a variety of steps in the fox-trot, waltz, swing, two-step, mambo, rumba, cha-cha, polka and line dance. (Prerequisites: None). (1 C).

**PHED 1105 Lifetime Fitness**

This course provides current information encompassing areas such as cardiovascular efficiency, muscle strength and endurance, flexibility, and weight and stress management, all which contribute to the beneficial effects of living a healthier life. This course includes lecture material supported by laboratory assessments to assist individuals in evaluating their current level of health, wellness and physical fitness. By performing these assessments individuals are made aware of conditions and lifestyle choices that they may wish to modify for optimal health and fitness. (Prerequisites: None). (3 C).

**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. Other aspects covered are basic conditioning, fitness and the benefits of exercise. Group work to develop cooperation and teamwork. (Prerequisites: None). (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. The student will be introduced to the value of cycling in achieving physical fitness and will be encouraged to continue cycling as a lifetime skill. (Prerequisites: None). (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 to assure that bowling can become a lifelong leisure activity. (Prerequisites: None). (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 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: None). (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 and aerobic components of fitness. The course will utilize both fitness machines and free weights. These concepts contribute to muscular strength, endurance and cardiovascular efficiency, for a lifetime of fitness. The student will also be exposed to basic anatomy/physiology principles regarding warm-ups, cool downs, stretching and body structure. (Prerequisites: None). (1 C/2 Hrs Wk).

#### **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, mental, 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. These postures are performed in a variety of positions, including; seated, kneeling, standing, lying and partially inverted on the floor. Breathing exercises, meditation and relaxation will also be highly emphasized. Yoga postures enhance flexibility, balance, and strength, while focusing on mind/body awareness. (Prerequisites: None). (1 C/2 Hours/Week).

#### **PHED 1126 Step Aerobics**

This course implements the concept of cardiovascular conditioning through the use of steps, risers and fitness routines set to music. Each workout utilizes a 4' x 10' step bench for aerobic exercise routines for cardiovascular fitness, but also include the implementation of activities that improve muscle strengthening, flexibility, balance, reaction time and coordination. (Prerequisites: None). (1 C/2 Hrs Wk).

#### **PHED 1127 Body Toning**

This course is an exercise based participation class designed to increase muscle strength, endurance, tone and flexibility, using a variety of progressive resistance techniques. Other aspects discussed include the five health-related components of fitness including muscle strength, muscle endurance, flexibility, body composition, flexibility and cardiovascular efficiency. Basic nutrition concepts are explored as they relate to body composition, daily intake and proper nutrition for both healthy living and fitness performance. (Prerequisites: None). (1 C/2 Hrs Wk).

#### **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 and Orienteering**

This course is the use of map and compass for navigational purposes. This class is designed to incorporate the use of map and compass along with a variety of hiking experiences, as a leisure activity and an enjoyable means to physical fitness and a greater appreciation for the outdoors. (Prerequisites: None). (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: None). (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**

This course 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: None). (1 C).

**PHED 1146 Team Recreational Sports**

This course 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. (Prerequisites: None). (1 C).

**PHED 1150 Basic TRX Training**

This course is designed to teach students techniques for improving overall strength and core training with the TRX suspension trainer workout system. The TRX Suspension Trainer utilizes leverage, gravity and the students bodyweight to perform hundreds of exercises. Suspension training with bodyweight exercises develops muscle strength, and increases balance, flexibility and core stability simultaneously. This course also includes basic anatomy, as well as basic physiology principles as they relate to preparing the body for work, increasing load and the progression of increasing physical demands for continued improvement in the areas of strength, flexibility, muscle endurance, core stability and quality of life. (Prerequisites: None). (1 C).

**PHED 1151 High Intensity Interval Training (HIIT) with TRX Suspension Training**

This course is designed to teach students High Intensity Interval Training techniques including overall muscle strength, core training with increased power concepts by utilizing the TRX suspension trainer workout system. HIIT, also known as metabolic conditioning, requires the student to engage in directed, intense physical activity for short bursts, repeatedly, with limited recovery time. This format of training provides a tremendous aerobic, anaerobic, strengthening and power building workout. The TRX Suspension Trainer uses leverage, gravity and the individuals bodyweight to perform hundreds of intense exercises. Suspension training with bodyweight exercises develops strength, balance, flexibility and core stability simultaneously. The Versatility of HIIT TRX training offers a huge variety of exercises to choose from, and build on, for effective aerobic and anaerobic workouts. This course includes basic anatomy and physiological principles regarding how to increase aerobic and anaerobic load and the process for increasing physical demands for improvement in the areas of aerobic fitness, strength, flexibility, muscle endurance, core stability and quality of life. (Prerequisite: None). (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. Although designed for LAWE students, this course is open to any student. (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: None). (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. (Prerequisites: None). (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: None). (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: None). (1 C).

#### **PHED 1210 Freshman Volleyball 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 1212 Freshman Soccer 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 1213 Freshman Football 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 1220 Freshman Mens Basketball 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 1221 Freshman Womens Basketball 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 1222 Freshman Wrestling 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 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 1231 Freshman Softball 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 1236 Freshman Golf 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 2210 Sophomore Volleyball Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

#### **PHED 2212 Sophomore Soccer Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

#### **PHED 2213 Sophomore Football Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

#### **PHED 2220 Sophomore Mens Basketball Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

#### **PHED 2221 Sophomore Womens Basketball Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

#### **PHED 2222 Sophomore Wrestling Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

**PHED 2230 Sophomore Baseball Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

**PHED 2231 Sophomore Softball Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).

**PHED 2236 Sophomore Golf Team**

All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (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 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 sport and fitness facilities. Students will

learn exposed to leadership styles and management functions as these components are essential factors in the success of any facility or program. Facility and program marketing, budgeting, risk management and legal aspects are examined and applied through coursework. (Prerequisites: None). (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 Coaching, Officiating or Physical Education. Responsibilities and duties will be comprised within the administrative or direct contact areas of an approved position within the individuals desired area. (Prerequisites: Coaching Diploma, Physical Education 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 Sport Management. or Recreation. Responsibilities and duties to be determined through the direct supervisor of the internship and approved by the internship director. Internship will include problem solving and interpersonal relations with peers and consumers, while also developing the individuals professional relationships. (Prerequisites: Sport Management majors, or Recreation majors, successful completion of 90% or 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 principle 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. Particular attention will be given to the cultivation of critical reading and writing. (Prerequisites: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/The Humanities-the Arts, Literature, and Philosophy, Goal 9/Ethical and Civic Responsibility.

#### **PHIL 1125 Ethics**

An examination of the 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, moral character and social justice. The course will apply moral theories, concepts and principles to real world ethical issues and cases. (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 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, paternalism, 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: 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 1140 Aesthetics**

An examination of the problems that arise when human beings attempt to think systematically about art, beauty and taste. The course will include a survey of historical and contemporary views about the nature of art and beauty, theories of interpretation and evaluation, and the limits of aesthetic values. The course will apply the analytical theories and concepts to the real world. (Prerequisites: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

**PHIL 1145 Logic**

This course is an introduction to the formal study of reasoning using the concepts and techniques of symbolic logic. It will expand the method of natural deduction with an 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. While this course challenges students with abstract reasoning, the study of symbolic logic will demystify the underlying structure of language, highlight abuses of reason, teach the value of critical reading, and suggest strategies for formulating coherent, well-reasoned writing. (Prerequisites: None). (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 Gods 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.

**PHIL 2001 Science Fiction and Philosophy**

This course will explore philosophical themes in the context of science fiction (and fantasy) literature and film. Major topics include the relationship between mind and body, the nature of scientific inquiry, and issues concerning social and political philosophy and the philosophy of race and gender. Students will learn to apply basic methods of philosophical inquiry, and will engage with work from a culturally diverse selection of authors and filmmakers. The material will be selected with a goal of expanding the students knowledge of the human condition and human cultures, especially as this relates to ideas, values, and institutions. Particular attention will be given to the cultivation of critical reading and writing. (Prerequisites: College level reading and writing). MNTC: Goal 2/Critical Thinking; Goal 6/The Humanities-the Arts, Literature, and Philosophy; Goal 7/Human Diversity. (3 C).

**PHIL 2130 Business Ethics**

This course will help students to develop and improve their ability to make ethical decisions in the business world. Students will become familiar with common types of ethical dilemmas that arise in business, and will learn how to apply ethical concepts to help resolve them. The course will cover stakeholder relationships, conflicts between personal morality and organizational norms, and the relationship between law and ethics. We will also discuss the social responsibilities of business regarding issues such as discrimination and diversity, the environment, and international relations. (Prerequisites: Appropriate placement in college level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 9/Ethnic and Civic Responsibility.

**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, 0 lab).

### **PMT 1105 Shop Safety, Manual Mill and Lathe Theory**

This course describes the basic components of a manual mill and lathe. Emphasis will also be placed on safe application and handling of equipment. (Prerequisites: None. Co-requisites: PMT 1095, PMT 1115, PMT 1255, PMT1300). (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 devices 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 CNC Machining and Turning**

This course describes the basic components of a CNC milling and turning center with using various devices on the machines. Emphasis will also be placed on safe application and handling of the equipment. (Prerequisites: None. Co-requisites: PMT 1095, PMT 1105, PMT 1115, PMT 1300). (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 CNC Coordinates and Offsets**

This course explains the arrangement and orientation of the basic axes on a common CNC lathe and CNC mill. This course identifies the various offsets used on both the lathe and the mill to properly reference each cutting tool in relationship to the workpiece. Emphasis will also be placed on safe application and handling of the equipment. (Prerequisites: PMT 1095, PMT 1105, PMT 1115, PMT 1255, PMT 1300). (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 1825 Quality Assurance**

This course identifies how each department and function of a company plays a role in producing quality products for the customer. Focus is placed on the impact quality assurance has on a company's success. (Co-requisites: PMT 1705, PMT 1755, PMT 1855, PMT 1900, PMT 1950). (1 C).

**PMT 1855 Introduction to Geometric Dimensioning and Tolerancing**

This course introduces the fundamental concepts of geometric dimensioning and tolerancing (GD&T) and describes the main types of tolerances. (Prerequisites: None). (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 will include safety, measuring parts to print, proper set up, speeds and feeds, and cutting tool usage. (Prerequisites: PMT 1095, PMT 1105, PMT 1115, PMT 1255, PMT 1300). (6 C/0 lect, 6 lab).

**PMT 1950 Manufacturing Internship**

This course is designed to provide the student with occupational experience in the manufacturing field. Each internship is individualized. A training plan is created for each student along with the training site. A contract with the skills and knowledge is created for each student. (Prerequisites: PMT 1095, PMT 1105, PMT 1115, PMT 1255, PMT 1300; Co-requisites: CAD 1039, CAD 1230, PMT 1300, PMT 1705, PMT 1755, PMT 1825, PMT 1855, PMT 1900). (2 C/0 lect, 2 lab).

**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: Admission into Practical Nursing Program). (1 C).

**PNM 1250 Nursing Fundamentals in the Care of the Older Adult**

This course introduces the student to basic skills, concepts and principles, and expectations for providing holistic patient care to the older adult. Topics will include basic nursing procedures, communication skills, ethical/legal responsibilities, medical/surgical asepsis, holistic geriatric care, and nursing documentation. Special topics in the care of the older adult including: physical/psychological changes, social, psychosexual and cognitive needs and changing demographics and diversity of the aging population. Nursing procedures related to basic patient needs will be taught through clinical simulation in the nursing laboratory. The student will have the opportunity to integrate nursing theory in both the acute and a long-term care setting. 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). Co-requisites: BIOL 1107, ENGL 1117, PNM 1200, PNM 1210). (7 C/4 lect, 9 lab/clinical per week).

**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). (Co-requisites: PSYC 2618, PNM 1340). (6 C/4 lect, 2 lab).

**PNM 1340 Adult Nursing**

This course provides an introduction and exploration of adult health disorders. Principles and concepts of health and 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, sensory gastrointestinal, endocrine, respiratory, cardiovascular, blood, peripheral vascular, genitourinary, reproductive and renal disorders. This course includes clinical experiences to enhance practical understanding and treatment of disorders in the adult within the LPN scope of practice. (Prerequisites: Current CPR certification; Satisfactory completion of Semester I PNM requirements. Co-requisites: PSYC 2618, PNM 1320). (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 and prevention as it relates to the individual, family and 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: PNM 1320, 1340; PSYC 2618). (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 1660 Health Psychology**

This course will examine the psychological and social factors that lead to the enhancement of physical health and the prevention and treatment of illness. (Prerequisites: College level reading and writing skills). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

#### **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: College level reading and writing). (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: 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.

#### **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: College level reading and writing). (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: College level reading and writing). (3 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.

#### **PSYC 2918 General Psychology: Honors**

This course is an advanced introduction to the scientific study of behavior and mental processes. One of Phi Theta Kappas Honors Study Topic themes will unite topics covered in a traditional general psychology course such as research methods, Nature/Nurture, Learning, Memory, Thinking, Language, Development, Intelligence, Emotions, Stress, Personality, Social Psychology, and Psychological Disorders. Through an examination of primary text and the completion of an original research project, emphasis will be placed on the critical analysis and integration of broad psychological theory as it connects to the selected theme. This course is the Honors Equivalent of PSYC 2618. (Prerequisites: INFS 2915). (4 C/4 Hours/Week).

### **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 course 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: College level reading skills). (2 C).

#### **READ 2292 Specially Designed Independent Study: Intro College Reading-Advanced Level**

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).

### **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).

**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 will encounter in the workplace. Key topics include leadership, motivation, confidentiality, and organizational and individual behavior as they relate to discrimination, 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, and nurture ethical behaviors in a competitive environment. (Prerequisites: None). (3 C).

**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 1137 Leading Innovation and Change**

The 21st Century workplace demands leaders who respond to the ever-changing needs of the global work environment. 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 today's workplace. Students will learn to lead effectively and to identify and overcome resistance to change by creating a work environment where change and innovation is expected and viewed as positive. (Prerequisites: None). (3 C).

**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 1217 Foundations of Quality and Continuous Improvement**

In today's global environment, providing high quality products and services is essential for organizational success. This course provides learners with the foundations of quality management systems and the tools necessary to implement a successful quality management system. 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, and gain approval and support for successful implementation. (Prerequisites: None). (3 C).

#### **SMGT 1221 Decision Making and Problem Solving Skills**

This course will teach participants the skills and resources needed to define and resolve organizational problems and to make decisions by using the right tools and processes to achieve quality and continuous improvement. Students will learn to conduct a root cause analysis, develop and implement solutions, and assure solutions were effective. Special attention will be given to the role of creativity in problem-solving as well as the importance of using multiple perspectives, collaboration, and communication in the problem-solving cycle. (Prerequisites: None). (3 C).

#### **SMGT 1225 Leading Effective Teams and Meetings**

This course focuses on strategies to build and lead effective work teams. Students will learn tools and techniques in building strong teams, leading and facilitating productive meetings, and resolving conflicts. 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). (3 C).

#### **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 1327 Managing Employee Performance and Conflict**

Today's workplace demands employees exceed expectations. This course covers techniques for setting, monitoring, and improving employee performance and the link between effective performance feedback and employee retention. Students will learn procedures

for setting performance standards, measuring results, and discussing employee performance. In addition, students will explore skills necessary for conducting an effective performance review including how to plan for a performance review meeting, develop a performance improvement plan, provide for periodic progress reviews and practice interim coaching skills. (Prerequisites: None). (3 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 1352 Employee Recruiting, Retention and Employee 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. (Prerequisites: None). (4 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: 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. Recommended entry skills/knowledge: Reading and writing at the college level is encouraged. (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). MNCT: 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). MNCT: 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). MNCT: 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 describe, explain and develop responses to current and potential problems in the environment. (Prerequisites: College level reading and writing). (3 C). MNCT: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 10/People and the Environment.

### **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). MNCT: 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.

**SOMALI****SOMA 1101 Somali I**

This course provides an introduction to Somali language and culture. Communication skills include: speaking, listening, reading and writing. Sensitivity to cultural differences is emphasized. Simple texts dealing with cultural topics are used to develop skills in speaking. The four skills: speaking, comprehending, reading and writing are developed simultaneously. This course is designed for students with very little or no previous experience with the Somali language. (Prerequisites: None). (4 C). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

**SOMA 1102 Somali II**

This course is a continuation of SOMA I, with increased emphasis on Somali culture and language skills, including speaking, listening, reading, and elementary creative writing, as well as an awareness of and sensitivity to cultural differences. This course is interactive and taught in Somali. This course uses text and modern media, including audio and video recordings, as well as information printed on websites and news in Somali from across the world. (Prerequisites: SOMA 1101 and demonstration of competency or faculty placement). (4 C). MNTC: Goal 2/Critical Thinking and Goal 8/Global Perspectives.

**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 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, 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 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, 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 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 1610, 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 1610, NA 1610, 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).

**STSK 2291 Study Skills**

This is a 1 credit individualized learning course. The course will cover the concepts, methods, and strategies for effective and efficient learning in college. Topics to be explored and practiced will include: time management, strategies for successfully completing homework, and strategies for taking tests. (Prerequisites: none). (1 C).

**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 THTR 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: THTR 1121 or permission of instructor). (3 C/3 lect, 0 lab).

## VETERINARY TECHNICIAN

### **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. Topics 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. 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: 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. 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: Grade of C or better in all required previous VT coursework and general education requirements). (2 C).

### **VT 1510 Veterinary Office Procedures**

This course introduces common business procedures used in veterinary practice such as bill collection, appointment scheduling, telephone techniques, record keeping, merchandising, and supervision of employees. The course includes follow-up and discharge procedures, filing and record retention, and using the computer in veterinary medicine. This is meant to serve as an overview of veterinary practice management including veterinary marketing, 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. 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 to the program; Grade of C or better in all required previous VT courses). (2 C/1 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 positioning, and legal requirements. (Prerequisites: 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. 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: 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. 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: 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. **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 or equivalent Minimum one-year high school typing/keyboarding skills. (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. **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 or equivalent Minimum one-year high school typing/keyboarding skills Completed VA courses with an overall GPA of 2.0. (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. **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 or equivalent Minimum one-year high school typing/keyboarding skills Completed VT courses with an overall GPA of 2.0. (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). (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). (3 C/1 lect, 2 lab).

#### **VT 2620 Applied Diagnostic Imaging**

This course is a continuation of VT 1610, Fundamentals of Diagnostic Imaging. 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 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, radiology, and surgery preparation. The course will also incorporate an on line review workshop in order for the students to review material taught during their program. **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 or equivalent Minimum one-year high school typing/keyboarding skills. (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. 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 Completed VT courses with an overall GPA of 2.0. (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 are 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 1026). (4 C/3 lect, 1 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. 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 or equivalent Minimum one-year high school typing/keyboarding skills. Completed VT courses with an overall GPA of 2.0. (Prerequisites: 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. 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 or equivalent Minimum one-year high school typing/keyboarding skills Completed VT courses with an overall GPA of 2.0. (Prerequisites: All subsequent Veterinary Technology coursework; grade of C or better in all required previous VT courses). (2 C/1 lect, 1 lab).

**WELDING TECHNOLOGY****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. (Prerequisites: MATH 1015 or MATH 1016. Co-requisites: WELD 1002, WELD 1003, WELD 1004, WELD 1005, WELD 1006). (4 C/2 lect/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. Co-requisites: WELD 1001, WELD 1003, WELD 1004, WELD 1005, WELD 1006). (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. Co-requisites: WELD 1001, WELD 1002, WELD 1004, WELD 1005, WELD 1006). (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. Co-requisites: WELD 1001, WELD 1002, WELD 1003, WELD 1005, WELD 1006). (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. Co-requisites: WELD 1001, WELD 1002, WELD 1003, WELD 1004, WELD 1006). (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. (2 weeks). (Prerequisites: Completion of MATH 1015 or placement test into MATH 0098 and MATH 1016 and completion of WELD 1001, WELD 1002, WELD 1003, WELD 1004 and WELD 1005 with a letter grade of C or above). (2 C).

# **Faculty and Administration Credentials**

**Arneson, Shelli**  
**Human Services**

BA	Sociology, General	Simpson College
MS	Health Science	Mankato State University

**Arroyave, Lillyam**  
**Spanish**

BS	Psychology	Universidad del Norte Barranquilla, Colombia 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

**Baias, Simona**  
**Reading**

BA	English Language and Literature	Babes-Bolyai University - Cluj-Napoca, Romania
MA	Education - Curriculum and Instruction w/Reading focus	Concordia University

**Baker, Mary**  
**Nursing Assistant**

AA	Nursing	Rochester Community and Technical College
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**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

**Beighley, Warren**  
**Building Utilities Mechanic**

Diploma	Building Utilities Mechanic	Rochester Community and Technical College
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**Benson, Pamela**  
**Computer Aided Drafting**

Diploma	Precision Manufacturing Technology	Rochester Community and Technical College
AS	Engineering	Rochester Community and Technical College
BAS	Technology Management	Bemidji State University
MS	Industrial Technology/Career and Technical Education	Bemidji State University

**Bjorkley-Campbell, Kerri**  
**Nursing**

AS	Nursing	Rochester Community and Technical College
BSN	Nursing	Augsburg College
MS	Nursing Education	Winona 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**

BSEd	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**  
**Communication Studies**

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**

Certificate	Adult Learning	University of Calgary
BS	Biochemistry	Mount Allison University, Canada
MS	Animal Science/Equine Science	University of Prince Edward Island, Canada

**Clement, Annie**  
**Communication Studies**

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
MA	Literacy Education	St. Mary's University - Winona, MN
MEd	Teaching and Learning	St. 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**

Diploma	Dental Assistant	Rochester Area Vocational-Technical Institute
AA	General Education	Rochester Community and Technical College
BA	Professional Studies	Winona State University

**Cronin, Leonard**  
**Accounting**

AA		Central Lakes College
BS	Accounting	Saint Cloud State University
MBA	Business Admin/Mgmt, Gen	Winona State University

**Davenport, Mary**  
**Interim President**

BS	Family/Consumer Science Ed.	University of Wisconsin - Stevens Point
MS	Textiles/Related Arts	University of Wisconsin - Stout
MS	Family & Consumer Sciences	University of Wisconsin - Stout
EdS	Guidance and Counseling	University of Wisconsin - Stout
PhD	Educational & Human Resource Studies/Occupational & Educational Studies	Colorado State 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

**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**

ADN	Nursing	Rochester Community and Technical College
BSN	Nursing	Augsburg College
MSN	Nursing Education	Viterbo University

**Finseth, Wayne**  
**Alcohol and Drug Counseling**

BS	Psychology	Winona State University
MS	Community Counselor Education	Winona State University

**Flaig Prinsen, Bonnie**  
**English**

BA	English	Mankato State University
MA	English	Mankato State University

**Fleck, Elizabeth**  
**Mathematics**

BS	Statistics	Winona State University
BS	Mathematics Education	Winona State University
MS	Mathematics	Michigan State University

**Fors, Brian**
**Interim Dean of Sciences and Health Professions**

BA	History	Moorhead State University
MA	History	University of Iowa
PhD	American History	University of Iowa

**Frame, Brenda**  
**Interim Dean of Liberal Arts**

BA	Mathematics	St. Olaf College
EdD	Mathematics Education	University of Montana
MEd	Mathematics Education	University of MN - Minneapolis

**Frank, Matthew**  
**Sociology**

AA	Liberal Arts and Science	Roch. Comm. & Tech. College
AS	Liberal Studies	Roch. Comm. & Tech. College
BA	Sociology	Winona State University
MS	Sociology: Corrections	Mankato State University

**Fritz, Barbara**  
**Biology**

AA		Anoka-Ramsey Community College
BA	Biology	St. Cloud State University
MA	Biology, Molecular, Cellular, and Organismal	St. Cloud State University

**Fritz, Cherie**  
**Dental Hygiene**

AS	Dental Hygiene	Rochester Community and Technical
BS	Dental Hygiene	College University of Minnesota

**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
MAIS	History/Psychology	Western New Mexico University
MS	Educational Administration	Eastern Illinois University
PhD	English	University of Mississippi

**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

**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**  
**Communication Studies**

BA	Speech Communication and Political Science	University of Minnesota, Morris
MA	Communication Studies	Northern Illinois University

**Hammill, Tara**  
**Business Administrative Technology**

AAS	Medical Secretary	Roch. Comm. & Tech. College
BA	Business Technology, Leadership and Education	Metropolitan State University
MS	Career and Technical Education	Bemidji 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

**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

**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**

AD	Nursing	Rochester Community and Technical College
BSN	Nursing	Winona State University
MSN	Nursing	Winona State University

**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**  
**Interim Associate Dean of Nursing**

BA	Nursing	College of St. Scholastica - Duluth
MSN	Nursing	University of Minnesota

**Johnson, Doreen**  
**English**

BS	Business Education	Bemidji State University
BS	General Business	St. Cloud State University
MFA	Creative Writing	Hamline University
MBA	Business Administration	University of Minnesota - Duluth

**Juenemann, Mary**  
**Health Information**

BA	Health Information Administration	College of St. Scholastica
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-Schleeter, Vicky**  
**Psychology**

AA	Secretarial	Rochester Community and Technical College
BS	Elementary Education/Early Childhood Minor	Winona State University
MA	Psychology	Northcentral University
MA	Developmental Disabilities	Saint Mary's College

**Kennedy, Betsy**  
**Nursing**

BSN	Nursing	Marquette University
MS	Nursing	Boston University

**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

**Korf, Gina**  
**Biology**

BA	Biology	St. Catherine's University
PhD	Molecular Biology	University of California, San Diego

**Kroeger, Joseph**  
**Health Information**

AAS	Health Information Technology	Rochester Community and Technical College
BS	Health Information Management	Dakota State University
MHA	Health Administration	A.T. Still 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
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**Lee, Tammy  
Business**

AA		Bethany Lutheran College
BS	Business Admin/Mgmt	Mankato State University
MBA	Business Admin/Mgmt	Mankato State University
EdD	Education Policy and Administration	University of Minnesota

**Lepper, Jeffrey  
English**

BA	English	University of Wisconsin - Eau Claire
MFA	Creative Writing	University Of Idaho

**Lexvold, David  
Building Utilities Mechanic**

Diploma	Building Utilities	Rochester Community and Technical College
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**Ma, Jim  
Computer Science**

MS	Computer Science	University of Missouri - St. Louis
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**MacLeod, David  
Automobile Mechanics**

Diploma	Auto Mechanics	Rochester Community and Technical College
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**Mahlberg, Jamie  
Psychology**

BA	Psychology	Loras College
MA	Psychology	University of Northern Iowa
EdD	Educational Leadership	Minnesota State University Mankato

**Martinez, Jessie  
Economics**

MA	Economics	Central Michigan University
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**McCormick, James  
English**

		University of Wisconsin - Madison
BA	English/German	University of Wisconsin - Madison Western
MA	English	Michigan University
PhD	English	

**Mehra, Ajay  
Health Information**

		Ridgewater College
AAS	Health Information Technology	University Of Delhi, India
BS	Biology	Rice Memorial Hospital
RT	Radiologic Technology	

**Meier, Jason  
English**

BA	English/Spanish	University of Minnesota - Duluth
MA	English Education	University of Minnesota - Duluth

**Milbrandt, Rod  
Physics**

BA	Physics/Mathematics	Saint Olaf College
MS	Physics	University of Wisconsin - Madison
MS	Medical Physics	University of Wisconsin - Madison
PhD	Physics	University of Wisconsin - Madison

**Mohawk, Randy  
Law Enforcement**

AAS	Law Enforcement	Alexandria Community & Technical College
BS	Law Enforcement	Metropolitan State University
MS	Criminal Justice	St. Cloud State University

**Mohr, Lisa  
Dean of Student Success**

AA	General	Rochester Community and Technical College
BA	Sociology	University of Minnesota
MS	College Student Personnel	University of Wisconsin - LaCrosse
Graduate Certificate	Gender and Women's Studies	Wester Kentucky University

**Mosier, Greg  
Exec. Vice President, Academic Affairs**

BA	Industrial Scientific Photography	Brooks Institute of Photography
MS	Management	Troy State University
EdD	Higher Education Administration	New Mexico State University

**Musgjerd, Jean  
Health**

BS	Physical Education	Bemidji State University
MS	Physical Education: Sport Administration	Bemidji State University

**Mutschelknaus, Mike  
English**

BA	English	Kent State University
MA	English	Kent State University
EdD	Leadership	Saint Mary's University

**Nerud, Brenda  
Veterinary Technology**

AAS	Animal Health Technology	University of Minnesota
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**O'Bryan, Allan  
Accounting**

MAcc	Masters of Accountancy	Missouri State University
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**Olinger, Tricia  
Business Administrative Technology**

AA	Liberal Arts	Riverland Community College
AAS	Administrative Assistant	Riverland Community College
BS	Business Administration	Southwest State University

**O'Neill, Timothy  
Philosophy**

BS	Philosophy	Eastern Michigan University
MA	Philosophy	Michigan State University

**Piensi, 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 / Health**

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	Liberal Arts	University of Iowa
BS	Medicine - Physician Assistant	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

**Rogers, Michon  
Business Administrative Technology**

AA	Liberal Arts	Rochester Community and Technical College
BS	Business Administration	Winona State University
MEd	Human Resource Development	University of Minnesota

**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, Cory  
Biology**

BS	Animal Science	University of Illinois - Urbana - Champaign
MS	Natural Resources and Environmental Sciences	University of Illinois - Urbana - Champaign
PhD	Natural Resources and Environmental Sciences	University of Illinois - Urbana - Champaign

**Rubin, Jennifer  
Biology**

BA	Biology	St. Olaf College
MS	Plant Biology	University of Illinois - Urbana - Champaign
PhD	Plant Biology	University of Illinois - Urbana - Champaign

**Ruemping, Priscilla  
Mathematics**

AA	Liberal Arts	Roch. Comm. & Tech. 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	Accounting	Loras College
BA	Finance	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

**Shea, Brendan**  
**Philosophy**

BA	English	Winona State University
MA	Philosophy	University of Illinois
PhD	Philosophy	University of Illinois

**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 Mechanic**

Diploma	Electronic Engineering Technician	Rochester State Junior College
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**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
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**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**

Diploma	Accountant, Junior	Rochester Community and Technical College
BA	Organizational Management and Communications	Concordia University
MA	Organizational Management	Concordia University

**Tjossem, Jaime**  
**Biology**

BS	Biology	University of Wisconsin - Eau Claire
MS	Biology	University of Wisconsin - Eau Claire

**Tweeten, Taresa**  
**Communication Studies**

BA	Speech Communication and Theatre	Gustavus Adolphus College
MA	Speech Communication	University of North Carolina - Greensboro

**Vang, Deborah**  
**Counseling**

MS	Counseling: College Student Personnel	Minnesota State University, Mankato
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**Vedamuthu, Daniel**  
**Art**

BFA	Art	University of Wisconsin - Stout
MA	Art	Minnesota State University - Mankato

**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**  
**Communication Studies**

BA	Communications	Bluffton College
MA	Rhetoric and Communication	Kent State University

**Whitfield, Pamela  
English**

BA	English	St. Andrews Presbyterian College
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	Rochester Community College
BS	Nursing	Winona State University
MS	Nursing	University of Minnesota

**Wilson, Shirley  
Business Administrative Technology**

Diploma	Chiropractic	Northwestern Chiropractic College
BA	Business Technology, Leadership and Education	Metropolitan State University

**Wirt, Elizabeth  
Nursing**

ADN	Nursing	Rochester Community and Technical College
BSN	Nursing	Winona State University
MSN	Nursing	Winona State University
DNP	Nursing	Metropolitan 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  
Communication Studies**

BA	Speech	University of North Dakota
MA	Speech Communication	San Diego State University

**Yankowiak, Rick  
Building Utilities Mechanic**

Diploma	Construction Electrician	Albert Lea Vocational College
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**York, Amanda  
Health Unit Coordinator**

Certificate	Health Unit Coordinator	Rochester Community and Technical College
AAS	Business Management	Rochester Community and Technical College

**York, Stacey  
Child Development**

AA	Early Childhood Studies	Saddleback College
BS	Parent Education	University of Minnesota
BS	Child Development	University of Minnesota
MA	Human Development	Pacific Oaks College

**Zirbel, Eileen  
Surgical Technology**

Diploma	Surgical Technology	Rochester Area Vocational and Technical Institute
AA	Accounting	North Iowa Area Community College

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