Table of Contents

Table of Contents ............................................................................................................................................ 1
General Information .................................................................................................................................................. 2
RCTC's Mission, Vision, Values and Outcomes .............................................................................................. 2
Accreditations and Memberships ........................................................................................................................ 3
Policies ................................................................................................................................................................... 5
Admissions and Records ...................................................................................................................................... 6
Transfer Information .............................................................................................................................................. 7
Academic Calendar ................................................................................................................................................ 7
Financial Aid .......................................................................................................................................................... 9
Academic Advising and Counseling ................................................................................................................... 9
Minnesota Transfer Curriculum (MnTC) ............................................................................................................. 9
Articulation Agreements ..................................................................................................................................... 31
Award Information ................................................................................................................................................ 32
Academic Programs .......................................................................................................................................... 34
Academic Program Overviews and Program Plans .......................................................................................... 37
Course Descriptions .......................................................................................................................................... 287
Faculty and Administration Credentials ............................................................................................................ 409
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 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 Accreditation of Educational Programs For Emergency Medical Services Personnel (COAEMSP)
  830 Lakeview Pkwy, Suite#111-312
  Rowlett, TX 75088
  214.703.8445

• 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 North Central Two Year Colleges (CNTYC)
• Council for Advancement and Support of Education (CASE)
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/](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.

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.1 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://www.mnscu.edu/board/policy/1b01.html and http://www.mnscu.edu/board/procedure/1b01p1.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.

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.

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
The Admissions and Records Office maintains a permanent, 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](http://www.rctc.edu/admissions/pre/admission_transfer.html).

**Academic Calendar**

Academic Calendars in the Minnesota State Colleges and Universities system are subject to 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 more information and the most up-to-date information regarding RCTC’s Academic Calendar: [http://www.rctc.edu/admissions/html/academic_calendar.html](http://www.rctc.edu/admissions/html/academic_calendar.html).

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

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

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

### 2016-17 (Dates subject to change)

#### Academic Calendar (PDF version)

**Fall Semester - 2016**

**Registration Dates / Windows**

<table>
<thead>
<tr>
<th>Classes begin</th>
<th>Mon.</th>
<th>Aug. 22, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Day to Drop (Full-Term Courses)</td>
<td>Fri.</td>
<td>Aug. 26, 2016</td>
</tr>
</tbody>
</table>

*(See Drop/Add Policy for details on non-concurrent and short-term courses.)*
<table>
<thead>
<tr>
<th>Event</th>
<th>Days</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Success Day - No Classes</td>
<td>Wed.</td>
<td>Aug. 31, 2016</td>
</tr>
<tr>
<td>Labor Day Holiday - No Classes</td>
<td>Mon.</td>
<td>Sept. 5, 2016</td>
</tr>
<tr>
<td>Veterans Day Holiday - No Classes</td>
<td>Fri.</td>
<td>Nov. 11, 2016</td>
</tr>
<tr>
<td>Thanksgiving Break</td>
<td>Thur.-Fri.</td>
<td>Nov. 24 &amp; 25, 2016</td>
</tr>
<tr>
<td>Fall Semester Ends</td>
<td>Fri.</td>
<td>Dec. 16, 2016</td>
</tr>
</tbody>
</table>

**Spring Semester - 2017**

**Registration Dates / Windows**

<table>
<thead>
<tr>
<th>Event</th>
<th>Days</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes begin</td>
<td>Mon.</td>
<td>Jan. 9, 2017</td>
</tr>
<tr>
<td>Last Day to Drop (Full-Term Courses)</td>
<td>Fri.</td>
<td>Jan. 13, 2017</td>
</tr>
<tr>
<td>(See Drop/Add Policy for details on non-concurrent and short-term courses.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martin Luther King Day Holiday- No Classes</td>
<td>Mon.</td>
<td>Jan. 16, 2017</td>
</tr>
<tr>
<td>Student Success Day - No Classes</td>
<td>Thurs.</td>
<td>Jan. 19, 2017</td>
</tr>
<tr>
<td>Faculty Duty Day - No Classes</td>
<td>Tues.</td>
<td>Jan. 31, 2017</td>
</tr>
<tr>
<td>Presidents Day Holiday - No Classes</td>
<td>Mon.</td>
<td>Feb. 20, 2017</td>
</tr>
<tr>
<td>Spring Break - No Classes</td>
<td>Mon.-Fri</td>
<td>Mar. 6-10, 2017</td>
</tr>
<tr>
<td>Faculty Duty Day - No Classes</td>
<td>Wed.</td>
<td>Mar. 29, 2017</td>
</tr>
<tr>
<td>Spring Semester Ends</td>
<td>Wed.</td>
<td>May 10, 2017</td>
</tr>
<tr>
<td>Commencement - <em>Time To Be Determined</em></td>
<td>Thur.</td>
<td>May 11, 2017</td>
</tr>
</tbody>
</table>

**Summer Session - 2017**

**Registration Dates / Windows**

<table>
<thead>
<tr>
<th>Event</th>
<th>Days</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Session Begin</td>
<td>Tues.</td>
<td>May 30, 2017</td>
</tr>
<tr>
<td>Last Day to Drop (Full-Session Courses)</td>
<td>Tues.</td>
<td>July 4, 2017</td>
</tr>
<tr>
<td>(See Drop/Add Policy for details on non-concurrent and short-term courses.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence Day Holiday Observed - No Classes</td>
<td>Tues.</td>
<td>Aug. 10, 2017</td>
</tr>
<tr>
<td>Summer Session Ends</td>
<td>Thur.</td>
<td>Aug. 10, 2017</td>
</tr>
</tbody>
</table>
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 Advisor 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.

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

<table>
<thead>
<tr>
<th>Course No</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1114</td>
<td>Fundamentals of Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1130</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2100</td>
<td>Intercultural Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2130</td>
<td>Team/Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2214</td>
<td>Career Communication</td>
<td>3</td>
</tr>
<tr>
<td>COMM 2220</td>
<td>Communication and Gender</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1109</td>
<td>Introduction to Technical Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1117</td>
<td>Reading and Writing Critically I</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 1118</td>
<td>Reading and Writing Critically II</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 2230</td>
<td>Minnesota Writers</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course No</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1611</td>
<td>Physical Anthropology &amp; Archeology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 1612</td>
<td>Cultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANTH 1613</td>
<td>Folklore of the Americas and Beyond</td>
<td>3</td>
</tr>
<tr>
<td>ARAB 1101</td>
<td>Beginning Arabic I</td>
<td>4</td>
</tr>
<tr>
<td>ARAB 1102</td>
<td>Beginning Arabic II</td>
<td>4</td>
</tr>
<tr>
<td>ARAB 2101</td>
<td>Intermediate Arabic I</td>
<td>4</td>
</tr>
<tr>
<td>ARAB 2102</td>
<td>Intermediate Arabic II</td>
<td>4</td>
</tr>
<tr>
<td>ART 1010</td>
<td>Introduction to Art</td>
<td>3</td>
</tr>
<tr>
<td>ART 1110</td>
<td>Art Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>ART 1111</td>
<td>Art History Survey I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1112</td>
<td>Art History Survey II</td>
<td>3</td>
</tr>
<tr>
<td>ART 1120</td>
<td>Computer As Creative Media</td>
<td>3</td>
</tr>
<tr>
<td>ART 1121</td>
<td>2D Design</td>
<td>3</td>
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<tr>
<td>ART 1123</td>
<td>3D Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 1124</td>
<td>Graphic Design I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1130</td>
<td>Digital Art I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1134</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1140</td>
<td>Printmaking: Relief and Intaglio</td>
<td>3</td>
</tr>
<tr>
<td>ART 1144</td>
<td>Painting I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1164</td>
<td>Ceramics I</td>
<td>3</td>
</tr>
<tr>
<td>ART 1175</td>
<td>Art of the Islamic World</td>
<td>3</td>
</tr>
<tr>
<td>ART 1184</td>
<td>Photography I</td>
<td>3</td>
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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

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<td>Fundamentals of Anatomy &amp; Physiology</td>
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<td>Human Biology</td>
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<td>BIOL 1127</td>
<td>Principles of Anatomy &amp; Physiology I</td>
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<td>Principles of Anatomy &amp; Physiology II</td>
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<td>Concepts of Biology</td>
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<td>BIOL 2000</td>
<td>Ecology</td>
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<td>BIOL 2021</td>
<td>General Microbiology</td>
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<td>BIOL 2300</td>
<td>Genetics</td>
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<td>Introduction to Forensic Chemistry</td>
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<td>CHEM 1100</td>
<td>Chemistry &amp; Our World</td>
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<td>CHEM 1101</td>
<td>Elements of Chemistry</td>
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<td>CHEM 1117</td>
<td>General, Organic and Biological Chemistry I</td>
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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

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<td>Foundations of Mathematics: Geometry Emphasis</td>
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<td>Statway Statistics II</td>
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<td>MATH 1111</td>
<td>Contemporary Concepts in Mathematics</td>
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<td>MATH 1113</td>
<td>Finite Math With College Algebra</td>
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<td>MATH 1115</td>
<td>College Algebra</td>
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<td>MATH 1117</td>
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<td>MATH 1119</td>
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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

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<td>Cultural Anthropology</td>
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<td>ECON 1101</td>
<td>Introduction to Economics</td>
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<td>Principles of Economics: Micro</td>
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<td>Principles of Economics: Macro</td>
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<td>GEOG 1614</td>
<td>Human Geography</td>
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<td>HIST 1611</td>
<td>The Ancient World</td>
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<td>HIST 1612</td>
<td>The Medieval World</td>
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<td>HIST 1613</td>
<td>Foundations of Western Civilization: From Ancient Greece to 1715</td>
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<td>HIST 1614</td>
<td>Europe in the Modern Age: 1715-Present</td>
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<td>War and Peace in the 20th Century</td>
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<td>World History to 1500</td>
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<td>World History Since 1500</td>
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<td>HIST 1622</td>
<td>History in Minnesota</td>
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<td>U.S. History to 1865</td>
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<td>HIST 1625</td>
<td>U.S. History 1865-Present</td>
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<td>HIST 1628</td>
<td>History of the Americas</td>
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### Course List

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<td>HIST 1789</td>
<td>History of the American Presidency</td>
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<td>HIST 2070</td>
<td>History of the Rock and Roll Era</td>
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<td>HIST 2619</td>
<td>Issues in Modern World History</td>
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<td>Introduction to Mass Communication</td>
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<td>Mass Communication Theory</td>
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<td>Introduction to American Government</td>
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<td>POLS 1619</td>
<td>International Relations</td>
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<td>Constitutional Law</td>
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<td>PSYC 1600</td>
<td>Positive Life Skills</td>
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<td>PSYC 1611</td>
<td>Psychology of Adjustment</td>
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<td>PSYC 1650</td>
<td>Evolution and Human Behavior</td>
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<td>Abnormal Psychology</td>
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<td>Human Growth &amp; Development</td>
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<td>Sex and Gender in Society</td>
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<td>Introduction to Sociology</td>
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<td>SOC 1616</td>
<td>Social Problems</td>
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<td>Marriage and the Family Across the Life Span</td>
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<td>SOC 2618</td>
<td>Social Interaction</td>
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<td>SOC 2625</td>
<td>Minority Group Relations</td>
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**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 students' 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 experiences 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**

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<td>ART 1111</td>
<td>Art History Survey I</td>
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<td>Art History Survey II</td>
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<td>Printmaking: Relief and Intaglio</td>
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<td>Adolescent Literature</td>
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<td>The Bible as Literature: Honors</td>
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<td>French Culture in a Global Context</td>
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<td>Introduction to Hispanic Cultures</td>
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<td>French-Speaking Cultures (In English)</td>
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<td>Ancient Greek &amp; Roman Culture &amp; the Middle Ages: 900 B.C. to 1400 A.D.</td>
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<td>The Art of Being Human</td>
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<td>Brave New Worlds: The Humanities and Contemporary Culture (1965-Present)</td>
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<td>American Cinema</td>
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<td>Music Fundamentals</td>
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<td>Music, Video, Lights</td>
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<td>MUSC 1201</td>
<td>History of Music to 1600</td>
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<td>History of Music Since 1600</td>
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<td>Popular Music in the United States</td>
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<td>MUSC 1231</td>
<td>Introduction to World Music</td>
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<td>Movies and Composers</td>
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<td>Marching Percussion Ensemble</td>
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<td>Beginning Class Voice</td>
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<td>MUSC 1501</td>
<td>Musicianship I</td>
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<td>MUSC 1601</td>
<td>Electronic Music Composition I</td>
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<td>MUSC 2450</td>
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<td>Environmental Ethics</td>
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<td>Bioethics</td>
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<td>Aesthetics</td>
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<td>PHIL 1160</td>
<td>Philosophy of Religion</td>
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<td>PHIL 2001</td>
<td>Science Fiction and Philosophy</td>
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<td>PHIL 2130</td>
<td>Business Ethics</td>
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<td>SPAN 1001</td>
<td>Introduction to Hispanic Cultures</td>
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<td>SPAN 1102</td>
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<td>THTR 1121</td>
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<tr>
<td>THTR 1134</td>
<td>Theatre Appreciation</td>
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</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>ANTH 1611</td>
<td>Physical Anthropology &amp; Archeology</td>
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<td>ANTH 1612</td>
<td>Cultural Anthropology</td>
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<tr>
<td>ANTH 1613</td>
<td>Folklore of the Americas and Beyond</td>
<td>3</td>
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<tr>
<td>COMM 1130</td>
<td>Interpersonal Communication</td>
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</tbody>
</table>
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**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>ARAB 1101</td>
<td>Beginning Arabic I</td>
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<td>ART 1110</td>
<td>Art Appreciation</td>
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<tr>
<td>ART 1111</td>
<td>Art History Survey I</td>
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<td>ART 1112</td>
<td>Art History Survey II</td>
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<td>ART 1175</td>
<td>Art of the Islamic World</td>
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<td>ASL 1107</td>
<td>American Sign Language I</td>
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<td>ASL 1108</td>
<td>American Sign Language II</td>
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<td>CHIN 1101</td>
<td>Beginning Chinese I</td>
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<td>Beginning Chinese II</td>
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<tr>
<td>COMM 2100</td>
<td>Intercultural Communication</td>
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<tr>
<td>ECON 2215</td>
<td>Principles of Economics: Macro</td>
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<td>ENGL 1121</td>
<td>Mythology &amp; Ancient Legend</td>
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<td>ENGL 1125</td>
<td>Women's Perspectives</td>
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<td>ENGL 2255</td>
<td>Shakespeare: Screen, Stage, and Page</td>
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<td>ENGL 2978</td>
<td>The Bible as Literature: Honors</td>
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<td>FREN 1001</td>
<td>French Culture in a Global Context</td>
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<td>Beginning French I</td>
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<td>GEOG 1614</td>
<td>Human Geography</td>
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<td>HIST 1611</td>
<td>The Ancient World</td>
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<td>HIST 1612</td>
<td>The Medieval World</td>
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<tr>
<td>HIST 1613</td>
<td>Foundations of Western Civilization: From Ancient Greece to 1715</td>
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<td>HIST 1614</td>
<td>Europe in the Modern Age: 1715-Present</td>
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<td>HIST 1615</td>
<td>War and Peace in the 20th Century</td>
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<td>HIST 1617</td>
<td>World History to 1500</td>
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<td>HIST 1618</td>
<td>World History Since 1500</td>
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<td>HIST 1631</td>
<td>Modern Asian Civilizations</td>
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<td>HIST 1650</td>
<td>History of Religion</td>
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<tr>
<td>HIST 2619</td>
<td>Issues in Modern World History</td>
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<td>HUM 1001</td>
<td>Introduction to Hispanic Cultures</td>
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<tr>
<td>HUM 1020</td>
<td>French-Speaking Cultures (In English)</td>
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<tr>
<td>HUM 1111</td>
<td>Ancient Greek &amp; Roman Culture &amp; the Middle Ages: 900 B.C. to 1400 A.D.</td>
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<td>HUM 1112</td>
<td>The Renaissance Through the Enlightenment: 1400 A.D. to 1770 A.D.</td>
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<td>The Romantic Age Through the Modern Age: 1770 A.D. to 2000 A.D.</td>
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<td>HUM 1131</td>
<td>The Art of Being Human</td>
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<td>HUM 2121</td>
<td>Women's Issues Around the World</td>
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<td>HUM 2255</td>
<td>Shakespeare: Screen, Stage, and Page</td>
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<td>MUSC 1231</td>
<td>Introduction to World Music</td>
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<td>MUSC 1340</td>
<td>World Drum Ensemble</td>
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<td>Philosophy of Religion</td>
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<td>PSYC 2620</td>
<td>Introduction to Cultural Psychology</td>
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<tr>
<td>THTR 1134</td>
<td>Theatre Appreciation</td>
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</tbody>
</table>

**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**

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<td>ENGL 2274</td>
<td>Modern American Literature</td>
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<td>HIST 1789</td>
<td>History of the American Presidency</td>
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<td>HUM 1500</td>
<td>Compassion Studies</td>
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<tr>
<td>HUM 1841</td>
<td>Studies in Leadership</td>
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<td>MCOM 1110</td>
<td>Introduction to Mass Communication</td>
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<tr>
<td>PHIL 1114</td>
<td>Introduction to Philosophy</td>
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<td>Ethics</td>
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<td>Bioethics</td>
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<td>Business Ethics</td>
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<td>POLS 1615</td>
<td>Introduction to American Government</td>
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<td>POLS 1620</td>
<td>Constitutional Law</td>
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<tr>
<td>POLS 1630</td>
<td>Introduction to Political Science</td>
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<tr>
<td>SOC 1616</td>
<td>Social Problems</td>
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</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>BIOL 1100</td>
<td>Environmental Biology</td>
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<tr>
<td>BIOL 1102</td>
<td>Plant Biology</td>
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<tr>
<td>BIOL 1220</td>
<td>Concepts of Biology</td>
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<tr>
<td>BIOL 2000</td>
<td>Ecology</td>
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<tr>
<td>CHEM 1100</td>
<td>Chemistry &amp; Our World</td>
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<td>ECON 1101</td>
<td>Introduction to Economics</td>
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<td>ECON 2214</td>
<td>Principles of Economics: Micro</td>
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<td>ENGL 2284</td>
<td>Literature and the Environment</td>
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<td>ESCI 1004</td>
<td>Earthquakes and Volcanoes</td>
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<td>ESCI 1101</td>
<td>Principles of Geoscience</td>
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<td>ESCI 1115</td>
<td>Historical Geology</td>
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<td>Introduction to Environmental Geology</td>
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<td>ESCI 1154</td>
<td>Introduction to Meteorology</td>
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<td>GEOG 1615</td>
<td>Economic Geography</td>
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<td>PHIL 1130</td>
<td>Environmental Ethics</td>
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<td>PSYC 1650</td>
<td>Evolution and Human Behavior</td>
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<tr>
<td>SOC 1618</td>
<td>Environmental Sociology</td>
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</table>
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

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 9: Ethic & Civic Responsibility
Goal 8: Global Perspective  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

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

For a list of all RCTC Articulation Agreements visit: 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
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.
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:

<table>
<thead>
<tr>
<th>Academic Programs</th>
<th>Awards</th>
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<tr>
<td>Accounting</td>
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<tr>
<td>Accounting Clerk</td>
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<td>Child, Youth, and Family Studies: Diversity</td>
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<td>Child, Youth, and Family Studies: Inclusion and Youth Studies</td>
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<tr>
<td>Youth Work</td>
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</table>
Program Overviews and Program Plans
Accounting

Career/Program Overview

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 diploma 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.

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.

Accreditations/Articulations

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

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: http://www.rctc.edu/catalog/articulations/

Additional Information

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

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ............................................. 30 Credits

Goal 1: Written and Oral Communication ................................................................. 7 cr
COMM 1114, Fundamentals of Speech, 3 cr
ENGL 1117, Reading & Writing Critically I, 4 cr

Goal 3: Natural Science ................................................................................. 6 cr
Choose two courses with labs from different areas that meet MnTC Goal 3

Goal 4: Mathematics/Logical Reasoning ................................................. 3-5 cr
MATH 1119, Applied Calculus for Business Majors, 3 cr OR
MATH 1127, Calculus I, 5 cr

Goal 5: History and the Social and Behavioral Sciences ............................... 11 cr
ECON 2214, Principles of Microeconomics, 4 cr
ECON 2215, Principles of Macroeconomics, 4 cr
Three credits from MnTC Goal 5

Goal 6: Humanities – the Arts, Literature, and Philosophy ............................ 3 cr
Credits from MnTC Goal 6

II. Business Core Requirements ........................................................................... 30 Credits
ACCT 1814, Payroll Accounting, 3 cr
ACCT 2217, Financial Accounting, 4 cr
ACCT 2218, Managerial Accounting, 4 cr
ACCT 2234, Computerized Accounting, 3 cr
ACCT 2237, Accounting Spreadsheet Applications, 3 cr
ACCT 2836, Accounting and Database Applications, 3 cr
BUS 2201, Principles and Marketing, 3 cr
BUS 2210, Legal Environment of Business, 3 cr
BUS 2212, Business & Economics Statistics, 4 cr

TOTAL .................................................................................................................. 60 Credits

ACCOUNTING (Associate in Science Degree), Suggested Course Sequence

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<th>Semester I</th>
<th>Semester II</th>
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<td>BUS 2212, 4 cr</td>
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<td>ECON 2214, 4 cr</td>
<td>General Education Elective, 6 cr</td>
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Revised: 03/14/2013
Implementation: Fall 2013
ACCOUNTING CLERK
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .......................... 7 Credits
MNTC approved courses – take at least one
ENGL 1109, Introduction to Technical Communication, 3 cr
OR
ENGL 1117, Reading and Writing Critically I, 4 cr
Remaining 3-4 credits to be taken from MnTC General Education courses or RCTC Additional General Education Options (Allied Studies) Areas 11-14

II. Professional Program-Related Courses .............................................................................. 20 Credits
    ACCT 1807, Accounting Math/Calculators, 3 cr
    ACCT 1814, Payroll Accounting, 3 cr
    ACCT 2217, Financial Accounting, 4 cr
    ACCT 2218, Managerial Accounting, 4 cr
    ACCT 2234, Computerized Accounting, 3 cr
    ACCT 2237, Accounting Spreadsheet Applications, 3 cr

III. Accounting Related Electives ................................................................................................ 4 Credits
Recommended Electives: Any ACCT, BTEC, BUS, ECON, SMGT or course approved by program advisor

TOTAL ........................................................................................................................................... 31 Credits

COURSE SEQUENCE:

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<thead>
<tr>
<th>Semester I</th>
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<td>General Education Electives, 4 cr</td>
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Purpose: The Accounting Clerk Diploma prepares students to process manual or computerized accounting records for a business, such as recording and posting sales invoices, disbursements, deductions from payroll, pay and expense vouchers, remittances paid and due, checks, and claims. Students will also learn to compute and record interest charges, process refunds, determine cost of lost or damaged goods, and calculate freight or express charges. Documents prepared may include vouchers, invoices, account statements, payrolls, periodic reports, bank statement’s reconciliation, etc.

The program prepares students for positions with titles such as accounting clerk, accounts payable clerk (with accounting duties specified), accounts receivable clerk, advance payment clerk (clerical), billing clerk, cash posting clerk, tax record clerk, and payroll clerk.
The accounting clerk diploma program is designed as an occupational program leading to employment upon graduation. If pursuing further education, check with receiving institution regarding which RCTC credits will transfer because each college or university determines what credits will transfer to their institution.

**Prerequisites:** The student should have average to above average ability in reasoning and reading comprehension. Students should be proficient in basic communications and basic math. Discretion, judgment, and initiative are also important. In addition to accounting skill competence, employers seek accountants who have common sense, sound judgment, ambition, dependability, initiative, poise and talent.

Revised: 05/10/2016
Implementation: Fall 2016
Administrative Assistant

Career/Program Overview

RCTC offers various degree options as an Administrative Assistant and Administrative Assistant: Legal Emphasis.

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 organization and problem solving skills, resourcefulness, respect and responsibility 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.

Careers related to Administrative Assistant are:
- Software Applications Specialist
- Administrative Clinic Assistant
- Customer Service Assistant/Specialist

Program/Degree Options

- Administrative Assistant, Certificate
- Administrative Assistant, Diploma
- Administrative Assistant, Associate in Applied Science
- Administrative Assistant, Associate in Science
- Administrative Assistant Refresher, Certificate
- Administrative Assistant: Legal Emphasis, Certificate
- Customer Service Administrative Specialist, Diploma
- Customer Service Office Assistant, Certificate
- Software Applications Specialist, Certificate
- 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. All courses in the Administrative Assistant AS, AAS, Administrative Assistant, Customer Service Diploma, Administrative Assistant including Legal and Customer Service Certificate and Software Applications Specialist options are available online. Many courses within each of these programs are also offered on campus and in a hybrid format (on campus and online) too.

Career Opportunities/Information

Job opportunities may be available in large and small offices including Charter Communications, Ag Star, IBM, Mayo Clinic, Olmsted Medical, 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.

Salaries for Administrative Assistants will vary in Minnesota depending upon specialty skills. Average salary is $18.30 in MN and salaries range from $16.36 to $23.06.

Average salary for a Customer Service Specialist is $15.26. The salary range for a Customer Service Specialist is $12.39 to $23.36.

Average salary of a Software Specialist is $15.86. The salary range of a Software Specialist is $8.17 to $21.15. Salaries for Customer Service Specialists and Software Applications Specialists will vary in Minnesota depending upon specialty skills.

Average salary of an Administrative Clinic Assistant is $15.63 to $21.95.

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.

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/btec/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
ADMINISTRATIVE ASSISTANT  
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements.......................... 15 Credits

Goal 1: Written and Oral Communication ................................................................. 4 cr
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MnTC 1-10 GOALS

Goal 3: Natural Sciences
Credits from MnTC Goal 3 (Course must include a lab) OR

Goal 4: Mathematics/Logical Reasoning
Mathematics must be 1111 level or above
3 credits from either Goal 3 or Goal 4 ................................................................. 3 cr

Goal 5: History and the Social and Behavioral Sciences .................................. 3 cr
Credits from MnTC Goal 5

Goal 6: The Humanities—the Arts, Literature, and Philosophy .................. 3 cr
Credits from MnTC Goal 6

Any MnTC Goal 1-10 Courses............................................................... 2 cr

II. Professionally-Related Business 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

NOTE: Students entering this program must be proficient in keyboarding skills at a minimum of 45 net
wpm or successfully completing BTEC1020, Keyboarding and/or BTEC 1030, Keyboarding Speed and
Accuracy as elective options.
IV. Electives .............................................................................................................................. 2 Credits

Recommended Electives:
- 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 and 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

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

Revised: 05/19/2015
Implementation: Fall 2015
ADMINISTRATIVE ASSISTANT
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Ed Requirements……………………30 Credits

   Goal 1: Written and Oral Communication ............................................................. 4 cr
       ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Science
       Credits from MnTC goal 3 (Must include a lab)
       OR
   Goal 4: Mathematics/Logical Reasoning ............................................................... 3 cr
       Mathematics must be 1111 level or above

   Goal 5: History and the Social and Behavioral Sciences ....................................... 3 cr
       Credits from MnTC Goal 5 - Recommended: PSYC 1611, Psychology of Adjustment, 3 cr

   Goal 6: The Humanities-the Arts, Literature, and Philosophy .............................. 3 cr
       Credits from MnTC Goal 6 - Recommended: PHIL 1125, Ethics, 3 cr

       Any MnTC Goal 1-10 Courses........................................................................... 17 cr

II. Professionally-Related Business Requirements......................................................... 30 Credits

       BTEC 1050, Keyboarding for Professionals, 2 cr
       BTEC 1220, Human Relations in Organizations, 3 cr
       BTEC 1320, Documentation 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

NOTE: 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 and Accuracy. This class will not count toward the required credits for the program.
TOTAL ..................................................................................................................................  .60 Credits

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

Revised: 05/19/2015
Implementation: Fall 2015
ADMINISTRATIVE ASSISTANT
Certificate

I. Professionally-Related Business Requirements .......................................................... 28 Credits
BTEC1220, Human Relations in the Work Organization, 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 and 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

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

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1020 Keyboarding. This class will not count toward the required credits for the program.

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

Revised: 05/19/2015
Implementation: Fall 2015
I. Professionally-Related Business 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 and 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

*NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1020 Keyboarding, as their elective credit.

TOTAL .................................................................................................................................... 38 Credits

Purpose: This program is designed to prepare the student for employment as an Administrative Information Processing Assistant utilizing word processing skills. Administrative Information Processing Assistants 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.

Revised: 05/19/2015
Implementation: Fall 2015
ADMINISTRATIVE ASSISTANT: LEGAL EMPHASIS
Certificate

I. Professionally-Related Business Requirements ................................................................. 19 Credits
   BTEC 1030, Keyboarding for Speed and Accuracy, 1 cr
   BTEC 1320, Document Production, 3 cr
   BTEC 2235, Quality Digital Transcription, 3 cr
   BTEC 2330, Advanced Document Production, 3 cr
   BTEC 2350, Microcomputer Business Applications, 3 cr
   BUS 2210, Legal Environment of Business, 3 cr
   PHIL 1125, Ethics, 3 cr

II. Electives .................................................................................................................. 4 Credits
   BTEC 1020, Keyboarding, 1 cr
   BTEC 1050, Keyboarding for Professionals, 2 cr
   BTEC 2365, Advanced Microcomputer Business Applications, 3 cr
   BTEC 2600, Microsoft Office Outlook, 1 cr
   BTEC 2614, Customer Service Skills and Concepts, 3 cr
   BTEC 2615, Applied Customer Service Skills, 2 cr
   BTEC 2616, Professionalism in the Workplace, 2 cr
   BTEC 2617, Support Role for Meeting/Event Planning, 2 cr
   BTEC 2622, Current Workplace Technology 2 cr

TOTAL ........................................................................................................................................ 23 Credits

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding
skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1020
Keyboarding. This class will not count toward the required credits for the program.

Purpose: This certificate prepares students interested in working in a legal environment such as law offices,
courts, and police departments, as well as in legal departments of business or government offices. Emphasis
is placed on business law, ethics, and the production of quality documents. Students will create queries from
databases and spreadsheets with charts. The benefit of completing the Administrative Assistant Legal
Emphasis Certificate will prove to be advantageous when seeking employment opportunities.

TOTAL................................................................. 23 Credits

Revised: 05/19/2015
Implementation: Fall 2015
ADMINISTRATIVE ASSISTANT REFRESHER
Certificate

I. Professionally Related Business Requirements .........................................................19 Credits
   BTEC 1320, Document Production, 3 cr
   BTEC 2220, Business Communications, 3 cr

   BTEC 2350, Microcomputer Business Applications, 3 cr AND
   BTEC 2450, PowerPoint, 1 cr
   OR
   BTEC 2355, Microsoft Business Applications, 4 cr

   BTEC 2600, Microsoft Outlook, 1 cr
   BTEC 2614, Customer Service Skills and Concepts, 3 cr
   BTEC 2615, Applied Customer Service Skills, 2 cr
   BTEC 2622, Current Workplace Technology, 3 cr

II. Electives ......................................................................................................................2 Credits
    Recommended Electives:
    BTEC1020, Keyboarding, 1 cr
    BTEC 1030, Keyboarding Speed & Accuracy, 1 cr
    BTEC 1050, Keyboarding for Professionals, 2 cr

TOTAL .....................................................................................................................................21 Credits

PURPOSE: This short term certificate program is a refresher program for students who have worked as an
administrative assistant and want to be updated in current technology and software. This program is good for
rejuvenating customer service and business communication skills needed as an administrative assistant. If you
have been out of the administrative assistant career field for a brief period of time, this certificate program will
be an excellent way to show potential employers your skills are current with today’s business technology
standards.

Revised: 05/10/2016
Implementation: Fall 2016
Administrative Clinic Assistant

Career/Program Overview

A career as an Administrative Clinic Assistant involves patient and physician contact, detailed appointment scheduling, phone work. Successful completion of this program would prepare you to assume the role of a Patient Service Representative, Patient Appointment Coordinator and Clinical Assistant.

Curriculum-at-a-Glance

Coursework will include written and oral communications, applied customer service skills, computer applications, workplace technology, medical terminology and body systems and patient interactions.

Program/Degree Options

- Administrative Clinic Assistant, Diploma
- Administrative Clinic Assistant, Associate of Applied Science
- Administrative Assistant, Certificate
- Administrative Assistant, Diploma
- Administrative Assistant, Associate in Applied Science
- Administrative Assistant, Associate in Science
- Administrative Assistant Refresher, Certificate
- Administrative Assistant: Legal, Certificate
- Customer Service Administrative Specialist, Diploma
- Customer Service Office Assistant, Certificate
- Software Application Specialist, Certificate

Program Start Date(s)

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

Career Opportunities/Information

Job opportunities for Administrative Clinic Assistants may be available in large and small clinics including Mayo Clinic, Olmsted Medical, Chiropractic, Podiatry, Optometric and Dental clinics.

Salaries for Administrative Clinic Assistant will vary in Minnesota depending upon clinic specialty. Average starting salary is $15.63 to $21.95.

Salaries for Administrative Assistants will vary in Minnesota depending upon specialty skills. Average salary is $18.30 in MN and salaries range from $16.36 to $23.06.

Average salary for a Customer Service Specialist is $15.26. The salary range for a Customer Service Specialist is $12.39 to $23.36.

Average salary of a Software Specialist is $15.86. The salary range of a Software Specialist is 8.17 to 21.15.

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

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

Additional Information

Program Website: [http://www.rctc.edu/program/aca/](http://www.rctc.edu/program/aca/)
Program Plan: [http://www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)
More Information: [http://www.rctc.edu/contact/](http://www.rctc.edu/contact/)
I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .......... 15 Credits

Goal 1: Written and Oral Communication .............................................................. 3 cr
ENGL 1109, Introduction to Technical Communication, 3 cr OR
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 4: Mathematics/Logical Reasoning ............................................................... 3 cr
Suggested: PHIL 1145, Logic, 3 cr OR
MATH 1111, Contemporary Concepts in Mathematics, 3 cr

Goal 5: History and the Social and Behavioral Sciences .................................. 3 cr
Suggested: PSYC 1611, Psychology of Adjustment, 3 cr

Goal 6: The Humanities-the Arts, Literature, and Philosophy .......................... 3 cr
Suggested: PHIL 1125, Ethics, 3 cr OR
COMM 2130, Team/Small Group Communications, 3 cr

Any Additional MNTC Goal 1-10 Courses ........................................................... 3 cr

II. Professionally-Related Business Requirements ........................................... 36 Credits
BTEC 1001, Success in the Digital and Online Learning Environment, 1 cr
BTEC 1015, Essential Computer Applications, 2 cr
BTEC 1030, Keyboarding Speed and 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
III. **Electives**.......................................................................................................................................................... 9 Credits

**Suggested electives:**
- 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

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

**TOTAL .......................................................................................................................... 60 Credits**

**Purpose:** A career as an Administrative Clinic Assistant involves patient and physician contact, detailed appointment scheduling, phone work, electronic medical record maintenance and tracking. Students will understand the importance of team building, working in a fast paced electronic work environment. Training will involve both classroom training and hands on training. 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.

**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](https://www.revisor.mn.gov/statutes/?id=245C.15).

05/19/2015
Implementation: Fall 2015
ADMINISTRATIVE CLINIC ASSISTANT
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Ed Requirements ..................................3 Credits
PSYC 1611, Psychology of Adjustment, 3 cr

II. Professionally-Related Business 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, 3 cr
BTEC 2615, Applied Customer Service Skills and Concepts, 2 cr
BTEC 2622, Current Technology in the Workplace, 3 cr
BTEC 2670, 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
Suggested Electives:
BTEC 1020, Keyboarding, 1 cr
BTEC 1030, Keyboarding Speed and 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

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

*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: 05/19/2015; Implementation: Fall 2015
ADVANCED HOSPITAL NURSING ASSISTANT  
Certificate

Program Approved: State of Minnesota Department of Health

Core Requirements............................................................................................................................. 16 Credits
BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
HLTH 1110, CPR for the Health Care Professional, 1 cr
NA 1500, Nursing Assistant Theory and Clinical, 4 cr
    (Approved State of Minnesota Department of Health Curriculum)
NA 1602, Hospital Nursing Assistant, 2 cr
PSYC 1611, Psychology of Adjustment, 3 cr

TOTAL ........................................................................................................................................... 16 Credits

Any student completing the sixteen credit Advanced Hospital Nursing Assistant Certificate is eligible to apply for graduation. Graduation applications are available online or at Admissions and Records.

Note Course Prerequisites:
1) ENGL 1117: College level reading and writing skills; appropriate placement skills. Please contact the Welcome Center at (507) 285-7557 for information on Academic Skills Assessments.
2) PSYC 1611: College level reading and writing skills.
3) BTEC 1610: D2L online tutorial if taking online course.
4) NA 1500: Successful completion or concurrent enrollment in ENGL 1117, PSYC 1611, BTEC 1610.
3) NA 1602: NA 1500 or equivalent college course.*

*ALL STUDENTS taking NA 1602 are required to take a National Criminal Background check at a cost of $55 during the first week of class. This fee is not included in your tuition. You will need to pay for it by credit card, debit card, or cashier’s check.

This program of study may be completed in one (1) semester. Classes may be taken on campus with some course options offered online.

Additional Nursing Assistant Optional Components:
Long-Term Care Nursing Assistant/Home-Health Aide**
NA 1500, Nursing Assistant Theory and Clinical, 4 cr
NA 1501, Home-Health Aide Theory, 1 cr

**Students who successfully complete the Long Term Care Nursing Assistant Theory & Clinical (NA 1500) are eligible to take the State Nursing Assistant Competency Examination. If a student also completes the Home-Health Aide Theory (NA 1501) with the necessary skills and information they are eligible to take the combined State Nursing Assistant/Home-Health Aide Competency Examination.
Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a National Criminal background Study. Information about completing the background study will be available from program faculty.

PURPOSE: The Nursing Assistant curriculum is designed to prepare students for careers in health care under the supervision of the licensed nurse. The student will learn the basic entry-level nursing skills to work in health care. A Nursing Assistant may be involved in direct patient/resident care or assist with care of the patient/resident unit and/or equipment, charting, record keeping and home-health services. This advanced certificate is designed for the student interested in a fast paced, acute care, hospital environment.

The Nursing Assistant Theory and Clinical may provide a career ladder. Successful completion of Nursing Assistant Theory and Clinical curriculum is a required component of Advanced Hospital Nursing Assistant, Human Services Technician, Practical Nurse, Associate Degree Nursing and Surgical Technology programs.

Revised: 01/12/2012
Alcohol and Drug Counseling

Career/Program Overview

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 a associate’s degree or higher and focuses on the professional 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.

All interested students must complete admission requirements prior to enrolling in the ADC courses. Contact the Health Careers Advisor or Department Coordinator for the admission application.

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.

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.

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 Bachelors in Social Work and the St. Mary University of Minnesota Bachelors in Psychology.

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

Additional Information

Program Website: http://www.rctc.edu/program/alcohol-drug-counseling/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
ALCOHOL AND DRUG COUNSELING
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ............... 35 Credits
   Goal 1: Written and Oral Communication ..................................................... 11 cr
   COMM 1114, Fundamentals of Speech, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   ENGL 1118, Reading & Writing Critically II, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ............................................................................. 4 cr
   BIOL 1110, Human Biology, 4 cr

   Goal 4: Mathematics/Symbolic Systems ......................................................... 4 cr
   MATH 1090, Statway Statistics II, 4 cr
   OR
   MATH 2208, Fundamentals of Statistics, 4 cr

   Goal 5: History and the Social and Behavioral Sciences............................... 10 cr
   PSYC 2618, General Psychology, 4 cr
   PSYC 2626, Human Growth & Development, 3 cr
   SOC 1614, Introduction to Sociology, 3 cr

   Goal 6: The Humanities - the Arts, Literature, and Philosophy ...................... 6 cr
   HUM/SPAN 1001, Introduction to Hispanic Cultures, 3 cr
   *One additional 3-credit course from Art, English Literature, Dance, Humanities,
   Music or Philosophy

II. Professional Program-Related Courses ........................................................................... 25 Credits
   HS 1710, Foundations of Alcohol and Drug Counseling, 3 cr
   HS 1720, Co-Occurring Disorders, 3 cr
   HS 1730, Screening and Assessment of Disorders, 2 cr
   HS 1740, Pharmacology of Addiction, 2 cr
   HS 1750, Case Management and Ethics, 3 cr
   HS 1760, Multicultural Aspects of Addiction, 3 cr
   HS 1765, Addictions Counseling Theory and Practice, 3 cr
   HS 1770, Alcohol and Drug Counseling Practicum I*, 3 cr
   HS 1780, Alcohol and Drug Counseling Practicum II*, 3 cr

TOTAL ....................................................................................................................... 60 Credits

*Must complete the Criminal Background study required by the Minnesota Department of Human
Services and qualify for direct client contact prior to enrollment in HS 1770 and HS 1780.
Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

PURPOSE: The Alcohol and Drug Counseling track of the Associates Degree in Human Services provides the necessary academic course work requirement for licensure. Requirements for licensure as an Alcohol and Drug Counselor by the Minnesota Board of Behavioral Health and Therapy changed on July 1, 2008. Applicants must receive a bachelor’s degree from an accredited school, including 18 semester credits and 880 clock hours of supervised Alcohol and Drug Counseling Practicum.

SELECTIVE ADMISSION PROCESS: The Alcohol and Drug Counseling Program requires a program application in addition to the application for admission to the college. Admission requirements and application are available at http://www.rctc.edu/admissions/pre/admission requirements.html.

Revised: 04/12/2016
Implementation: Fall 2016
ALCOHOL AND DRUG COUNSELING
Certificate

I. Professional Program-Related Courses .................................................................................. 25 Credits
HS 1710, Foundations of Alcohol and Drug Counseling, 3 cr
HS 1720, Co-Occurring Disorders, 3 cr
HS 1730, Screening and Assessment of Disorders, 2 cr
HS 1740, Pharmacology of Addiction, 2 cr
HS 1750, Case Management and Ethics, 3 cr
HS 1760, Multicultural Aspects of Addiction, 3 cr
HS 1765, Addictions Counseling Theory and Practice, 3 cr
HS 1770, Alcohol and Drug Counseling Practicum I*, 3 cr
HS 1780, Alcohol and Drug Counseling Practicum II*, 3 cr

TOTAL ................................................................................................................................... 25 Credits

*Must complete the Criminal Background study required by the Minnesota Department of Human Services and qualify for direct client contact prior to enrollment in HS 1770 and HS 1780.

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

PURPOSE: The Alcohol and Drug Counseling 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 in the State of Minnesota. Upon successful completion of the Alcohol and Drug Counseling Certificate at RCTC, students are eligible to sit for the IC&RC national exam and apply for LADC licensure with the Minnesota Board of Behavioral & Health.

Alcohol & Drug Counseling CERTIFICATE Admission Criteria:
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
   ii. One personal recommendation

SELECTIVE ADMISSION PROCESS: The Alcohol and Drug Counseling Program requires a program application in addition to the application for admission to the college. Admission requirements and application are available at http://www.rctc.edu/admissions/pre/admission requirements.html.

Implementation: Fall 2014
Art

Career/Program Overview

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

Curriculum-at-a-Glance


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; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, 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. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

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

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

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

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

Gainful Employment Programs

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.

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: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact
ART + DESIGN: ART
Associate in Fine Arts

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements……………28 Credits

Goal 1: Written and Oral Communication ……………………………………………………7 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Public Speaking, OR COMM 1130, Interpersonal Communication, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ………………………………………………………………………3 cr
Credits from MnTC Goal 3

Goal 4: Mathematics/Logical Reasoning …………………………………………………...3 cr
MATH 1111 Contemporary Concepts in Mathematics, 3 cr
OR higher level mathematics course that meets MnTC Goal 4

Goal 5: History and the Social and Behavioral Sciences ……………………………….3 cr
Credits from MnTC Goal 5

Goal 6: The Humanities—the Arts, Literature and Philosophy ………………………..3 cr
Credits from MnTC Goal 6

MnTC General Education Requirements…………………………………………………..…….9 cr
Any MnTC approved courses from the above areas. AFA degree require a minimum of 24 semester credits in general education and general education credits shall be selected from at least six of the ten goal areas of the Minnesota Transfer Curriculum. One additional goal in Goal 7, 8, 9, or 10 must be completed (two credit minimum).

II. Program-Related Requirements…………………………………………………………..20 Credits
ART 1111, Art History Survey I, 3 cr
ART 1112, Art History Survey II, 3 cr
ART 1121, 2D Design, 3 cr
ART 1123, 3D Design, 3 cr
ART 1134, Drawing I, 3 cr
ART 2281, Art Portfolio, 2 cr
ART 2292, Directed Studio, 3 cr

II. Electives………………………………………………………………………………………...12 Credits
ART 1120, Computer as Creative Media, 3 cr
ART 1124, Graphic Design I, 3 cr
ART 1130, Digital Art I, 3 cr
ART 1144, Painting I, 3 cr
ART 1164, Ceramics I, 3 cr
ART 1184, Introduction to Digital Photography, 3 cr
ART 2234, Drawing II, 3 cr
ART 2264, Ceramics II, 3 cr
Any 2000 level ART course for transfer as elective credit, 3 cr

**TOTAL**...........................................................................................................................................60 Credits

An articulation agreement has been established between RCTC and Mankato State University. Online studio courses may not transfer, please refer to the articulation agreement. Other colleges may have different transfer requirements.

Revised: 03/13/2013
Automobile Mechanic

Career/Program Overview

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

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

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

Curriculum-at-a-Glance

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 http://www.rctc.edu/catalog/programs/AMT_DIPL_PR_OG_PLAN.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.

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.

Accreditations/Articulations

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

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

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

Additional Information

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

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ................................8 Credits

Goal 1: Written and Oral Communication.................................................................3 cr
COMM 1130, Interpersonal Communication, 3 cr

Goal 2: Critical Thinking
MATH 1015, Applied Technical Math.................................................................3 cr

2 Credits from any course meeting MnTC Goals 1 – 10.................................2 cr

II. Professional or Technical Credits...........................................................................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

PURPOSE: The Automotive Mechanic major is designed to prepare students for careers in the automotive industry where they will inspect, diagnose, repair, and maintain automobiles. Instruction includes courses in vehicle service, brakes, steering and suspension, starting and charging systems, electrical service, engine overhaul, fuel systems, driveline and differential, clutch and transmissions, and air conditioning. With the introduction of on-board computers, instruction is also given in electronics and other high tech areas such as fuel injection and turbo charging. Instruction combines a comprehensive mix of classroom theory and hands-on experience in the auto lab. Job opportunities exist with repair shops, dealerships, fleet owners, and businesses performing specialized service work. Graduates typically start as entry level mechanics. With further education and/or experience, they can go on to specialize in an area such as rebuilding components.
or they can advance to shop foreman or service manager positions. Some graduates have opened their own repair businesses.

Program Prerequisites: Minimum assessment score to place into READ 0900 or completion of READ 0800 with a grade of “C” or higher.

Revised: 05/10/2016
Implementation:  Fall 2016
Bioinformatics Foundations

Career/Program Overview

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, an AS in Bioinformatics Foundations and a certificate in Computer Programming Skills.

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). The Computer Programming Skills certificate is 16 credits and consists of five courses.

Program Start Date(s)

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

Career Opportunities/Information

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

Accreditations/Articulations

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

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/
BIOINFORMATICS FOUNDATIONS
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements…………40 Credits
   Goal 1: Written and Oral Communication ......................................................... 11 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr
   ENGL 1118, Reading and Writing Critically II, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences .................................................................12 cr
   BIOL 1220, Concepts of Biology, 4 cr
   BIOL 2300, Genetics, 4 cr
   CHEM 1127, Chemical Principles I, 4 cr

   Goal 4: Mathematics/Logical Reasoning ..............................................3 cr
   MATH 1119, Applied Calculus, 3 cr
   OR
   MATH 1127, Calculus I, 5 cr

   Goal 5: History and the Social and Behavioral Sciences ................. ......6 cr
   Choose a minimum of two credits from two different areas from MnTC Goal 5

   Goal 6: Humanities – The Arts, Literature, and Philosophy ................. ....6 cr
   Choose a minimum of two credits from two different areas from MnTC Goal 6

   MnTC Electives...............................................................................2 cr
   Choose credits from approved MnTC courses

II. Program Core Requirements:.................................................................19 Credits
    COMP 1150, Computer Science Concepts, 3 Cr
    COMP 2243, Programming & Problem Solving, 4 Cr
    COMP 2247, Algorithms and Data Structure, 4 Cr
    MATH 2218, Discrete 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
Biotechnology

Career/Program Overview

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 program 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:
http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program website: http://www.rctc.edu/program/biotechnology/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
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 & 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 BEHAVIORAL SCIENCES …………...3 cr
PSYC 1611, Psychology of Adjustment, 3 cr

Goal 6: HUMANITIES – the ARTS, LITERATURE, and PHILOSOPHY …………..3 cr
PHIL 1125, Ethics, 3 cr

II. Professional Requirements……………………………………………………………… 30 Credits

BIOL 1230, Survey of Life Forms, 4 cr
BIOL 2300, Genetics, 4 cr
BIOL 2020, Fundamentals of Biotechnology, 4 cr
CHEM 1127, Chemical Principles I, 4 cr
CHEM 1128, Chemical Principles II, 4 cr
ENGL 1109, Technical Writing, 3 cr
HCCC 1200, Introduction to Clinical/Research Lab, 2 cr
PHYS 1118, Introductory Physics II, 5 cr

TOTAL ……………………………………………………………………………………60 Credits

Admissions Requirements:

1. High school diploma or GED
2. Earn a grade of “C” or better in high school chemistry, biology, and algebra II or complete BIOL 1101, CHEM 1101, and MATH 0099 or equivalent.
3. Place at College level reading, writing, and calculus on the College placement test
Program Objectives: The primary goals of this educational program are:

(i) To provide a strong liberal arts and sciences education at the two year level and facilitate transfer of the graduates to a four year institution for continuation of higher education.

(ii) To provide participants with the technical skills they need to develop the knowledge, skills and attitudes necessary to find employment as a biotechnology technician. Such technicians find employment in research and clinical labs of healthcare organizations, pharmaceutical and healthcare industry, and research institutions.

(iii) To provide participants with an understanding of dealing with human subjects, handling human material, patient bill of rights, legal and regulatory research compliance issues, privacy issues etc.; in other words a “patient care” focus.

BIOTECHNOLOGY A.S. DEGREE, Course sequence

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Total credits: 60

Revised: 09/10/2013
Implementation: Spring 2014
Building Utilities Mechanic

Career/Program Overview

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

Curriculum-at-a-Glance

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 are placed with a co-op training sponsor to gain hands-on work experience. After initial training, students may take the state examination for a special steam engineer’s license. After completion of the second year, students who qualify may take the state examination for second class “A” steam engineer’s license and/or refrigeration certifications.

Program/Degree Options

RCTC offers both a Diploma and an Associate in Applied Science (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.

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

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

Additional Information

Program Website: [http://www.rctc.edu/program/bum/](http://www.rctc.edu/program/bum/)
Program Plan: [http://www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)
More Information: [http://www.rctc.edu/contact/](http://www.rctc.edu/contact/)
BUILDING UTILITIES MECHANIC
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .......... 15 Credits
Nine credits from any MnTC course(s) from the following goals:
Goal 1, Written and Oral Communication, 3 cr (minimum)
Goal 3, Natural Science OR Goal 4, Mathematics, 3 cr (minimum)
Goal 5, History and the Social and Behavioral Sciences, 3 cr (minimum) OR Goal 6, Humanities - the Arts, Literature and Philosophy, 3 cr (minimum)

Six credits of any additional MnTC courses, 3 cr

II. Professional Program-Related Courses ................................................................. 54 Credits

BUM I
BU 1500, Power Plant Theory, 4 cr
BU 1510, Welding Theory, 1 cr
BU 1520, Welding Equipment Repair, 1 cr
BU 1530, Plumbing 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, National Electric Code and Safety, 2 cr

BUM III
BU 2500, Refrigeration Theory, 3 cr
BU 2506, Refrigeration Lab, 3 cr
BU 2512, Commercial Refrigeration, 3 cr
BU 2518, Commercial Refrigeration Lab, 2 cr

BUM IV
BU 2602, HVAC/Refrigeration Systems Theory, 4 cr
BU 2612, HVAC/Refrigeration Systems Lab, 2 cr
BU 2622, HVAC Control Systems Lab, 2 cr
BU 2632, HVAC Control Systems Theory, 3 cr

TOTAL ..................................................................................................................................... 69 Credits

NOTE: Students must test at 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.
Purpose: The Building Utilities Mechanic major is designed to prepare students for careers requiring skills in the operation, maintenance, troubleshooting, and repair of electrical and mechanical equipment found in commercial buildings. Instruction the first year includes courses in boiler operation, electricity, plumbing, tool usage, welding, electrical controls, and programmable controls. Courses in residential and commercial refrigeration, air conditioning, pneumatics, heating and cooling controls, and computerized energy management systems comprise the second year instruction. Graduates usually start at entry level positions in various maintenance operation areas in medical clinics, hospitals, waste to energy plants, power plants, hotels, educational, manufacturing, processing, and industrial facilities. Graduates have been employed as service technicians in the heating/ventilation/air conditioning (H.V.A.C.) field, building trades, and some are self-employed in the H.V.A.C. field.

Revised: 11/03/2015
Implementation: Fall 2016
BUILDING UTILITIES MECHANIC
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .................. 8 Credits
   Eight credits from any course(s) other than BU courses that meet General Education requirements.
   Recommended courses include:
   MATH 1015, Applied Technical Math, 3 cr
   BTEC 1010, Computer Basics, 1 cr
   BTEC 1550, Introduction to Windows, 2 cr
   BTEC 2870, Employment Strategies, 1 cr

II. Professional Program-Related Credits ........................................................................... 64 Credits
   BUM I  BU 1500, Power Plant Theory, 4 cr
   BU 1510, Welding Theory, 1 cr
   BU 1520, Welding Equipment Repair, 1 cr
   BU 1530, Plumbing 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 1641, Electrical Theory II, 3 cr
   BU 1631, Electrical Lab I, 3 cr
   BU 1651, Electrical Lab II, 4 cr
   BU 1661, National Electric Code and Safety, 2 cr
   BUM III  BU 2500, Refrigeration Theory, 3 cr
   BU 2506, Refrigeration Lab, 3 cr
   BU 2512, Commercial Refrigeration, 3 cr
   BU 2518, Commercial Refrigeration Lab, 2 cr
   BU 2555, Building Utilities Mechanic Co-op, 5 cr
   BUM IV  BU 2602, HVAC/Refrigeration Systems Theory, 4 cr
   BU 2612, HVAC/Refrigeration Systems Lab, 2 cr
   BU 2622, HVAC Control Systems Lab, 2 cr
   BU 2632, HVAC Control Systems Theory, 3 cr
   BU 2655, Building Utilities Mechanic Co-op, 5 cr
   TOTAL ..................................................................................................................................... 72 Credits

Optional Courses:
   BU 2651, BUM Coop, 1 cr
   BU 2661, BUM Coop, 2 cr

NOTE: Students must test at Reading 0900 level before enrolling or obtain instructor permission.
Students must have tested at appropriate Math level or successfully completed MATH 1015 before beginning BUM II courses or obtain instructor permission.

**Purpose:** The Building Utilities Mechanic major is designed to prepare students for careers requiring skills in the operation, maintenance, troubleshooting, and repair of electrical and mechanical equipment found in commercial buildings. Instruction the first year includes courses in boiler operation, electricity, plumbing, tool usage, welding, electrical controls, and programmable controls. Courses in residential and commercial refrigeration, air conditioning, pneumatics, heating and cooling controls, and computerized energy management systems comprise the second year instruction. In the second year, students are placed with a co-op training sponsor to gain hands-on work experience.

After initial training, students may take the state examination for a special steam engineer's license.

After completion of the second year, students who qualify may take the state examination for second class "A" steam engineer's license and/or refrigeration certification. Graduates usually start at entry level positions in various maintenance operation areas in medical clinics, hospitals, waste to energy plants, power plants, hotels, educational, manufacturing, processing, and industrial facilities. Graduates have been employed as service technicians in the heating/ventilation/air conditioning (H.V.A.C.) field, building trades, and some are self-employed in the H.V.A.C. field.

Revised: 03/05/2014
Implementation: Fall 2014
Business

Career/Program Overview

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

Curriculum-at-a-Glance

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

Program/Degree Options

RCTC offers 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 (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.

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.

Accreditations/Articulations

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

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: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/bus/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
## BUSINESS ADMINISTRATION
### Associate in Science

**Minnesota Transfer Curriculum (MnTC) General Education Requirements**...Minimum of 30 Credits

### Goal 1: Written and Oral Communication .................................................. 7 cr
- COMM 1114, Fundamentals of Speech, 3 cr
- ENGL 1117, Reading & Writing Critically I, 4 cr

### GOAL 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

### Goal 3: Natural Science ............................................................................. 6 cr
Choose two courses with labs from two different areas from MnTC Goal 3

### Goal 4: Mathematics/Logical Reasoning .................................................. 3-5 cr
- MATH 1113, OR MATH 1115, OR MATH 1117, OR MATH 1119, OR MATH 1127, 4 cr

### Goal 5: History And The Social And Behavioral Sciences ......................... 11 cr
- ECON 2214, Principles of Microeconomics, 4 cr
- ECON 2215, Principles of Macroeconomics, 4 cr
- Three credits from MnTC Goal 5

### Goal 6: Humanities – The Arts, Literature, And Philosophy ....................... 3 cr
Credits from MnTC Goal 6

### Business Core Requirements ..................................................................... 21 Credits
- ACCT 2217, Financial Accounting, 4 cr
- ACCT 2218, Managerial Accounting, 4 cr
- BTEC 2350, Microcomputer Business Applications, 3 cr
- BUS 2201, Principles of Marketing, 3 cr
- BUS 2210, Legal Environment of Business, 3 cr
- BUS 2212, Business & Economic Statistics, 4 cr

### Business Administration Emphasis ............................................................... 9 Credits
Choose three (3) of the following courses:
- BUS 1101, Introduction to Business, 3 cr
- BUS 2144, Introduction to e-Business, 3 cr
- BUS 2150, Introduction to International Business, 3 cr
- BUS 2214, Retailing
- BUS 2232, Principles of Management, 3 cr
- BUS 2296, Business Internship, 3 cr

**TOTAL .............................................................................................................. Minimum of 60 Credits**
<table>
<thead>
<tr>
<th>Semester I</th>
<th>Semester II</th>
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<tbody>
<tr>
<td>ACCT 2217, 4 cr</td>
<td>ACCT 2218, 4 cr</td>
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<tr>
<td>BUS Adm Emphasis Elective, 3 cr</td>
<td>BUS 2201, 3 cr</td>
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<tr>
<td>ENGL 1117, 4 cr</td>
<td>BUS Adm Emphasis Elective, 3 cr</td>
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<td>General Ed Elective – Math, 3-5 cr</td>
<td>COMM 1114, 3 cr</td>
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</table>

<table>
<thead>
<tr>
<th>Semester III</th>
<th>Semester IV</th>
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<tbody>
<tr>
<td>BUS 2212, 4 cr</td>
<td>BUS 2210, 3 cr</td>
</tr>
<tr>
<td>BUS Adm Emphasis Elective, 3 cr</td>
<td>BTEC 2350, 3 cr</td>
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<td>ECON 2214, 4 cr</td>
<td>ECON 2215, 4 cr</td>
</tr>
<tr>
<td>General Education Elective, 3 cr</td>
<td>General Education Elective, 6 cr</td>
</tr>
</tbody>
</table>

Revised: 03/01/2012
Implementation: Fall 2012
BUSINESS ADMINISTRATION
Certificate
(Available day or evening)

I. Core Requirements........................................................................................................ 21 or 22 Credits
ACCT 2217, Financial Accounting, 4 cr
ACCT 2218, Managerial Accounting, 4 cr
BUS 1101, Introduction to Business, 3 cr
BUS 2212, Business & Economic Statistics, 4 cr
BUS 2232, Principles of Management, 3 cr
ECON 1101, Introduction to Economics, 3 cr
OR
ECON 2214, Principles of Economics: Micro, 4 cr

TOTAL ............................................................................................................................ 21 or 22 Credits

COURSE SEQUENCE:

<table>
<thead>
<tr>
<th>FALL SEMESTER</th>
<th>SPRING SEMESTER</th>
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<tbody>
<tr>
<td>BUS 1101</td>
<td>BUS 2212</td>
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<td>ECON 2214</td>
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<td>Total</td>
<td>Total</td>
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</tbody>
</table>

Revised: 02/18/2009
BUSINESS ANALYSIS Certificate

I. Core Requirements.................................................................9 Credits
   BUS 2317, Principles of Business Analysis I, 3 cr
   BUS 2318, Principles of Business Analysis II, 3 cr
   BUS 2319, Principles of Business Analysis III, 3 cr

   TOTAL.................................................................................9 Credits

Business Analysis Certificate Overview:
The Business Analysis Certificate prepares students to analyze the organization and design of businesses, government departments and non-profit organizations. The business analyst’s role is described as a liaison among stakeholders in order to understand the structure, policies and operations of an organization and to recommend solutions that enable the organization to achieve its goals. In the past, this position was often outsourced to consultants, but many companies now prefer to use in-house analysts who have in-depth knowledge of their specific industry.

Career Information:
According to the Minnesota Department of Employment and Economic Development (DEED), future demand for business analysts is above average. In the Southeast region of Minnesota, employment in this occupation is projected to increase by 11 percent by 2016. In addition, national data release by the US Bureau of Labor Statistics has growth in this job area reaching 24 percent between 2008 and 2018.

Implementation: Fall 2012
BUSINESS MANAGEMENT
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .................. 15 Credits

Goal 1: Written and Oral Communication ................................................................. 4 cr
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ......................................................................................... 3 cr
Science must include one lab course in Biology, Chemistry, Earth Science or Physics

OR

Goal 4: Mathematics/Logical Reasoning ............................................................... 3 cr
Mathematics must be 1111 college level or above

Goal 5: History and the Social and Behavioral Sciences ......................................... 3 cr
ECON 1101, Introduction to Economics

Goal 6: Humanities – the Arts, Literature, and Philosophy ................................... 3 cr
Credits from MnTC Goal 6

Additional General Education Requirements ......................................................... 2 cr
Students may choose additional elective credits from MnTC Goals 1-10 to meet
the general education requirements.

II. Business Core Requirements ............................................................................. 22 Credits
BUS 1101, Introduction to Business, 3 cr
BUS 2101, Personal Finance, 3 cr
BUS 2150, Introduction to International Business, 3 cr
BUS 2232, Principles of Management, 3 cr
BUS 2235, Organizational Dynamics, 3 cr
ACCT 2217, Financial Accounting, 4 cr
BTEC 2350, Microcomputer Applications, 3 cr

III. Management Emphasis .................................................................................. 14 Credits
BUS 2201, Principles of Marketing, 3 cr
BUS 2210, Legal Environment of Business, 3 cr
BUS 2240, Project Management, 3 cr
BUS 2290, Current Topics in Business, 1 cr
ACCT 2218, Managerial Accounting, 4 cr

IV. Open Electives ............................................................................................... 9 Credits
Suggested electives, but not limited to:
BUS 1144, Opening & Managing a Business, 3 cr
BUS 2214, Retailing, 3 cr  
BUS 2215, Salesmanship, 3 cr  
BUS 2296, Business Internship, 2-4 cr  
BTEC 2220, Business Communications, 3 cr  

TOTAL .................................................................................................................................... 60 Credits

Purpose: The Business Management Program is designed to provide an overview of the practical and theoretical knowledge needed to help manage organizations. The program is designed to provide opportunities for students to implement and test the skills they learn.

BUSINESS MANAGEMENT (Associate in Applied Science), Suggested Course Sequence

<table>
<thead>
<tr>
<th>Semester I</th>
<th>Semester II</th>
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<tbody>
<tr>
<td>ENGL 1117, 4 cr</td>
<td>General Education Elective, 2 cr</td>
</tr>
<tr>
<td>BUS 1101, 3 cr</td>
<td>BUS 2101, 3 cr</td>
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<tr>
<td>BUS 2150, 3 cr</td>
<td>BUS 2201, 3 cr</td>
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<tr>
<td>BUS 2232, 3 cr</td>
<td>BUS 2210, 3 cr</td>
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<tr>
<td>Math or Science Elective, 3 cr</td>
<td>BUS 2235, 3 cr</td>
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<tr>
<td></td>
<td>BUS 2290, 1 cr</td>
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</table>

<table>
<thead>
<tr>
<th>Semester III</th>
<th>Semester IV</th>
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</thead>
<tbody>
<tr>
<td>ACCT 2217, 4 cr</td>
<td>ACCT 2218, 4 cr</td>
</tr>
<tr>
<td>BTEC 2350, 3 cr</td>
<td>BUS 2220, 3 cr</td>
</tr>
<tr>
<td>ECON 1101, 3 cr</td>
<td>Humanities &amp; Fine Arts Elective, 3 cr</td>
</tr>
<tr>
<td>Open Elective, 4 cr</td>
<td>Open Elective, 4 cr</td>
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<tr>
<td>Open Electives, 5 cr</td>
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</tr>
</tbody>
</table>

Revised: 03/01/2012  
Implementation: Fall 2012
BUSINESS MANAGEMENT
Certificate

I. Core Requirements .................................................................................................................. 13 Credits
   BUS 1101, Introduction to Business, 3 cr
   BUS 2214, Retailing, 3 cr
   OR
   BUS 2215, Salesmanship, 3 cr
   BUS 2232, Principles of Management, 3 cr
   ACCT 2217, Financial Accounting, 4 cr
   TOTAL .................................................................................................................................. 13 Credits

COURSE SEQUENCE:

Fall Semester
   BUS 1101, Introduction to Business, 3 cr
   BUS 2214, Retailing, 3 cr
   BUS 2232, Principles of Management, 3 cr
   ACCT 2217, Financial Accounting, 4 cr

Spring Semester
   BUS 1101, Introduction to Business, 3 cr
   BUS 2215, Salesmanship, 3 cr
   BUS 2232, Principles of Management, 3 cr
   ACCT 2217, Financial Accounting, 4 cr

Revised: 02/18/09
BUSINESS MANAGEMENT – MARKETING
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .................. 15 Credits

Goal 1: Written and Oral Communication ................................................................. 4 cr
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ......................................................................................... 3 cr
3 credits from MnTC Goal 3 course

OR

Goal 4: Mathematics/Logical Reasoning ................................................................. 3 cr
Mathematics must be 1111 college level or above

Goal 5: History and the Social and Behavioral Sciences ......................................... 3 cr
ECON 1101, Introduction to Economics

Goal 6: Humanities – the Arts, Literature, and Philosophy ..................................... 3 cr
Credits from MnTC Goal 6

Additional General Education Requirements ....................................................... 2 cr
Students may choose additional elective credits from MnTC Goals 1-10 to meet the general education requirements.

II. Business Core Requirements ............................................................................... 22 Credits

BUS 1101, Introduction to Business, 3 cr
BUS 2101, Personal Finance, 3 cr
BUS 2150, Introduction to International Business, 3 cr
BUS 2232, Principles of Management, 3 cr
BUS 2235, Organizational Dynamics, 3 cr
ACCT 2217, Financial Accounting, 4 cr
BTEC 2350, Microcomputer Applications, 3 cr

III. Marketing Emphasis ......................................................................................... 16 Credits

BUS 2144, Introduction to E-Business, 3 cr
BUS 2201, Principles of Marketing, 3 cr
BUS 2202, Promotional Strategies, 3 cr
BUS 2215, Salesmanship, 3 cr
BUS 2214, Retailing, 3 cr
BUS 2290, Current Topics in Business, 1 cr
IV. Open Electives ................................................................. 7 Credits

Suggested electives, but not limited to:
ACCT 2218, Managerial Accounting, 4 cr
BUS 1144, Opening & Managing a Business, 3 cr
BUS 2227, Business Law I, 3 cr
BUS 2240, Project Management, 3 cr
BUS 2296, Business Internship, 2-4 cr
BTEC 2220, Business Communications, 3 cr

TOTAL ......................................................................................... 60 Credits

Purpose: This program is designed for students who wish to balance General Education with business-related courses. The program focuses on preparing for careers in sales, advertising, retailing, wholesaling and related fields.

Business Management-Marketing Emphasis, Suggested Program Guide

<table>
<thead>
<tr>
<th>Semester I</th>
<th>Semester II</th>
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</thead>
<tbody>
<tr>
<td>ENGL 1117, 4 cr</td>
<td>BUS 2150, 3 cr</td>
</tr>
<tr>
<td>BUS 1101, 3 cr</td>
<td>BUS 2215, 3 cr</td>
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<td>BUS 2101, 3 cr</td>
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<td>Math or Science Elective, 3 cr</td>
</tr>
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<td>BUS 2214, 3 cr</td>
<td>Open Elective, 3 cr</td>
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</tbody>
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<tr>
<th>Semester III</th>
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</thead>
<tbody>
<tr>
<td>ACCT 2217, 4 cr</td>
<td>BUS 2144, 3 cr</td>
</tr>
<tr>
<td>BUS 2235, 3 cr</td>
<td>BUS 2290, 1 cr</td>
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<td>BTEC 2350, 3 cr</td>
<td>BUS 2202, 3 cr</td>
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<tr>
<td>ECON 1101, 3 cr</td>
<td>Humanities &amp; Fine Arts Elective, 3 cr</td>
</tr>
<tr>
<td>General Education Elective, 2 cr</td>
<td>Open Electives, 4 cr</td>
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</tbody>
</table>

Revised: 03/01/2012
Implementation: Fall 2012
CAD (Computer Aided Drafting) Technology

Career/Program Overview

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

Curriculum-at-a-Glance


Program/Degree Options

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

The CAD Technology Associate 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, sales, and purchasing personnel. The curriculum primarily covers the mechanical disciplines of drafting and design.

Program Start Date(s)

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

Career Opportunities/Information

According to the Occupational Employment Statistics in cooperation with the U.S. Bureau of Labor Statistics, the median wages of mechanical drafters (17-3013) in the United States is $24.97 per hour. In Minnesota the median hourly wage for mechanical drafters is $26.97. In Southeastern Minnesota, mechanical drafters can anticipate a median hourly wage of $23.59.

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.

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/index.html

Additional Information

Program Website: http://www.rctc.edu/program/cadtech/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
Facebook: https://www.facebook.com/RCTCCAD/
COMPUTER AIDED DRAFTING TECHNOLOGY
Associate in Applied Science

I. Minnesota Transfer Curriculum Courses ................................................................. 16 Credits
   Goal 1: Written and Oral Communication ....................................................... 7 cr
   ENGL 1117 (or higher) Reading and Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Public Speaking OR COMM 1130, Interpersonal Communication, 3 Cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences and/or

   Goal 4: Mathematics/Logical Reasoning ......................................................... 3 cr
   Credits from MnTC Goal 3 courses And/Or credits from MnTC Goal 4 Mathematics

   Goal 5: History and the Social and Behavioral Sciences ...................................... 3 cr
   Credits from MnTC Goal 5

   Goal 6: Humanities – Arts, Literature, and Philosophy ..................................... 3 cr
   Credits from MnTC Goal 6

II. Professional Program-Related ..................................................................... 56 Credits
   CAD 1039, 3D CAD, 4 cr
   CAD 1120, Welding Technology, 2 cr
   CAD 1123, Technical Illustration, 2 cr
   CAD 1145, Mfg Mat’l and Processes I, 3 cr
   CAD 1147, Mfg Mat’l and Processes II, 3 cr
   CAD 1150, CAD Data Communications, 3 cr
   CAD 1200, Product Data Management, 1 cr
   CAD 1220, Engineering Drafting, 3 cr
   CAD 1221, Technical Drafting, 3 cr
   CAD 1222, Dimensioning and Tolerancing, 2 cr
   CAD 1323, Basic Dimensioning, 3 cr
   CAD 2323, Advanced Dimensioning, 3 cr
   CAD 2324, Special Projects I, 2 cr
   CAD 2358, Machine Design, 5 cr
   CAD 2400, Reverse Engineering and Rapid Prototyping, 2 cr
   CAD 2424, Special Projects II, 2 cr
   CAD 2335, Working Drawings and Design, 3 cr
   CAD 2440, CAD Portfolio, 2 cr
   CAD 2458, Product Design, 5 cr
   CAD 2460, Surfacing and Advanced Modeling, 3 cr

TOTAL ...................................................................................................................... 72 Credits
PURPOSE: The CAD Technology major is designed to prepare students for a technical career using Computer Aided Drafting tools and techniques. CAD drafters turn concepts, ideas, and rough sketches into mechanical prints then “prototypes” or finished parts can be fabricated, designed or repaired. The curriculum primarily covers the mechanical disciplines of drafting and design. The CAD courses are taught in state-of-the-art facilities featuring the latest release of SolidWorks. Employment opportunities exist in large and small industries. Graduates can advance into positions such as designers, associate engineers, inspectors, supervisors, sales, and purchasing personnel.

Revised: 08/01/2012
Implementation: Spring 2013
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 Technical Communication, 3 cr
   OR
   ENGL 1117, Reading and Writing Critically I, 4 cr

B. Other General Education Electives................................................................. 7 cr
   MATH 1015 (or higher), Applied Technical Math, 3 cr
   Four credits of any course other than CAD, 4 cr

II. Professional or Technical Credits ........................................................................... 58 Credits
   CAD 1039, 3D CAD, 4 cr
   CAD 1120, Welding Technology, 2 cr
   CAD 1123, Technical Illustration, 2 cr
   CAD 1145, Mfg Mat'l and Processes I, 3 cr
   CAD 1147, Mfg Mat'l and Processes II, 3 cr
   CAD 1150, CAD Data Communications, 3 cr
   CAD 1200, Product Data Management, 1 cr
   CAD 1220, Engineering Drafting, 3 cr
   CAD 1221, Technical Drafting, 3 cr
   CAD 1222, Dimensioning and Tolerancing, 2 cr
   CAD 1323, Basic Dimensioning, 3 cr
   CAD 2323, Advanced Dimensioning, 3 cr
   CAD 2324, Special Projects I, 2 cr
   CAD 2358, Machine Design, 5 cr
   CAD 2400, Reverse Engineering and Rapid Prototyping, 2 cr
   CAD 2424, Special Projects II, 2 cr
   CAD 2335, Working Drawings & Design, 3 cr
   CAD 2430, Special Fields of Drafting, 2 cr
   CAD 2440, CAD Portfolio, 2 cr
   CAD 2458, Product Design, 5 cr
   CAD 2460, Surfacing and Advanced Modeling, 3 cr

TOTAL ........................................................................................................................................... 68 Credits

PURPOSE: The CAD Technology major is designed to prepare students for a technical career using Computer Aided Drafting tools and techniques. CAD drafters turn concepts, ideas, and rough sketches into mechanical prints then “prototypes” or finished parts can be fabricated, designed or repaired. The curriculum primarily covers the mechanical disciplines of drafting and design. The CAD courses are taught in state-of-the-art facilities featuring the latest release of SolidWorks. Employment opportunities exist in large and small industries. Graduates can advance into positions such as designers, associate engineers, inspectors, supervisors, sales, and purchasing personnel. Revised: 07/01/2012; Implementation: Spring 2013
Cancer Registry Management

Career/Program Overview

This program is 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 (26 credits) are offered for the cancer tumor registrar certificate:

- 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

A Cancer Registry Management AAS degree is pending MnSCU approval at this time.

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 severe 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.

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.

Accreditation/Articulations

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

Rochester Community and Technical College is 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: http://www.rctc.edu/program/crm
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
CANCER REGISTRY MANAGEMENT
Certificate

I. Professionally Related Program 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

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
- Cancer Registry Management Program
  Application http://www.rctc.edu/program/hit/documents/MicrosoftWord-HIMC_Admission_Application_Form.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

Program Accreditation: The Rochester Community and Technical College Cancer Registry Management Program is accredited by the National Cancer Registry Association (NCRA).

Revised: 04/12/2016
Implementation: Fall 2016
CANCER REGISTRY MANAGEMENT
Associate in Applied Science

I. MN Transfer Curriculum (MnTC) General Education Requirements ………minimum of 17 Credits
   Goal 1: Written and Oral Communication .............................................................. 10 cr
   ENGL 1109, Introduction to 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 & 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: The Humanities—the Arts, Literature, Philosophy ................................ 3 cr
   PHIL 1135, Bioethics, 3 cr (Recommended)

II. Professionally Related Business Requirements .....................................................43 Credits
   BTEC 1620, Introduction to Medical Terminology, 3 cr
   BTEC 1015, Essential Computer Application, 2 cr
   BTEC 2870, Employment Strategies, 1 cr
   HIMC 1840, Introduction to Health Records, 3 cr
   HIMC 1850, Computerized Health Information, 3 cr
   HIMC 2600, Human Diseases for Health Professionals, 3 cr
   HIMC 2610, Pharmacology for Health Professionals, 2 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

TOTAL ..........................................................................................................................60 Credits

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

To be admitted to the program, students must meet admission criteria and complete two (2) applications and return them to RCTC Admissions and Records:
- RCTC Application for admission: www.rctc.edu/admissions/html/application_form.html
- Program Application: http://www.rctc.edu/program/crm/pdfs/HIMCCancerAdmissionApplicationForm.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.

Implementation: Spring 2017
Cardiovascular Invasive Specialist

Career/Program Overview

RCTC’s Cardiovascular Invasive Specialist (CVIS) program trains students to work in collaboration with and under the supervision of physicians to assist with the preparation and to perform diagnostic and therapeutic invasive 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

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

Program Start Date(s)

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

The CVIS program is 63 credits and can be completed in as little as 21 months. During the first two semesters at RCTC, students will take general education and CVIS coursework. All additional coursework will be completed at Mayo Medical Center – St. Mary’s Hospital campus.

Career Opportunities/Information

Starting wages for the CVIS graduate are approximately $23-$33 per hour or an average of $46,500 + annually. Wages can vary depending on the employer and geographic area.

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

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

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

Accreditations/Articulations

The Cardiovascular Invasive Specialist Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Joint Review Committee on Education in Cardiovascular Technology (JRC–CVT).

Rochester Community and Technical College and Mayo Clinic College of Medicine are both 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/

Program Advisors

Lee D. Meyer, RN, Mayo, Program Director at 507-255-0394 or meyer.lee@mayo.edu
Safawo Gullo, Ph.D., RCTC Program Advisor, at 507-280-2816 or safawo.gullo@rctc.edu

Additional Information

Program Website: http://www.mayo.edu/mshs/careers/cardiovascular-invasive-specialist/cardiovascular-invasive-specialist-minnesota
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact/
I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ............... 22 Credits
   Goal 1: Written and Oral Communication ...................................................... 4 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ........................................................................ 15 cr
   CHEM 1117, General Chemistry, 4 cr
   BIOL 1217, 1218, Anatomy and Physiology I & II, 8 cr
   PHYS 1103, Principles of Physics, 3 cr

   Goal 6: Humanities – the Arts, Literature, and Philosophy ..................... 3 cr
   Recommended: PHIL 1135, Bioethics, 3 cr
   OR PHIL 1125, Ethics, 3 cr

II. Mayo CVIS Core Requirements .................................................................. 41 Credits
   YEAR 1: August – May (All courses are Mayo courses).
   CVIS 1010, Introduction to Cardiology, 2 cr
   CVIS 1020, Introduction to Electrocardiography, 2 cr

   YEAR 2: June - May
   CVIS 2010, Cardiovascular Physiology & Pathophysiology, 4 cr
   CVIS 2020, Invasive Cardiology I, 5 cr

   CVIS 2030, Cardiovascular Pharmacology, 2 cr
   CVIS 2021, Invasive Cardiology II, 6 cr
   CVIS 2040, Clinical, 6 cr

   CVIS 2060, Diagnostic Imaging and Fluoroscopy, 2 cr

   CVIS 2070, Internship, 12 cr

TOTAL ............................................................................................................. 63 Credits
REGISTERED CARDIOVASCULAR INVASIVE SPECIALIST COURSE SEQUENCE

LENGTH: 21 months

<table>
<thead>
<tr>
<th>Fall Semester (RCTC &amp; Mayo)</th>
<th>Spring Semester (RCTC &amp; Mayo)</th>
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<tbody>
<tr>
<td>BIOL 1217 4 cr</td>
<td>BIOL 1218 4 cr</td>
</tr>
<tr>
<td>CHEM 1117 4 cr</td>
<td>ENGL 1117 4 cr</td>
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<tr>
<td>PHYS 1103 3 cr</td>
<td>PHIL 1125/1135 3 cr</td>
</tr>
<tr>
<td>CVIS 1010 2 cr</td>
<td>CVIS 1020 2 cr</td>
</tr>
<tr>
<td><strong>Total</strong> 13 cr</td>
<td><strong>Total</strong> 13 cr</td>
</tr>
</tbody>
</table>

**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

**Total (Year 2) 37 cr**

**Clinical Hours = 64 hours = 1 semester credit**

**ADDITIONAL NOTES:**

**Purpose:** This program educates graduates to work in collaboration and under the supervision of physicians to assist with the preparation and to perform diagnostic and therapeutic invasive cardiology procedures. The technologist must have the technical skills and competence to assist with these invasive procedures. Invasive cardiovascular procedures are performed in a clinical cardiovascular laboratory environment.

The areas of study are cardiovascular anatomy and physiology, cardiovascular pathophysiology, electrocardiography, cardiovascular pharmacology, diagnostic angiography, interventional angiography, electrophysiology, cardiac pacing, cardiovascular hemodynamics, valvular assessment, pediatric/congenital heart disease assessment, cardiac/coronary physiology assessment, x-ray and radiation safety, and instrumentation and electronics associated with the cardiac laboratory environment.
Cardiovascular anatomy and physiology and pathophysiology concentrate on the structures, functions, and disease processes of the heart. Angiography and interventional cardiology concentrate on the specific entities of coronary anatomy and treatment(s) for various disease entities of the heart. The cardiac electrical system and its diagnosis and treatment(s) are the areas concentrated on in electrophysiology and cardiac pacing. Advanced cardiac assessment (i.e.: hemodynamics, coronary physiology, cardiac valve study, congenital heart disease, etc.) concentrate on in-depth cardiovascular anatomical and physiological data. Instrumentation, electronics, and x-ray basics concentrate on the radiation and electrical processing and safety in the clinical cardiovascular laboratory setting.

**Admission:** Students are admitted into this program through the Mayo School of Health Sciences Cardiovascular Invasive Specialist Program. The application for admission to the CVIS Program, Mayo School of Health Sciences must be obtained online (http://www.mayo.edu/mshs/cis-cis-application.html) or from the Mayo School of Health Sciences and submitted no later than March 1. Following appointment to the program by the Mayo School of Health Sciences, students must apply to RCTC. **Admission is competitive. It is based on previous education, work experience, goal statement, letters of reference, and an interview.** Science and math courses must be completed within the previous five years.

**Program Entrance Requirements:** (1) High School diploma or the equivalent; (2) Basic computer competence or keyboarding; (3) High School biology and chemistry are required, High School physics is recommended, or completion of the RCTC or college transfer equivalents; (4) High School algebra II and placement at an algebra course beyond this class on a college placement test or completion of RCTC MATH 0099 or the equivalent; (5) graduation in the upper one-half of the high school graduating class with a 2.75 GPA or better. The science and math prerequisites must be taken within the past five years prior to application. (6) College level reading skills and writing readiness as tested by ASAP or prior college course work; (7) Proof of completion of a CPR course is required prior to beginning CVIS 1010 and must be current through either the American Heart Association Cardiopulmonary Resuscitation & Emergency Cardiac Care for Health Care Provider.

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

Revised: 11/11/2014
Implementation: Fall 2015
Carpentry

Career/Program Overview

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

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

Curriculum-at-a-Glance

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

Program/Degree Options

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

Program Start Date(s)

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

Career Opportunities/Information

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

Gainful Employment Programs

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.

Articulations/Accreditations

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

I. Professional Program-Related Courses .................................................................32 Credits
CR 1600, Carpentry Theory I, 3 cr
CR 1610, Residential Blueprint Reading, 2 cr
CR 1612, Shop Practice I, 2 cr
CR 1622, Carpentry Theory 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

COURSE SEQUENCE:

FALL SEMESTER                        SPRING SEMESTER
CR 1600, 3 cr     CR 1622, 3 cr
CR 1610, 2 cr     CR 1632, 3 cr
CR 1612, 2 cr     CR 1635, 2 cr
CR 1637, 2 cr     CR 1636, 4 cr
CR 1623, 5 cr     CR 1625, 2 cr
CR 1627, 2 cr     CR 1638, 2 cr
TOTAL 16 cr     TOTAL 16 cr

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

PURPOSE: The Carpentry major is designed to prepare students for careers as carpenters in residential and commercial construction, factories, cabinet shops, and building maintenance fields. Instruction includes courses in theory and shop practice in the proper uses of hand and power tools and machines, building footings and foundations, site layout, rough framing, exterior and interior finishing, blueprint reading, and cost estimating. The primary activity of the program is the building of a house. This house building experience includes laying out the house on the lot, building the footing forms, rough framing, shingling the roof, insulating, hanging the drywall, and trimming out the house. About two-thirds of the instruction is spent in the lab working on “mock-ups” or at the job site working on the house. Job opportunities exist with independent homebuilders, commercial contractors, lumberyards, furniture manufacturers, and cabinet making shops. Graduates typically start as entry-level carpenters. With further education and work experience, they can become journeyman carpenters, foremen, or may start their own business.

Revised: 03/01/2012
Chemical Health Assistant

Career/Program Overview

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

The program provides individuals with practical training in mental health, chemical health, and disabilities fields. Individuals may also enter the program to continue their education, to gain knowledge of new developments and techniques, or to obtain career advancement. 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.

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.

Articulations/Articulations

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

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

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

Additional Information

Program Website: http://www.rctc.edu/program/hs/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
HUMAN SERVICES TECHNICIAN:
Chemical Health Assistant
Certificate

I. RCTC General Education: Allied Studies .................................................................................. 1 Credit

    HLTH 1109, Community CPR/First Aid & Safety, 1 cr

II. Major Requirements ............................................................................................................... 10 Credits

    NA 1500, Nursing Assistant Theory and Clinical, 3 cr
    HS 1511, Medication Administration for Unlicensed Personnel, 2 cr
    HS 1560, Chemical Dependency, 2 cr
    HS 1565, Chemical Health Field Experience, 3 cr

TOTAL ........................................................................................................................................... 11 Credits

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: 02/24/2010
Child Development and Child, Youth, and Family Studies

Career/Program Overview

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

Curriculum-at-a-Glance

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

Program/Degree Options

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

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

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

Program Start Date(s)

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

Career Opportunities/Information

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

Gainful Employment Programs

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.

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/cd/ Program Plan: http://www.rctc.edu/catalog/programs/ More Information: http://www.rctc.edu/contact/
CHILD DEVELOPMENT
Certificate

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements…………….4 Credits
   ENGL 1117, Reading and Writing Critically I, 4 cr

II. Professional Program-Related Courses...........................................................15 Credits
   CYFS 1001, Seeing Children and Youth, 3 cr
   CYFS 1210, Child Growth and Youth Development, 3 cr
   CYFS 1220, Health, Safety, Nutrition, 3 cr
   CYFS 1232, Guidance and Group Dynamics, 3 cr
   CYFS 1235, Learning and Environments, 3 cr

III. Electives...........................................................................................................3 Credits

TOTAL ...................................................................................................................22 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Purpose: The Child Development Certificate Program prepares students for assistant teacher or child care aid positions. Students graduating from this program meet the Minnesota Department of Human Services (DHS) requirements for assistant teachers in child care centers. In addition to these education requirements, DHS Rule 3 requires 2080 hours of work experience as a supervised aide or volunteer in order to be hired as an assistant teacher. Graduates of the program may seek further education to earn a degree in early childhood education or take further courses to improve their earning potential and job position.

Revised: 07/01/2012
Implementation: Fall 2012
CHILD DEVELOPMENT
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements...................4 Credits
   ENGL 1117, Reading and Writing Critically I, 4 cr

II. Professional Program-Related Courses.........................................................................25 Credits
   CYFS 1001, Seeing Children and Youth, 3cr
   CYFS 1210, Child Growth and Youth Development, 3 cr
   CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
   CYFS 1232, Guidance and Group Dynamics, 3 cr
   CYFS 1235, Learning and Environments, 3 cr
   CYFS 1310, Infant/Toddler Principles and Practices, 4 cr
   OR
   CYFS 1312, Preschool Principles and Practice, 4 cr
   OR
   CYFS 1314, School-Age Principles and Practice, 4 cr
   OR
   CYFS 2241, Experiential Learning, 4 cr
   CYFS 1320, Observing and Assessing, 3 cr
   CYFS 2810, Practicum I, 3 cr

III. Electives...............................................................................................................................3 Credits

TOTAL ......................................................................................................................................32 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Purpose: The Child Development Careers major is designed to provide students with a comprehensive, basic curriculum needed to work in careers with children from infancy to twelve years of age in a variety of settings. Opportunities to gain necessary child care skills and competencies are provided by way of observation and practical experience in a well-equipped, on-site child development center for children ages 2-5, as well as classroom lecture/labs and practical experiences in community-based care facilities. Upon graduation students will be directly involved with the guidance and provision of educational/creative experiences appropriate to nursery schools, special education programs, Head Start, elementary schools, or as a provider of in-home care (nanny), or as a licensed family child care provider. A child development assistant also works directly with other trained staff and/or parents. Graduates of the program may seek further education to earn a degree in early childhood education or take further courses to improve their earning potential and job position.
Revised: 07/01/2012; Implementation: Fall 2012
I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ...............16 Credits
   Goal 1: Written and Oral Communication ..................................minimum of 4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MnTC 1-10 GOALS

   Goal 3: Natural Sciences
   Three credits from MnTC Goal 3
   OR
   Goal 4: Mathematics/Logical Reasoning ....................................minimum of 3 cr
   Three credits from MnTC Goal 4

   Goal 5: History and Social and Behavioral Sciences...................minimum of 3 cr
   Three credits from MnTC Goal 5

   Goal 6: The Humanities – The Arts, Literature and Philosophy..minimum of 3 cr
   Three credits from MnTC Goal 6

   MnTC Electives…………………….………………………………………………3 cr
   Any course that meets MnTC requirements

II. Professional Core..............................................................................................................41 Credits
   CYFS 1001, Seeing Children and Youth, 3cr
   CYFS 1210, Child Growth and Youth Development, 3 cr
   CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
   CYFS 1232, Guidance and Group Dynamics, 3 cr
   CYFS 1235, Learning and Environments, 3 cr
   CYFS 1320, Observing and Assessing, 3 cr
   CYFS 2101, Child and Youth Issues, 4 cr
   CYFS 2600, Professional Leadership, 3 cr
   CYFS 2630, Children and Youth with Special Needs, 3 cr
   CYFS 2640, Program Planning, 3 cr
   CYFS 2810, Practicum I, 3 cr
   CYFS 2840, Practicum II, 3 cr

   Choose one of the following methods courses:
   CYFS 1310, Infant/Toddler Principles and Practices, 4 cr OR
   CYFS 1312, Preschool Principles and Practices, 4 cr OR
   CYFS 1314, School-Age Principles and Practices, 4 cr OR
   CYFS 2241, Experiential Learning, 4 cr
III. Program Electives................................................................................................................3 Credits

Choose from:
CYFS 2002, Introduction to Youth Work, 3 cr
CYFS 2540, Supporting Children’s Mental Health, 3 cr OR
CYFS 2570, Multicultural Learning Experiences, 3 cr OR
CYFS 2580 Creative Development Experiences, 3 cr

TOTAL......................................................................................................................................60 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities.

A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Revised: 07/01/2012
Implementation: Spring 2013
CHILD, YOUTH, AND FAMILY STUDIES
Associate in Applied Science with an Emphasis in Diversity

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ...............16 Credits
   Goal 1: Written and Oral Communication ................................minimum of 4 cr
      ENGL 1117, Reading and Writing Critically I, 4 cr
   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS
   Goal 3: Natural Sciences
      Three credits from MnTC Goal 3
   OR
   Goal 4: Mathematics/Logical Reasoning ................................minimum of 3 cr
      Three credits from MnTC Goal 4
   Goal 5: History and Social and Behavioral Sciences...................minimum of 3 cr
      Three credits from MnTC Goal 5
   Goal 6: The Humanities – The Arts, Literature and Philosophy..minimum of 3 cr
      Three credits from MnTC Goal 6
   MnTC Electives…………………….………………………………………………3 cr
      Any course that meets MnTC requirements

II. Professional Core..............................................................................................................31 Credits
    CYFS 1001, Seeing Children and Youth, 3 cr
    CYFS 1210, Child Growth and Youth Development, 3 cr
    CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
    CYFS 1232, Guidance and Group Dynamics, 3 cr
    CYFS 1235, Learning and Environments, 3 cr
    CYFS 1320, Observing and Assessing, 3 cr
    CYFS 2101, Child and Youth Issues, 4 cr
    CYFS 2600, Professional Leadership, 3 cr
    CYFS 2810, Practicum I, 3 cr
    CYFS 2840, Practicum II, 3 cr

III. Emphasis in Diversity..........................................................................................................9 Credits
    CYFS 2570, Multicultural Learning Experiences, 3 cr
    CYFS 2640, Curriculum Planning, 3 cr

    Choose one of the following:
    COMM 2100, Intercultural Communication, 3 cr
    HUM 1190, Native American Studies, 3 cr
IV. Program Electives ......................................................................................................................................................4 Credits

Choose one of the following:
CYFS 1310, Infant Toddler Principles and Practices, 4 cr
CYFS 1312, Preschool Principles and Practices, 4 cr
CYFS 1314, School-Age Principles and Practices, 4 cr

TOTAL .............................................................................................................................................................................60 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities.

A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Revised: 07/01/2012
Implementation: Spring 2013
CHILD, YOUTH, AND FAMILY STUDIES
Associate in Applied Science with an Emphasis in Inclusion and Special Needs

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ..........16 Credits
   Goal 1: Written and Oral Communication ...........................................minimum of 4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences
   Three credits from MnTC Goal 3
   OR
   Goal 4: Mathematics/Logical Reasoning ..............................................minimum of 3 cr
   Three credits from MnTC Goal 4

   Goal 5: History and Social and Behavioral Sciences.................................minimum of 3 cr
   Three credits from MnTC Goal 5

   Goal 6: The Humanities – The Arts, Literature and Philosophy..minimum of 3 cr
   Three credits from MnTC Goal 6

   MnTC Electives.................................................................................................3 cr
   Any course that meets MnTC requirements

II. Professional Core............................................................................................31 Credits
   CYFS 1001, Seeing Children and Youth, 3 cr
   CYFS 1210, Child Growth and Youth Development, 3 cr
   CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
   CYFS 1232, Guidance and Group Dynamics, 3 cr
   CYFS 1235, Learning and Environments, 3 cr
   CYFS 1320, Observing and Assessing, 3 cr
   CYFS 2101, Child and Youth Issues, 4 cr
   CYFS 2600, Professional Leadership, 3 cr
   CYFS 2810, Practicum I, 3 cr
   CYFS 2840, Practicum II, 3 cr

III. Emphasis in Inclusion and Special Needs.....................................................10 Credits
   CYFS 2540, Supporting Children’s Mental Health, 3 cr
   CYFS 2630, Children and Youth With Special Needs, 3 cr
Choose one of the following:
CYFS 1310, Infant/Toddler Principles and Practices, 4 cr
CYFS 1312, Preschool Principles and Practices, 4 cr
CYFS 1314, School-Age Principles and Practices, 4 cr
CYFS 2241, Experiential Learning, 4 cr

IV. Program Electives ........................................................................................................................................3 Credits

Choose one of the following:
CYFS 2002, Introduction to Youth Work, 3 cr OR
CYFS 2570, Multicultural Learning Experiences, 3 cr OR
CYFS 2580, Creative Development Experiences, 3 cr OR
CYFS 2640, Curriculum Planning, 3 cr

TOTAL ............................................................................................................................................................60 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities.

A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Revised: 03/05/2014
Implementation: Fall 2014
CHILD, YOUTH, AND FAMILY STUDIES
Associate in Applied Science with an Emphasis in Youth Studies

I.  Minnesota Transfer Curriculum (MnTC) General Education Requirements ...............15 Credits
   Goal 1: Written and Oral Communication ..................................minimum of 4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences
   Three credits from MnTC Goal 3
   OR
   Goal 4: Mathematics/Logical Reasoning ....................................minimum of 3 cr
   Three credits from MnTC Goal 4

   Goal 5: History and Social and Behavioral Sciences...................minimum of 3 cr
   Three credits from MnTC Goal 5

   Goal 6: The Humanities – The Arts, Literature and Philosophy..minimum of 3 cr
   Three credits from MnTC Goal 6

   MnTC Electives…………………….………………………………………………2 cr
   Any course that meets MnTC requirements

II.  Professional Core..............................................................................................................31 Credits
   CYFS 1001, Seeing Children and Youth, 3 cr
   CYFS 1210, Child Growth and Youth Development, 3 cr
   CYFS 1220, Child Safety, Health, & Nutrition, 3 cr
   CYFS 1232, Guidance and Group Dynamics, 3 cr
   CYFS 1235, Learning and Environments, 3 cr
   CYFS 1320, Observing and Assessing, 3 cr
   CYFS 2101, Child and Youth Issues, 4 cr
   CYFS 2600, Professional Leadership, 3 cr
   CYFS 2810, Practicum I, 3 cr
   CYFS 2840, Practicum II, 3 cr

III. Emphasis in Youth Studies.........................................................................................11 Credits
   CYFS 1314, School Age Principles and Practices, 3 cr
   CYFS 2002, Introduction to Youth Work, 4 cr
   CYFS 2241, Experiential Learning, 4 cr

IV. Program Electives................................................................................................................3 Credits
Choose one of the following:
CYFS 2640, Curriculum Planning, 3 cr
CYFS 2630, Children and Youth With Special Needs, 3 cr

TOTAL......................................................................................................................................60 Credits

Notice of Minnesota Background Check Requirement
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A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Revised: 07/01/2012
Implementation: Spring 2013
Clinical Neurophysiology Technology

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

Program/Degree Options
This program is jointly offered by RCTC and Mayo Clinic. Applications can be obtained from Mayo School of Health Sciences at http://www.mayo.edu/mshs/careers/clinical-neurophysiology-technology/clinical-neurophysiology-technology-program-minnesota.

Students are admitted through the Mayo School of Health Sciences.

The Clinical Neurophysiology Technology program is an Associate in Applied Science (AAS) degree that consists of 81 credits and is 24-months in length. Upon completion of the degree, Mayo will also award a Certificate of Completion. Graduates are eligible to take professional certification examinations given by Neurodiagnostic Credentialing and Accreditation (ABRET), American Association of Electrodagnostic 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)
General course work can be started any semester. In order to complete the program in 24 months, students must start the CNT program and related coursework fall semester

Career Opportunities/Information
Career opportunities for 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 $46,000. Salary is dependent upon location and employer.

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

The Clinical Neurophysiology Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Committee on Accreditation for Education in Neurodiagnostic Technology.

Commission on Accreditation of Allied Health Education Programs
25400 US Highway 19 N., Suite 158
Clearwater, FL 33763
727-210-2350
www.caahep.org

See accreditation information for Mayo Clinic College of Medicine.

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

Additional Information
Program Website: http://www.mayo.edu/mshs/careers/clinical-neurophysiology-technology/clinical-neurophysiology-technology-program-minnesota
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact
CLINICAL NEUROPHYSIOLOGY TECHNOLOGY

Associate in Applied Science
An Affiliated Program with the Mayo School of Health Sciences

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements……..25 Credits

Goal 1: Written and Oral Communication ................................................ 7 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Public Speaking, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .................................................................12 cr
CHEM 1101, Elements of Chemistry, 3 cr
BIOL 1110, Human Biology, 4 cr
BIOL 1216, Anatomy & Physiology of the Nervous & Respiratory Systems, 2 cr
PHYS 1103, Principles of Physics, 3 cr

Goal 5: History and the Social and 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
TOTAL 22 cr

Months 13-24
CNT 2211 Neurophysiology Lecture Series, Part II 4 cr
CNT 2220 Clinical Practice EEG I** 3 cr
CNT 2221 Clinical Practice EEG II** 3 cr
CNT 2222 Clinical Practice EEG III*** 3 cr
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
TOTAL  16 cr

**Spring Semester, Year 1 (RCTC and Mayo)**
BIOL 1216  Anatomy & Physiology of the Nervous System  2 cr
ENGL 1117  Reading & Writing Critically I  4 cr
PSYC 1611  Psychology of Adjustment  3 cr
or PSYC 2618  General Psychology  4 cr
COMM 1114  Fundamentals of Public Speaking  3 cr
CNT 1102  CNT Techniques EEG  2 cr
CNT 1103  CNT Techniques NCS  2 cr
CNT 1110  CNT Instrumentation  2 cr
TOTAL  18 cr

**Summer Semester (Mayo)**
CNT 1104  CNT Techniques EP  2 cr
CNT 1105  CNT Techniques Autonomic  2 cr
CNT 1106  CNT Techniques PSG  2 cr
CNT 1112  Applied Concepts I  2 cr
CNT 1113  Applied Concepts II  2 cr
CNT 1114  Orientation to the Clinical Laboratory  2 cr
CNT 2210  Neurophysiology Lecture Series, Part I  1 cr
TOTAL  13 cr
**YEAR 2** These courses will be taken during the Fall, Spring, and Summer Semesters at Mayo
Months 13-24

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<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<td>Neurophysiology Lecture Series, Part II</td>
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<td>Clinical Practice EEG I**</td>
<td>3 cr</td>
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<td>CNT 2221</td>
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<td>Clinical Practice EEG III**</td>
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<td><strong>34 cr</strong></td>
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**Clinical Hours:** 64 hours = 1 semester credit

**ADDITIONAL NOTES:**

**Purpose:** This program educates graduates to work under the supervision of physicians to perform tests that assist physicians in the diagnosis and evaluation of diseases of the brain, peripheral and autonomic nervous system and disorders of sleep and wakefulness. The technologist must be able to analyze data online making certain that it is viable and interpretable. Neurodiagnostic studies are performed in a laboratory, emergency room, operating room, intensive care unit, special monitoring units or at the patient’s bedside.

The areas of study are electroencephalography, nerve conduction studies, polysomnography, autonomic testing and evoked potentials. Electroencephalography, spontaneous electrical activity of the brain recorded from the scalp, can determine changes in brain activity useful in diagnosing brain disorders. Nerve conduction studies, stimulus-induced responses recorded from peripheral nerves and muscles in the face, arms or legs, test to see how fast and how well the nerves send messages. Polysomnography, spontaneous activity recorded from the lungs, brain, muscle and heart, diagnosis and treats sleep-related disorders such as narcolepsy and sleep apnea. Autonomic testing measures involuntary nervous system function that controls blood pressure, heart rate, sweating and influence pain. Evoked potentials, stimulus induced responses from the sensory system, measures central nerve conduction time in disorders such as multiple sclerosis.

**Admission:** Students are admitted into the Clinical Neurophysiology Technology Program through the Mayo School of Health Sciences. The application for admission is online and must be obtained from the Mayo School of Health Sciences and submitted no later than **February 1**. The online application may be accessed at [http://www.mayo.edu/mshs/careers/clinical-neurophysiology-technology/clinical-neurophysiology-technology-program-minnesota](http://www.mayo.edu/mshs/careers/clinical-neurophysiology-technology/clinical-neurophysiology-technology-program-minnesota). Following appointment to the program by the Mayo School of Health Sciences, students must apply to RCTC. Admission is competitive. It is based on previous education, work experience, goal statement, letters of reference, and interview.
**Program Entrance Requirements:**

**Prerequisites**

**High School Graduate**
- **Required:** High school diploma (equivalent acceptable) or be a high school senior who expects to graduate by the time the program begins.
- **Preferred:** Graduated in the upper one-half of the high school graduating class with a 2.8 GPA or higher.
- **Preferred:** ACT scores to submit with your application.

**Program Entrance Requirements, continued:**

**Biology** and **Chemistry** 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.

**Job Shadow**
- **Required:** Contact Jan W. Buss at 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.
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 and an Associate in Applied Science Degree by RCTC.

Revised: 12/22/2015
Implementation: Spring 2015
Coaching

Career/Program Overview

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

Curriculum-at-a-Glance

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

Program/Degree Options

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

* All have Certificate and Diploma options

Program Start Date(s)

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

Career Opportunities/Information

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

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

Gainful Employment Programs

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.

Accreditations/Articulations

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

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

Additional Information

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

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements……………..4 Credits
   MNTC Goal Area 3 – Choose from one of the following:
   BIOL 1107, Fundamentals of Anatomy and Physiology, 4 cr
   BIOL 1110, Human Biology, 4 cr
   BIOL 1217, Anatomy and Physiology I, 4 cr

II. Professional Core Requirements……………………………………………………………..…………23-24 Credits
   HLTH 1114, Responding to Emergencies, 3 cr
   PHED 2249, Prevention and Care of Athletic Injuries I, 3 cr
   PHED 2253, Sport Nutrition for Performance, 3 cr
   PHED 2252, Sport Psychology, 3 cr
   PHED 2261, Officiating Principles, 3 cr
   PHED 2271, Coaching Principles, 3 cr
   PHED 2270, Intro to Physical Education, 2 cr
   OR
   PHED 2280, Introduction to Sports Facility Management, 3 cr
   PHED 2295, Sport Internship I, 3 cr

III. Electives……………………………………………………………………………………………3-4 Credits
   Choose minimum of one:
   PHED 2260, Basketball Officiating, 1 cr
   PHED 2272, Techniques of Coaching Football, 1 cr
   PHED 2273, Techniques of Coaching Volleyball, 1 cr
   PHED 2274, Techniques of Coaching Basketball, 1 cr
   PHED 2275, Techniques of Coaching Baseball, 1 cr
   PHED 2276, Techniques of Coaching Softball, 1 cr
   PHED 2277, Techniques of Coaching Soccer, 1 cr
   PHED 2278, Techniques of Coaching Wrestling, 1 cr
   Choose minimum of one:
   PHED 1122, Circuit Training, 1 cr
   PHED 1132, Speed and Power Running, 1 cr
   PHED 1133, Strength Training for Men and Women, 1 cr
   PHED 1189, Boot Camp, 1 cr
   PHED 1190, Strength, Agility and Quickness Training for Football Athletes, 1 cr
   PHED 1191, Strength, Agility and Quickness Training for Volleyball/Soccer Athletes, 1 cr
   PHED 1192, Strength, Agility and Quickness Training for Basketball Athletes, 1 cr
   PHED 1193, Strength, Agility and Quickness Training for Wrestling Athletes, 1 cr
   PHED 1194, Strength, Agility and Quickness Training for Baseball/Softball Athletes, 1 cr
   PHED 2180, Critical Analysis of Football, 1 cr

Total………………………………………………………………………………………………………31 Credits
Revised: 03/18/2016; Implementation: Fall 2016
COACHING Certificate

I. Professional Core Requirements...............................................................8 Credits
   HLTH 1110, CPR/AED for The Professional Rescuer, 1 cr
   PHED 2249, Prevention and Care of Athletic Injuries I, 3 cr
   PHED 2271, Coaching Principles, 3 cr
   PHED 2297, Field Observation for Coaching, 1 cr

III. Electives .............................................................................................................2 Credits
   Choose minimum of one:
   PHED 2260, Basketball Officiating, 1 cr
   PHED 2272, Techniques of Coaching Football, 1 cr
   PHED 2273, Techniques of Coaching Volleyball, 1 cr
   PHED 2274, Techniques of Coaching Basketball, 1 cr
   PHED 2275, Techniques of Coaching Baseball, 1 cr
   PHED 2276, Techniques of Coaching Softball, 1 cr
   PHED 2277, Techniques of Coaching Soccer, 1 cr
   PHED 2278, Techniques of Coaching Wrestling, 1 cr

   Choose minimum of one:
   PHED 1122, Circuit Training, 1 cr
   PHED 1132, Speed and Power Running, 1 cr
   PHED 1133, Strength Training for Men and Women, 1 cr
   PHED 1189, Boot Camp, 1 cr
   PHED 1190, Strength, Agility and Quickness Training for Football Athletes, 1 cr
   PHED 1191, Strength, Agility and Quickness Training for Volleyball/Soccer Athletes, 1 cr
   PHED 1192, Strength, Agility and Quickness Training for Basketball Athletes, 1 cr
   PHED 1193, Strength, Agility and Quickness Training for Wrestling Athletes, 1 cr
   PHED 1194, Strength, Agility and Quickness Training for Baseball/Softball Athletes, 1 cr
   PHED 2180, Critical Analysis of Football, 1 cr

Total.......................................................................................................................10 Credits

Revised: 03/18/2016
Implementation: Fall 2016
Coding Specialist

Career/Program Overview

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 Certificate, the Coding Specialist diploma, and the HIT AAS degree can all be completed entirely online.

Program Start Date(s)

Students can start HIT coursework any semester.

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.

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.

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.

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

Additional Information

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

I. Professionally Related Business 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

NOTE: PREREQUISITES: 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 and complete two (2) applications and
return them to RCTC Admissions and Records:

- Program application: http://www.rctc.edu/program/hit/documents/MicrosoftWord-HIMC_Admission_Application_Form.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

Revised: 01/14/2016
Implementation: Fall 2016
Communication Studies

Career/Program Overview

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 an applicant 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. Some courses are not 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.

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.

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/comm
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact
COMMUNICATION STUDIES
Certificate

I. 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

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
Community Health Worker

Career/Program Overview

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

Curriculum-at-a-Glance

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

Program/Degree Options

RCTC’s Community Health Worker program is a 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 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 at residential care facilities to help the elderly make appointments, coordinate referrals and follow medication instructions. Workers will also be needed at community-based and independent-living sites to assist the homeless, the mentally and physically disabled and those in substance abuse programs.

Gainful Employment Programs

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.

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/
COMMUNITY HEALTH WORKER
Certificate

I. CHW Core Requirements ........................................................................................................ 14 Credits
   CHW 1000, Community Health Worker Role: Advocacy and Outreach, 2 cr
   CHW 1010, Communication Skills and Cultural Competence, 2 cr
   CHW 1020, Community Health Worker’s Role in Teaching and Capacity Building, 2 cr
   CHW 1030, Organization and Resources: Community and Personal Strategies, 1 cr
   CHW 1040, Community Health Worker: Coordination, Documentation & Reporting, 1 cr
   CHW 1050, Community Health Worker: Legal and Ethical Responsibilities, 1 cr
   CHW 1060, Community Health Worker: Internship (96 hours), 2 cr

II. Required Electives .............................................................................................................. 2-3 Credits

   Choose from the following electives:
   BTEC 1020, Keyboarding for Computers, 1 cr
   FYEX 1000, College Success Strategies, 1 cr
   COMM 1130, Interpersonal Communication, 3 cr

   TOTAL .................................................................................................................................... 16-17 Credits

Course Prerequisites:
1) CHW 1000 • Placement in READ 0900.
2) CHW 1010 • Successful completion of CHW 1000.
3) CHW 1020 • CHW 1000, and CHW 1010.
4) CHW 1030 • CHW 1000, CHW 1010, and CHW 1020.
5) CHW 1040 • CHW 1000, CHW 1010, CHW 1020, and CHW 1030.
6) CHW 1050 • CHW 1000, CHW 1010, CHW 1020, CHW 1030, and CHW 1040.
7) CHW 1055 • CHW 1000, CHW 1010, CHW 1020, CHW 1030, and CHW 1040.
8) CHW 1060 • CHW 1000, CHW 1010, CHW 1020, CHW 1030, CHW 1040, CHW 1050 and CHW 1055.

PURPOSE: The Community Health Worker performs a broad range of health related functions and plays an important role in bridging the gap between cultures and healthcare systems. A Community Health Worker interacts with health care organizations to increase cultural competence, improve access to health care for racial and ethnic minorities, improve the quality of care for the chronically ill, promote healthy communities, and educate families about access to and use of health care coverage.

Revised: 01/12/2012
Computer Information Systems / Computer Science / Computer Programming Skills

Career/Program Overview

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, an AS in Bioinformatics Foundations and a certificate in Computer Programming Skills.

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). The Computer Programming Skills certificate is 16 credits and consists of five courses.

Program Start Date(s)

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

Career Opportunities/Information

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

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.

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/
COMPUTER INFORMATION SYSTEMS
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements………………37 Credits
   Goal 1: Written and Oral Communication .........................................................11 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr
   ENGL 1118, Reading and Writing Critically II, 4 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ..............................................................6 cr
   Choose two courses with labs from two different areas from MnTC Goal 3

   Goal 4: Mathematics/Logical Reasoning ..................................................3 cr
   MATH 1119, Applied Calculus for Business & Economics, 3 Cr
   OR
   MATH 1127, Calculus I, 5 Cr

   Goal 5: HISTORY AND the SOCIAL AND BEHAVIORAL SCIENCES ...........11 cr
   ECON 2214, Principles of Microeconomics, 4 Cr
   ECON 2215, Principles of Macroeconomics, 4 Cr
   Remaining credits from MnTC Goal 5 courses (other than ECON), 3 cr

   Goal 6: Humanities – The Arts, Literature, Philosophy .................................6 cr
   Choose a minimum of two credits from two different areas from MnTC Goal 6

II. Program Core Requirements:.............................................................23 Credits
   COMP 1150, Computer Science Concepts, 3 Cr
   COMP 2243, Programming & Problem Solving, 4 Cr
   COMP 2247, Algorithms and Data Structure, 4 Cr
   MATH 2218, Discrete Mathematics, 4 cr
   MATH 2350, Introduction to Mathematical Statistics, 4 cr
   ACCT 2217, Principles of Accounting I, 4 cr

TOTAL ..............................................................................................................60 Credits

Revised: 08/01/2012
Implementation: Spring 2013
COMPUTER PROGRAMMING SKILLS
Certificate

I. Core Requirements

COMP 1140, Introduction to Database and SQL, 3 cr
COMP 1150, Computer Science Concepts, 3 cr
COMP 2243, Programming and Problem Solving, 4 cr

II. Electives

Choose two courses:

COMP 1731, Programming for the Internet, 3 cr
COMP 1741, Java Script, 3 cr
COMP 1751, Mobile Application Development, 3 cr

TOTAL

16 Credits

Revised: 02/10/2015
Implementation: Fall 2015
COMPUTER SCIENCE
Associate in Science

Minnesota Transfer Curriculum (MnTC) General Education Requirements……..…40 Credits

Goal 1: Written and Oral Communication .....................................................11 cr
COMM 1114, Fundamentals of Speech, 3 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
ENGL 1118, Reading and Writing Critically II, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MnTC 1-10 GOALS

Goal 3: Natural Sciences .................................................................6 cr
Choose two courses with labs from two different areas from MnTC Goal 3

Goal 4: Mathematics/Logical Reasoning ..............................................5 cr
MATH 1127, Calculus I, 5 Cr

Goal 5: History and the Social And Behavioral Sciences.........................6 cr
Choose a minimum of two credits from two different areas from MnTC Goal 5

Goal 6: Humanities – The Arts, Literature, Philosophy ............................6 cr
Choose a minimum of two credits from two different areas from MnTC Goal 6

MnTC Electives ..............................................................................6 cr
Choose credits from approved MnTC courses

Program Core Requirements: ..............................................................19-20 Credits
COMP 1150, Computer Science Concepts, 3 Cr
COMP 2243, Programming & Problem Solving, 4 Cr
COMP 2247, Algorithms and Data Structure, 4 Cr
MATH 2218, Discrete Mathematics, 4 cr
MATH 2350, Introduction to Mathematical Statistics, 4 cr
OR
MATH 1128, Calculus II, 5 cr

III. Open Electives .............................................................................1 Credit
Physical Education course recommended

TOTAL ...............................................................................................60 Credits

Revised: 08/01/2012
Implementation: Spring 2013
CLINICAL RESEARCH COORDINATION
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements……25 Credits

Goal 1: Written and Oral Communication ................................................ 7 cr
COMM 1114, Fundamentals of Public Speaking, 3 cr
ENGL 1117, Reading & Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .................................................................7 cr
BIOL 1107, Fundamentals of Human A & P, 4 cr
CHEM 1101, Elements of Chemistry, 3 cr

Goal 4: Mathematics/Logical Reasoning ..............................................4 cr
MATH 2208, Fundamentals of Statistics, 4 cr

Goal 5: History and the Social and 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

II. Professional Education Requirements........................................36 Credits
BTEC 1610, Medical Terminology: Body Sys & Diseases, 2 cr
BUS 2240, Project Management, 3 cr
HIMC 1840, Introduction to Health Records, 4 cr
HIMC 1800, Legal Aspects of Health Information, 3 cr
CRSC 1010**, Foundations of Clinical Research I: Concepts and Theories, 4 cr
CRSC 1100**, Legal and Regulatory Research Compliance in Clinical Research, 4 cr
CRSC 2010**, Foundations of Clinical Research II: Applications, 4 cr
CRSC 2100**, Clinical Research Site Management, 4 cr
CRSC 3000**, Field Work, 8 cr

**Courses are held at Mayo School of Health Sciences (MSHS). All RCTC courses need to be taken either prior to or concurrent with the MSHS courses.

TOTAL .................................................................................................. 61 Credits
CLINICAL RESEARCH COORDINATION AAS COURSE SEQUENCE
Months 1-24

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**Summer Session Year 2**
CRSC 3000** 8
**TOTAL** 8

**Courses are held at Mayo School of Health Sciences (MSHS). All RCTC courses need to be taken either prior to or concurrent with the MSHS courses.

Credit Summary

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

Clinical Research Coordinators (CRCs), under the direction of a principal investigator, are responsible for the organization, coordination, and overall integrity of a research project. CRC responsibilities include protocol development; screening, recruiting, consenting, enrolling and scheduling participants; collecting data and maintaining databases; managing investigational drugs and devices; and ensuring accuracy of documentation.

This program provides skill-based training, exceptional professional development opportunities and the hands-on experience needed to create a well-rounded, fully competent CRC.
Purpose: The purpose of the Clinical Research Coordinator Program is to:
- produce individuals who are dedicated to safeguarding the rights, well-being and dignity of all research participants.
- educate individuals about the importance of upholding principles of ethical conduct in research to ensure safety and maintain confidentiality of all participants.
- promote clinical research excellence and integrity.
- teach individuals to be committed to the advancement of knowledge through clinical research.
- ensure that individuals are promoting the use of compassion while maintaining research standards.
- provide opportunities for a stimulating learning environment.

Admission Process:
Prospective CRC students must apply for admission and be accepted by RCTC. Then, they must complete the Mayo School of Health Sciences (MSHS) online Application for Admission [https://app.applyyourself.com/?id=mayo-qhr](https://app.applyyourself.com/?id=mayo-qhr). Finally, they must submit a copy of their RCTC Acceptance Letter and official transcripts documenting prerequisite completion to the CRC Program at Coordinator at Mayo School of Health Sciences, Clinical Research Coordinator Program, Stacy Johnson, CTSA - Plummer 3, 200 First Street SW, Rochester, MN 55905.

The Mayo application must be submitted no later than April 1st.

Admission Requirements:
- High school diploma or equivalent
- The equivalent of at least High school level biology within last five years
- The equivalent of at least High school algebra II within the past five years or math placement results testing out of MATH 0099: Intermediate Algebra (a score of at least 23 on the Accuplacer)

Registration and Sequence of Courses:
The program is designed to allow full-time students to complete all coursework within the first 24 months. Part time options can be made available. For CRSC 3000, one clinical credit is equivalent to 60 contact hours of work.

Program Completion:
Those who complete the program will be awarded a Certificate of Completion by Mayo School of Health Sciences and an Associate in Applied Science Degree by RCTC.

Revised: 11/08/2012
I. Professional Education Requirements........................................................................................................28 Credits
BTEC 1610, Medical Terminology: Body Sys & Diseases, 2 cr
BUS   2240, Project Management, 3 cr
HIMC 1840, Introduction to Health Records, 4 cr
HIMC 1800, Legal Aspects of Health Information, 3 cr
CRSC 1010**, Foundations of Clinical Research I: Concepts and Theories, 4 cr
CRSC 1100**, Legal and Regulatory Research Compliance in Clinical Research, 4 cr
CRSC 2010**, Foundations of Clinical Research II: Applications, 4 cr
CRSC 2100**, Clinical Research Site Management, 4 cr

II. Mayo - Field Work........................................................................................................................................8 Credits
CRSC 3000**              Field Work, 8 cr

**Courses are held at Mayo School of Health Sciences (MSHS). All RCTC courses need to be taken either prior to or concurrent with the MSHS courses.

TOTAL........................................................................................................................................................... 36 Credits

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

Clinical Research Coordinators (CRCs), under the direction of a principal investigator, are responsible for the organization, coordination, and overall integrity of a research project. CRC responsibilities include protocol development; screening, recruiting, consenting, enrolling and scheduling participants; collecting data and maintaining databases; managing investigational drugs and devices; and ensuring accuracy of documentation.

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

Purpose:
The purpose of the Clinical Research Coordinator Program is to:
• produce individuals who are dedicated to safeguarding the rights, well-being and dignity of all research participants.
• educate individuals about the importance of upholding principles of ethical conduct in research to ensure safety and maintain confidentiality of all participants.
• promote clinical research excellence and integrity.
• teach individuals to be committed to the advancement of knowledge through clinical research.
• ensure that individuals are promoting the use of compassion while maintaining research standards.
• provide opportunities for a stimulating learning environment.
CLINICAL RESEARCH COORDINATION DIPLOMA
Course Sequence
Months 1-12

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<th>Fall Semester</th>
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<th>Spring Semester</th>
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<td>CRSC 1010**</td>
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<td><strong>Total</strong></td>
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Summer Session

| CRSC 3000**   | 8       |
| **Total**     | 8       |

**Courses are held at Mayo School of Health Sciences (MSHS). All RCTC courses need to be taken either prior to or concurrent with the MSHS courses.

Credit Summary

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<tr>
<td>Professional Education</td>
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<tr>
<td>Field Work</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
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</table>

Admission Process:
Prospective CRC students must apply for admission and be accepted by RCTC. Then, they must complete the Mayo School of Health Sciences (MSHS) online Application for Admission [https://app.applyyourself.com/?id=mayo-qhr](https://app.applyyourself.com/?id=mayo-qhr). Finally, they must submit a copy of their RCTC Acceptance Letter and official transcripts documenting prerequisite completion to the CRC Program at Coordinator at Mayo School of Health Sciences, Clinical Research Coordinator Program, Stacy Johnson, CTSA - Plummer 3, 200 First Street SW, Rochester, MN 55905.

The Mayo application must be submitted no later than April 1st.

Admission Requirements:
- Associate degree or higher from an accredited institution
- High school diploma or equivalent
- The equivalent of at least High school level biology within last five years
- The equivalent of at least High school algebra II within the past five years or math placement results testing out of MATH 0099: Intermediate Algebra (a score of at least 23 on the Accuplacer)
Registration and Sequence of Courses: The program is designed to allow full-time students to complete the program in 12 months. All coursework is completed within two semesters at RCTC. The last three months or 480 hours is the fieldwork experience at the Mayo Clinic. Part time options can be made available. For CRSC 3000, one credit is equivalent to 64 contact hours of work.

Program Completion: At least 1/3 of total credits must be taken @ RCTC in order for a diploma to be awarded. Those who complete the program will be awarded a Certificate of Completion by Mayo and a Diploma by RCTC.

Revised: 11/08/2012
Criminal Justice

Career/Program Overview

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

Curriculum-at-a-Glance


Program/Degree Options

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

Program Start Date(s)

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

Career Opportunities/Information

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

Accreditations/Articulations

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

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

Additional Information

Program Website: http://www.rctc.edu/program/criminal-justice/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
CRIMINAL JUSTICE
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements...........30 Credits
   Goal 1: Written and Oral Communication .................................................8 cr
       ENGL 1117, Reading and Writing Critically I, 4 cr
       ENGL 1118, Reading and Writing Critically II, 4 cr
   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS
   Goal 3: Natural Sciences .................................................................3 cr
       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 ......................13 cr
       SOC 1614, Introduction to Sociology, 3 cr
       PSYC 2618, General Psychology, 4 cr
       SOC 2625, Minority Group Relations, 3 cr
       Credits from MnTC Goal 5, 3 cr
   Goal 6: Humanities—the Arts, Literature, Philosophy ............................3 cr
       Credits from MnTC Goal 6

II. Professionally-Related Requirements....................................................30 Credits
    CRJU 1305, Introduction to Criminal Justice, 3 cr
    CRJU 1308, Introduction to Corrections, 3 cr
    LAWE 1112, Introduction to Criminal Investigations, 4 cr
    LAWE 2110, 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
    CRJU 2310, Special Topics in Criminal Justice, 3 cr
    CRJU 2315, Community Corrections and Probation, 3 cr

Total.........................................................................................60 Credits

Revised: 10/15/2015
Implementation: Fall 2015
Customer Service

Career/Program Overview

RCTC offers two degree options: Customer Service Office Assistant, Certificate and Customer Service Administrative Specialist, Diploma.

Customer Service careers involve interaction with customers to handle complaints, process orders, and provide information about an organization’s products and or services.

Employment can be found in customer service in nearly every industry.

Curriculum-at-a-Glance

**Customer Service** coursework: Extensive training is provided in written and oral communications, keyboarding, current software applications, office-related technology, theory and applied customer service skills and professionalism. Special focus will be on how to apply service recovery techniques, instill customer loyalty and demonstrate critical thinking skills.

Careers related to customer service are:

- Administrative Assistant
- Administrative Assistant: Legal Emphasis,
- Administrative Clinic Assistant
- Software Applications Specialist

Program/Degree Options

- Administrative Assistant, Certificate
- Administrative Assistant, Diploma
- Administrative Assistant, Associate in Applied Science
- Administrative Assistant, Associate in Science
- Administrative Assistant Refresher, Certificate
- Administrative Assistant: Legal Emphasis, Certificate
- **Customer Service Administrative Specialist, Diploma**
- **Customer Service Office Assistant, Certificate**
- Software Applications Specialist, Certificate

Program Start Date(s)

Students can start coursework any semester. Full-time and part-time schedules are available. All courses in the Administrative Assistant careers, Software Specialist and Customer Service careers are available entirely online. Many courses within each of these programs are also offered on campus or in a hybrid format (on campus and online) as well.

Career Opportunities/Information

Customer Service job opportunities may be available in large and small offices including Charter Communications, Ag Star, dental, chiropractic and podiatry clinics. Mayo Clinic, Olmsted Medical, the City of Rochester, Olmsted County, Non Profit Organizations, public and private educational campuses and manufacturing, to name a few.

Employment of customer service representatives is projected to grow 10 percent from 2014 to 2024, faster than the average for all occupations. Overall job opportunities should be good. Candidates with good customer-service skills and who have experience using computer software applications should have the best job prospects.

Average salary for a Customer Service Specialist is $15.26. The salary range for a Customer Service Specialist is $12.39 to $18.72. Salaries for Customer Service Specialists will very in MN depending upon specialty skills.

Administrative Assistants will vary in Minnesota depending upon specialty skills. Average salary is $18.18 in MN and salaries range from $14.48 to $23.06.

Average salary of a Software Specialist is $15.86. The salary range of a Software Specialist is $8.17 to $21.15

Average salary of an Administrative Clinic Assistant is $15.63 to $21.95.

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

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

Additional Information

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

I. Professionally-Related Business Requirements .................................................. 29 Credits
   BTEC 1015, Essential Computer Applications, 2 cr
   BTEC 1030, Keyboarding for Speed and Accuracy, 1 cr
   BTEC 1220, Human Relations in Organizations, 3 cr
   BTEC 2220, Business Communications, 3 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 2617, Support Role in Meeting/Event Management, 2 cr
   BTEC 2622, Current Workplace Technology, 3 cr
   BTEC 2870, Employment Strategies, 1 cr
   COMM 2130, Team/Small Group Communication, 3 cr
   ENGL 1630, English Grammar for Careers, 3 cr

II. Electives ............................................................................................................. 4 Credits
   Suggested Electives:
   BTEC 1001, Success in the Digital and Online Learning Environment, 1 cr
   BTEC 1020, Keyboarding for Computers, 1 cr
   BTEC 1050, Keyboarding for Professionals, 2 cr
   BTEC 1320, Document Production, 3 cr

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

TOTAL .................................................................................................................. 33 Credits

Purpose: This program is designed to prepare students for customer service positions in a wide variety of businesses. The customer service administrative specialist is trained in being able to help in all areas of customer service providing technical information and services to external and internal customers in person, by email or over the phone. A specialist will handle complicated requests where there are not always clear procedural responses.

Revised: 02/09/2016
Implementation: Fall 2015
CUSTOMER SERVICE OFFICE ASSISTANT
Certificate

I. Professionally-Related Business Requirements ......................................................... .18 Credits
   BTEC 1015, Essential Computer Applications, 2 cr
   BTEC 1030, Keyboarding Speed and Accuracy, 1 cr
   BTEC 1220, Human Relations in Organizations, 3 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 2870, Employment Strategies, 1 cr
   ENGL 1630, English Grammar for Careers, 3 cr

II. Electives......................................................................................................................... 2 Credits
   Suggested Electives:
   BTEC 1001, Success in the Digital and Online Learning Environment, 1 cr
   BTEC 1020, Keyboarding, 1 cr
   BTEC 1050, Keyboarding for Professionals, 2 cr
   BTEC 2617, Support Role in Meeting/Event Planning, 2 cr

TOTAL....................................................................................................................................20 Credits

NOTE: KEYBOARDING Level Needed: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm or successfully complete BTEC1020, Keyboarding, as an elective.

Purpose: This program is designed for anyone who engages in customer service activities in their professional or personal lives. It is important to know that simply being exposed to customers does not mean one understands how to do it well or how to evaluate whether one is delivering or receiving an acceptable level of customer service. This certificate is intended to provide students with a 17 credit background in the principles of quality customer service, in person on the telephone or by email. After successfully completing this certificate, students will be able to meet the needs of customers, patients, and clients of all ages.

Revised: 04/14/2015
Implementation: Fall 2015
Dance

Career/Program Overview

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

Curriculum-at-a-Glance

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

Students who wish to earn a 22 credit certificate in Dance will complete 12 credits from DANC course options (Dance Appreciation, Ballet, Modern, Jazz), 1 credit for PHED 1103 (Social Dance), 3 credits from Humanities and the Arts Minnesota Transfer Curriculum (MnTC) course options, and 6 credits of open electives/student choice MnTC course options.

Program Start Date(s)

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

Career Opportunities/Information

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

Gainful Employment Programs

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.

Accreditation/Articulations

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

Additional Information

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

I. Core Requirements .......................................................................................................... 16 Credits
   DANC 1101, Ballet I, 3 cr
   DANC 1102, Modern I, 3 cr
   DANC 1103, Jazz I, 3 cr
   DANC 1125, Dance Appreciation, 3 cr
   PHED 1103, Social Dance, 1 cr
   HUM, Students may select any 3 credit MnTC Arts/Humanities course, 3 cr

II. Open Electives ................................................................................................................. 6 Credits
    Students may select any MnTC courses from 2 different disciplines

TOTAL....................................................................................................................................... 22 Credits

PURPOSE: The Fine Arts Dance Certificate will provide students the opportunities to experience and learn about a broad spectrum of dance (from classical ballet and various styles of modern dance to the social dance of cultures from around the world); to partner with students in developing the physical and technical skills necessary to communicate through dance and to articulate the knowledge of dance; and inspire students to participate in dance activities and to foster the intellectual and creative growth of dancers by instilling in them a commitment to artistic and personal excellence.

Revised: 03/11/2014
Dental Assistant

Career/Program Overview

A dental assistant is a vital member of the dental health team and enjoys a broad range of exciting and challenging duties. The job description of a dental assistant includes: preparation of instrument tray set-ups and treatment rooms, chairside assisting for dental procedures, expanded functions, patient oral care instruction, instrument recirculation and sterilization, dental laboratory procedures, and dental business office procedures. Expanded functions are a special group of procedures a qualified Minnesota dental assistant may perform independently on a patient; such as polishing the teeth, taking radiographs, applying dental sealants, taking impressions, tying in orthodontic wires, 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 and clinical experiences required to make the graduate a valuable member of the dental health care profession. The program prepares the student to function in both general and specialty dental practices.

Curriculum-at-a-Glance

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

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

Program/Degree Options

RCTC’s Dental Assistant program offers both a 47 credit diploma option and a 64 credit Associate in Applied Science degree option. 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

The career outlook for Certified and Licensed Dental Assistants in Minnesota is EXCELLENT! Dental Assistants are in demand throughout the United States and enjoy excellent work schedules, attractive compensation packages and pleasant work environments. The RCTC Dental Assistant Program has excellent job placement and the 2015 graduates entered the job market with a starting salary range of $17 to $22 per hour.

A dental assistant may be employed in a general dental practice or a specialty dental practice. The dental specialties include: Pediatric Dentistry, Orthodontics, Oral and Maxillo-Facial Surgery, Endodontics, Periodontics and Prosthodontics. A dental assistant may be employed in solo or group dental practices, hospital dentistry, research institutions, government dental facilities, or dental training facilities. Some employment opportunities exist with dental product manufacturers and dental supply companies.

Gainful Employment Programs

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 majority of the RCTC Dental Assisting graduates earn an AAS Degree. The most current RCTC gainful employment information can be found at: http://www.rctc.edu/catalog/programs.

Accreditations/Articulations

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

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

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

Miscellaneous Information

Program Pre-admission Requirements: Please see the Dental Assistant Program application form for a detailed description of pre-program admission criteria for each different dental assistant program major and delivery option.

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

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

Additional Information

Program Website: http://www.rctc.edu/program/da/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
DENTAL ASSISTANT
Associate in Applied Science

Program Accreditation: American Dental Association, Commission on Dental Accreditation, in compliance with the standards set forth by the ADA Council on Dental Education.

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements...........17 Credits
Goal 1: Written and Oral Communications ................................................. 7 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
COMM 1114, Fundamentals of Speech OR COMM 1130, Interpersonal Communications, 3 cr

Goal 2: Critical Thinking (CT) MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ................................................................. 4 cr
BIOL 1110, Human Biology, 4 Cr

Goal 5: History and the Social and Behavioral Sciences ......................... 3 cr
PSYC 1611, Psychology of Adjustment, 3 cr OR PSYC 2618, General Psychology, 4 cr

Goal 6: Humanities – The Arts, Literature, Philosophy .......................... 3 cr
Credits from MnTC Goal 6

II. Professional Courses ........................................................................47 Credits
DA 1200, Dental Communications, 3 cr
DA 1210, Dental Science I, 3 cr
DA 1215, Dental Practice Management, 2 cr
DA 1220, Chairside Assisting I, 6 cr
DA 1225, Dental Infection Control, 2 cr
DA 1230, Preventive Dentistry, 2 cr
DA 1250, Dental Science II, 3 cr
DA 1255, Dental Materials, 4 cr
DA 1260, Chairside Assisting II, 4 cr
*DA 1265, Expanded Functions, 7 cr
*DS 1300, Dental Radiology, 3 cr
*DA 1270, Expanded Functions II, 1 cr
*DA 1280, Dental Assisting Internship, 7 cr

(*Students must show current certification in either American Red Cross: CPR for the Professional Rescuer or American Heart Association: BLS Healthcare Provider to enroll in this course. The certification will need to remain active throughout the final semester in Dental Assisting.)

TOTAL ........................................................................................................64 Credits
**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](https://www.revisor.mn.gov/statutes/?id=245C.15). Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

**Purpose:** The Dental Assistant major is designed to provide the student with the technical knowledge, manual skills, clinical experiences, communication skills, and positive attitudes toward work required to make the graduate a valuable member of the dental health care profession.

The dental assistant 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](http://www.rctc.edu/program/da/admission.html).

Revised: 03/01/2012
DENTAL ASSISTANT
Diploma

Program Accreditation: American Dental Association, Commission on Dental Accreditation, in compliance with the standards set forth by the ADA Council on Dental Education.

I. Professional Requirements ........................................................................................................47 Credits
   DA 1200, Dental Communications, 3 cr
   DA 1210, Dental Science I, 3 cr
   DA 1215, Dental Practice Management, 2 cr
   DA 1220, Chairside Assisting I, 6 cr
   DA 1225, Dental Infection Control, 2 cr
   DA 1230, Preventive Dentistry, 2 cr
   DA 1250, Dental Science II, 3 cr
   DA 1255, Dental Materials, 4 cr
   DA 1260, Chairside Assisting II, 4 cr
   *DA 1265, Expanded Functions I, 7 cr
   *DS 1300, Dental Radiology, 3 cr
   *DA 1270, Expanded Functions II, 1 cr
   *DA 1280, Dental Assisting Internship, 7 cr
   (* Students must show current certification in either American Red Cross: CPR for the Professional Rescuer or American Heart Association: BLS Healthcare Provider to enroll in this course. The certification will need to remain active throughout the final semester in Dental Assisting.)

TOTAL ........................................................................................................................................47 Credits

Notice of Minnesota Background Study Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background study will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

Purpose: The Dental Assistant major is designed to provide the student with the technical knowledge, manual skills, clinical experiences, communication skills, and positive attitudes toward work required to make the graduate a valuable member of the dental health care profession. The Dental Assistant Program may be completed in one year as a full-time student, or in two years as a part-time student.

The dental assistant may assist the dentist at chairside, perform expanded functions and dental laboratory procedures, or act as a receptionist or an office manager. The program prepares the student to function in both general and specialty dental practices.
Clinical experience is obtained in the technically current dental clinic. The clinic has twelve operatories equipped for four-handed dentistry, a recirculatory/sterilization room, a darkroom for processing x-rays, and a complete dental laboratory. Patients come to the dental clinic for tooth

polishing, fluoride treatments, dental x-rays, pit and fissure sealants and personal oral care instruction. A dentist is on staff to aid in the direct instruction and supervision of students, along with dentists from the community who give guest presentations. In the summer semester, students will further their clinical experience through three assigned internships in different dental offices in southeastern Minnesota.

Revised: 08/01/2012
DENTAL ASSISTANT:
Expanded Functions Option
Certificate

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

I. Professional Core ........................................................................................................................................ 13 Credits

DA 1225, Dental Infection Control, 2 cr
*DA 1265, Expanded Functions I, 7 cr
*DS 1300, Dental Radiology, 3 cr
*DA 1270, Expanded Functions II, 1 cr

(* Students must show current certification in either American Red Cross: CPR for the Professional Rescuer or American Heart Association: BLS Healthcare Provider to enroll in this course. The certification will need to remain active throughout the final semester in Dental Assisting.)

TOTAL...................................................................................................................................................... 13 Credits

Notice of Minnesota Background Study Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background study will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

Purpose:
This certificate program focuses specifically on Minnesota Expanded Functions for Dental Assistants. Approved curriculum includes academic and laboratory/clinical experience in all Minnesota Dental Assistant Expanded Functions. For entry into this certificate program, the applicant must currently be a Certified Dental Assistant, certified by the Dental Assisting National Board, Inc. and hold a current CPR/First Aid Certificate from the American Red Cross. Upon successful completion of the certificate requirements, the student is eligible to take the Minnesota Licensing Examination for Dental Assistants.

Clinical experience is obtained in the technically current dental clinic. The clinic has twelve operatories equipped for four-handed dentistry, a recirculation/sterilization room, a darkroom for processing x-rays, a dental reception area, and a complete dental laboratory. Patients come to the dental clinic for tooth polishing, fluoride treatments, dental x-rays, pit and fissure sealants and preventive oral care instruction. A dentist is on staff to aid in the direct instruction and supervision of students.

Revised: 08/01/2012
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/
DENTAL HYGIENE
Associate of Applied Science

Program Accreditation: American Dental Association, Commission on Dental Accreditation

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ................ 32 Credits

Goal 1: Written and Oral Communication ........................................................... 7 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Public Speaking OR COMM 1130, Interpersonal Communication, 3 Cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ...................................................................................... 16 cr
BIOL 1217, Anatomy and Physiology I, 4 cr
BIOL 1218, Anatomy and Physiology II, 4 cr
BIOL 2021, General Microbiology, 4 cr
CHEM 1117, General Chemistry, 4 cr

Goal 5: History and the Social and Behavioral Sciences ...................................... 6 cr
PSYC 1611, Psychology of Adjustment, 3 cr OR PSYC 2618, General Psychology, 4 cr
SOC 1614, Introduction to Sociology, 3 cr

Goal 6: Humanities – The Arts, Literature, Philosophy ........................................ 3 cr
Credits from MnTC Goal 6

II. Program-related Professional Courses ............................................................. 51 Credits
NUTR 1211, Principles of Nutrition, 3 cr
DH 1512, Oral Anatomy, 4 cr
DH 1510, Principles of Dental Hygiene I, 2 cr
DH 1520, Principles of Dental Hygiene II, 2 cr
DH 1511, Dental Hygiene Practice I, 3 cr
DH 1521, Dental Hygiene Practice II, 5 cr
DS 1300, Dental Radiology, 3 cr
DH 1523, Oral Pathology, 2 cr
DH 1524, Periodontology, 2 cr
DH 2530, Principles of Dental Hygiene III, 3 cr
DH 2540, Principles of Dental Hygiene IV, 3 cr
DH 2531, Dental Hygiene Practice III, 6 cr
DH 2541, Dental Hygiene Practice IV, 6 cr
DH 2532, Pain Control, 2 cr
DH 2533, Dental Pharmacology, 2 cr
DH 2542, Community Dental Health, 3 cr

TOTAL ..................................................................................................................................... 83 Credits
Notice of Minnesota Background Study Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background study will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

Purpose: The goal of the program is to provide academic and clinical educational opportunities for capable individuals to acquire the knowledge, skills, and attitudes necessary for the professional practice of dental hygiene. The program prepares individuals for a variety of career opportunities in private dental offices, schools, hospitals, clinics, and public health agencies. Members of the dental hygiene profession act as allied personnel to the dentist and make it possible for more complete preventive dental services to be provided to the public. The dental hygienist provides direct patient care and functions as an integral member of the dental team.

DENTAL HYGIENE COURSE SEQUENCE: General education courses and Nutrition may be completed prior to enrollment in the Dental Hygiene course sequence or as allowed during the first year.

<table>
<thead>
<tr>
<th>Fall Semester (first year)</th>
<th>Fall Semester (second year)</th>
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<tbody>
<tr>
<td>DH 1512, 4 cr</td>
<td>DH 2530, 3 cr</td>
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<tr>
<td>DH 1510, 2 cr</td>
<td>DH 2531, 6 cr</td>
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<tr>
<td>DH 1511, 3 cr</td>
<td>DH 2532, 2 cr</td>
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<td>DH 2533, 2 cr</td>
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<tr>
<th>Spring Semester (first year)</th>
<th>Spring Semester (second year)</th>
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<tbody>
<tr>
<td>DH 1520, 2 cr</td>
<td>DH 2542, 3 cr</td>
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<tr>
<td>DH 1521, 5 cr</td>
<td>DH 2540, 3 cr</td>
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<td>DH 1523, 2 cr</td>
<td>DH 2541, 6 cr</td>
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<tr>
<td>DH 1524, 2 cr</td>
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<tr>
<td>DS 1300, 3 cr</td>
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</tbody>
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Registration and Sequence of Courses: General education credits may be taken prior to entering the Dental Hygiene Program. The dental hygiene courses are a four semester sequence and must be taken without a break in registration.

Program Completion: Those who complete the program will be awarded an Associate in Applied Science Degree by RCTC. Graduates are eligible to take the licensure exams which are required in all 50 states for the practice of dental hygiene.

Admission Prerequisites: Registration and Sequence of Courses: General education credits are taken prior to entering the Dental Hygiene Program. The dental hygiene courses are taken in a four-semester sequence and must be taken without a break in registration.
Program Completion: Those who complete the program will be awarded an Associate in Applied Science Degree by RCTC. Graduates are eligible to take the licensure exams which are required in all 50 states for the practice of dental hygiene.

Revised: 03/22/2012
Developmental Disability Assistant

Career/Program Overview

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

The program provides individuals with practical training in mental health, chemical health, and disabilities fields. Individuals may also enter the program to continue their education, to gain knowledge of new developments and techniques, or to obtain career advancement. 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 36 credit Diploma as a Human Services Technician or a 60 credit Associate in Science Degree as a Human Services Specialist. The three certificate options consist of 11 credits each: Chemical Health Assistant, Developmental 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.

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

Articulations/Articulations

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

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

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

Additional Information

Program Website: [http://www.rctc.edu/program.hs/](http://www.rctc.edu/program.hs/)
Program Plan: [http://www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)
More Information: [http://www.rctc.edu/contact/](http://www.rctc.edu/contact/)
HUMAN SERVICES TECHNICIAN:  
Developmental Disability Assistant 
Certificate

I. RCTC General Education: Allied Studies ................................................................................ 1 Credit

   HLTH 1109, Community CPR/First Aid & Safety, 1 cr

II. Major Requirements ............................................................................................................ 10 Credits

   NA 1500, Nursing Assistant Theory and Clinical, 3 cr
   HS 1511, Medication Administration for Unlicensed Personnel, 2 cr
   HS 1570, Developmental Disabilities, 2 cr
   HS 1575, Developmental Disabilities Field Experience, 3 cr

TOTAL .............................................................................................................................................11 Credits

Notice of Minnesota Background Check Requirement
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: 02/24/2010
Digital Art

Career/Program Overview

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

Curriculum-at-a-Glance


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; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, 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. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

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

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

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

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

Gainful Employment Programs

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.

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: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact
ART + DESIGN:
DIGITAL ART
Certificate

I. Core Requirements.......................................................................................................... 24 Credits
   ART 1120, Computer as Creative Media, 3 cr
   ART 1121, 2D Design, 3 cr
   ART 1124, Graphic Design I, 3 cr
   ART 1130, Digital Art I, 3 cr
   ART 1131, Presentation Graphics, 3 cr
   ART 1223, Typography I, 3 cr
   ART 2224, Graphic Design II, 3 cr
   ART 2230, Digital Art II, 3 cr

TOTAL……………. ................................................................................................................. 24 Credits

PURPOSE: The purpose of the Digital Arts Certificate Program is to introduce students to the perceptual,
conceptual, and technical skills needed for a digital artist. Students explore drawing, using the computer as an
artistic medium, the issues of image creation both in 2D and 3D.

This certificate provides students who already have a degree a topic of study as a designer. This certificate is
also a great access point to begin the Graphic Design Associate of Science (two-year) Degree Program.

Revised: 03/30/2011
Implementation: Fall 2011
Emergency Medical Technology

Career/Program Overview

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

Curriculum-at-a-Glance

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

Program/Degree Options

RCTC offers a Certificate in Emergency Medical Technology.

Program Start Date(s)

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

Career Opportunities/Information

Employment of emergency medical technicians and paramedics is expected to grow 9% between 2008 and 2018, which is about as fast as the average for all occupations. Growth in this occupation is due in large part to increasing call volume due to aging population. As a large segment of the population—aging members of the baby boom generation—becomes more likely to have medical emergencies, demand will increase for EMTs and paramedics. In addition, the time that EMTs and paramedics must spend with each patient is increasing as emergency departments across the country are experiencing overcrowding. As a result, when an ambulance arrives, it takes longer to transfer the patient from the care of the EMTs and paramedics to the staff of the emergency department.

In addition, some emergency departments divert ambulances to other hospitals when they are too busy to take on new patients. As a result, ambulances may not be able to go to the nearest hospital, which increases the amount of time spent in transit. Both these factors result in EMTs and paramedics spending more time with each patient, which means more workers are needed to meet demand. Emergency Medical Technician positions are part of ambulance services, fire department based, rural EMS services, hospitals, clinics and EMS education.

Gainful Employment Programs

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.

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/emt/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
EMERGENCY MEDICAL TECHNOLOGY
Certificate

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ....................16 Credits

Goal 1: Written and Oral Communications .................................................................4 cr
ENGL 1117, Reading & Writing Critically I, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .........................................................................................8 cr
BIOL 1107, Fundamentals of Anatomy and Physiology, 4 cr
CHEM 1117, General Organic & Biological I Chemistry, 4 cr

Goal 5: History and the Social and Behavioral Sciences.................................4 cr
PSYC 2618, General Psychology, 4 cr

II. EMT Core Requirements .....................................................................................8 Credits
EMT 1200, Emergency Medical Technician, 8 cr

TOTAL .........................................................................................................................24 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Purpose: The 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.

Revised: 11/15/2014
Implementation: Spring 2015
Emergency Medicine Paramedic

Career/Program Overview

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

Curriculum-at-a-Glance

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

Program/Degree Options

RCTC, in collaboration with Mayo School of Health Sciences (MSHS), offers a 75 credit Associate in Science degree as an Emergency Medicine Paramedic. An Advanced Standing option is also available to working paramedics who are now interested in completing their Associate in Science Degree.

Program Start Date(s)

Students can begin general education requirements any semester. A second, separate process of applying to the Emergency Medicine Paramedic Program at MSHS is also required. Applicants must be currently state certified and nationally registered as an EMT-Basic or Intermediate.

Additional admissions requirements can be found by visiting the MSHS website at http://www.mayo.edu/mshs/careers/emergency-medicine.

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.

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.

Accreditations/Articulations

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

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

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

Additional Information

MSHS Website: http://www.mayo.edu/mshs/careers/emergency-medicine
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
EMERGENCY MEDICINE PARAMEDIC
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ................................................................. 32 Credits
   Goal 1: Written and Oral Communications .............................................................. 7 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Public Speaking OR COMM 1130, Interpersonal Communications, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ...................................................................................... 12 cr
   BIOL 1217, Anatomy and Physiology I, 4 cr
   BIOL 1218, Anatomy and Physiology II, 4 cr
   CHEM 1117, General Organic & Biological I Chemistry, 4 cr

   Goal 5: History and the Social and Behavioral Sciences ........................................ 10 cr
   SOC 1614, Introduction to Sociology, 3 cr
   PSYC 2618, General Psychology, 4 cr
   PSYC 2626, Human Growth and Development, 3 cr

   Goal 6: Humanities – the Arts, Literature and Philosophy ........................................ 3 cr
   PHIL 1135, Bioethics, 3 cr OR PHIL 1125, Ethics, 3 cr

II. Paramedic Core Requirements .................................................................................. 40 Credits
   EMPP 1101 Paramedic Prep I, 3 cr
   EMPP 1105 Paramedic Internship I, 3 cr
   EMPP 1205 Paramedic Internship II, 2 cr
   EMPP 1230 Principles 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 I, 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
   HLTH 1132, Drug Use and Abuse, 3 cr
   MATH 1115, College Algebra, 3 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](https://www.revisor.mn.gov/statutes/?id=245C.15). Information about completing the background study will be available from program faculty.

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

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

Following appointment to the program by the Mayo 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.

Admission Pre-requisites:
1. High School diploma or GED.
2. Enrollment at RCTC.
3. Elementary Algebra (MATH 0098) with a “C” or better or equivalent.
4. Three credits of college composition, ENGL 1117 or higher suggested.
5. State certified and nationally registered as an EMT-Basic or Intermediate.
6. Biology and Chemistry classes to be completed no more than five years prior to admission to the program.

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).

Revised: 05/06/2014
Implementation: Fall 2014
Engineering

Career/Program Overview

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. Formal transfer agreements are in place for the University of Minnesota – Twin Cities and MSU-Mankato, the top two transfer institutions for our students. RCTC engineering students have transferred to many other institutions as well.

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.*


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/engineering/
Program Plan: http://www.rctc.edu/program/engineering/program_plans.html
More Information: http://www.rctc.edu/contact/
ENGINEERING
Associate in Science

It is very important to complete the appropriate math and science sequences and as many other general education requirements as possible prior to transfer. However, it is not always necessary to complete the A.A. degree before transferring. Contact your transfer college to discuss this and meet with an RCTC counselor to ensure that the correct courses are chosen. For more detailed advising, including transfer plans to specific universities and much more, please go to: [www.roch.edu/dept/sci/engineering/advising.htm](http://www.roch.edu/dept/sci/engineering/advising.htm)

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements.............30 Credits
   Goal 1: Written and Oral Communication .........................................................4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences .................................................................................5 cr
   PHYS 1127, Classical Physics I, 5 cr

   Goal 4: Mathematics/Logical Reasoning.........................................................5 cr
   MATH 1127, Calculus I, 5 cr

   Goal 5: History and Social and Behavioral Sciences.................................6 cr
   Credits from MnTC Goal 5

   Goal 6: The Humanities - the Arts, Literature and Philosophy ...............6 cr
   Credits from MnTC Goal 6

   General Education Elective.............................................................................4 cr
   Credits from MnTC Goal 1-6 (See an RCTC counselor for appropriate choices)

II. Core Requirements.........................................................................................20 Credits
   MATH 1128, Calculus II, 5 cr
   MATH 2237, Multivariable and Vector Calculus, 5 cr
   MATH 2238, Differential Equations & Linear Algebra, 5 cr
   PHYS 1128, Classical Physics II, 5 cr

III. Additional courses .........................................................................................10 Credits
    Choose courses from the following list based on the engineering area of emphasis (electrical, mechanical, chemical, etc.) and the intended transfer institution. Contact RCTC counselors to determine which courses are necessary and visit [www.roch.edu/dept/sci/engineering/advising.htm](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
ENGR 1152, Logic Design, 4 cr
ENGR 1153, Microprocessors, 4 cr
ENGR 2211, Statics, 3 cr
ENGR 2212, Dynamics, 3 cr
ENGR 2213, Linear Circuit Analysis I, 4 cr
ENGR 2214, Linear Circuit Analysis II, 4 cr
ESCI 1101, Earth Systems Science, 3 cr
ESCI 1114, Physical Geology, 4 cr
MATH 2218, Discrete Mathematics, 4 cr
Additional General Education credits depending on major, 1-10 cr

**Total** .........................................................................................................................60 Credits

**NOTE:** University of Minnesota – Twin Cities engineering programs require two years of high school foreign language or two semesters of college foreign language.

To investigate the general education requirements for the University of Minnesota – Twin Cities, see [http://www.roch.edu/dept/sci/engineering/universities/uofm/uofmgened.htm](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](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](http://www.roch.edu/dept/sci/engineering/advising/htm)

Revised: 03/01/2012
Implementation: Fall 2012
Environmental Science

Career/Program Overview

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. Transfer agreements for the Environmental Science program have been established with Winona State University, University of Wisconsin-River Falls, and University of Minnesota-Crookston, each of which enables smooth transfer to BS programs in Environmental Science at four-year universities. Learn more at: http://www.rctc.edu/program/es/

Curriculum-at-a-Glance


Program/Degree Options

RCTC offers an Associate in Science (AS) degree in Environmental Science. It can be completed in two years. This program has transfer agreements with four-year universities, including Winona State University, University of Minnesota-Crookston, and University of Wisconsin-River Falls.

Program Start Date(s)

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

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.

AS degree career options include:* Environmental Science and Protection Technicians (27%), Forest and Conservation Technicians (6%)

BS degree career options include:* Biological Technicians (21%) Environmental Scientists (9%), Natural Sciences Managers (5%), Middle School/High School Teachers (6-12%) Zoologists and Wildlife Biologists (2.4%)

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

*Growth rate data obtained from positivelyminnesota.com, data.bls.gov, and careerinfo.net

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 (BS) 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.

For more information about these articulations: http://www.rctc.edu/program/es/additional_information.html

For additional information about RCTC articulations: http://www.rctc.edu/catalog/articulations/

Miscellaneous Information

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

Additional Information

Program Website: http://www.rctc.edu/program/es/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
ENVIRONMENTAL SCIENCE
Associate in Science

I. Minnesota Transfer Curriculum General Education Requirements........................................31 Credits

Goal 1: Written and Oral Communication........................................11 cr
COMM 1114, Fundamentals of Speech, 3 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
ENGL 1118, Reading & Writing Critically II, 4 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 goals

Goal 3: Natural Sciences .................................................................7 cr
BIOL 1102, Plant Biology, 3 cr
BIOL 1220, Concepts of Biology, 4 cr

Goal 4: Mathematics/Logical Reasoning ..............................................4 cr
MATH 2208, Fundamentals of Statistics, 4 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
Choose one of the following courses:
PHIL 1125, Ethics, 3 cr
PHIL 1130, Environmental Ethics, 3 cr

Goal 10: People and the Environment ..............................................3 cr
BIOL 1100, Environmental Biology, 3 cr

II. Professional Core Requirements.................................................................................29 Credits

BIOL 1230, Survey of Life Forms, 4 cr
BIOL 1300, Biological Applications of GIS Technology, 3 cr
BIOL 1400, Environmental Science Internship, 2 cr
BIOL 2000, Ecology, 4 cr
BIOL 2200, Zoology, 4 cr
BIOL 2300, Genetics, 4 cr

Choose one of the following two-course sequences:
CHEM 1127 & CHEM 1128, Chemical Principles I & II, 8 cr
PHYS 1107 & 1108, Technical Physics I & II, 8 cr
PHYS 1117 & 1118, Introductory Physics I & II, 8 cr

TOTAL A.S. CREDITS .............................................................................................................60 Credits
TOTAL CREDITS TOWARD WSU, UWRF, or UM-Crookston Degree.................................60 Credits
This program has transfer articulation agreements with Winona State University, University of Wisconsin-River Falls, and University of Minnesota-Crookston. (Please visit [http://www.rctc.edu/catalog/articulations/](http://www.rctc.edu/catalog/articulations/) for more information on articulations).

**Environmental Science A.S. course planning worksheet – Two-year plan**

More options for course scheduling can be found at the Environmental Science Program website: [http://www.rctc.edu/program/es/additional information.html](http://www.rctc.edu/program/es/additional information.html)

The AS in Environmental Science includes general education requirements (Minnesota Transfer Curriculum) and core science course requirements. This worksheet lays out a variety of possible pathways to complete the degree, taking into account courses that are offered in only one semester per year and those that are offered every other year. Careful planning is necessary to avoid potential scheduling conflicts, especially between the various science courses that have labs associated with them. Schedules are subject to change—check current listings.

If you are planning to complete the program in two years, please see one possibility listed below. Please see more options at: [http://www.rctc.edu/program/es/additional information.html](http://www.rctc.edu/program/es/additional information.html)

If you begin in the Fall of an odd-numbered year:

**Fall Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1100</td>
<td>Environmental Biology</td>
</tr>
<tr>
<td>BIOL 1220</td>
<td>Concepts of Biology</td>
</tr>
<tr>
<td>COMM 1114</td>
<td>Fundamentals of Public Speaking</td>
</tr>
<tr>
<td>PHIL 1125 or1130</td>
<td>Ethics/Environmental Ethics</td>
</tr>
<tr>
<td><strong>Total</strong>: 13 cr</td>
<td></td>
</tr>
</tbody>
</table>

**Spring Year 1**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 1102</td>
<td>Plant Biology</td>
</tr>
<tr>
<td>BIOL 1230</td>
<td>Survey of Life Forms</td>
</tr>
<tr>
<td>BIOL 1300</td>
<td>Applications of GIS Technology</td>
</tr>
<tr>
<td>BIOL 1400</td>
<td>Environmental Science Internship</td>
</tr>
<tr>
<td>MATH 2208</td>
<td>Fundamentals of Statistics</td>
</tr>
<tr>
<td><strong>Total</strong>: 16 cr</td>
<td></td>
</tr>
</tbody>
</table>

**Fall Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2000</td>
<td>Ecology</td>
</tr>
<tr>
<td>BIOL 2200</td>
<td>Zoology</td>
</tr>
<tr>
<td>CHEM 1127</td>
<td>Chemical Principles I</td>
</tr>
<tr>
<td>ENGL 1117</td>
<td>Reading and Writing Critically I</td>
</tr>
<tr>
<td><strong>Total</strong>: 16 cr</td>
<td></td>
</tr>
</tbody>
</table>

**Spring Year 2**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2300</td>
<td>Genetics</td>
</tr>
<tr>
<td>CHEM 1128</td>
<td>Chemical Principles II</td>
</tr>
<tr>
<td>ENGL 1118</td>
<td>Reading and Writing Critically II</td>
</tr>
<tr>
<td>SOC 1614</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td><strong>Total</strong>: 15 cr</td>
<td></td>
</tr>
</tbody>
</table>

Revised: 03/10/2015
Implementation: Fall 2015
Equine Science

Career/Program Overview

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, Light Horse Management, Western Horsemanship I & II, Hunt Seat Equitation I & II, Colt Starting, Equine Anatomy and Physiology, and Equine Business Practices.

Program/Degree Options

RCTC offers four credential options in Equine Science. A diploma and an Associate in Applied Science option are available in Riding/Training, a certificate in Horse Husbandry, and a Certificate in Equine Studies are offered.

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.

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.

Accreditations/Articulations

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

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

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

Additional Information

Program Website: http://www.rctc.edu/program/eqsc/  
Program Plan: http://www.rctc.edu/catalog/programs/  
More Information: http://www.rctc.edu/contact/
EQUINE SCIENCE:
HORSE HUSBANDRY
Certificate

I. Core Requirements .................................................................................................................. 29 Credits
   EQSC 1100, Introduction to Equine Science, 3 cr
   EQSC 1101, Light Horse Management, 3 cr
   EQSC 1103, Equine Anatomy, Physiology and Disease Management, 3 cr
   EQSC 1108, Stable Management Skills, 3 cr
   EQSC 1109, Horse Selection and Judging, 3 cr
   EQSC 1120, Equine Business Practices, 3 cr
   EQSC 1122, Horse Nutrition, 3 cr
   EQSC 1166, Hoof Care and Management, 1 cr
   EQSC 1177, Introduction to Equine Reproduction, 1 cr
   EQSC 1188, Current Topics in the Horse Industry, 2 cr
   EQSC 2100, Equine Science Co-op, 1 cr
   EQSC 1199, Equine Science Careers and Academic Skills, 3 cr

TOTAL.............................................................................................................................................. 29 Credits

The purpose of the Certificate in Equine Science Horse Husbandry is to provide one year of intensive equine courses that prepares students for careers in stable management, horse breeding, and horse care. Students may choose to use these skills to pursue horse husbandry as a lifelong learning experience. Students will have the skills to manage their own horse business, work for other professionals or pursue advanced training.

Revised: 02/10/2014
Implementation: Fall 2015
I. Minnesota Transfer Curriculum (MnTC) General Education Requirements………….16 Credits
Goal 1: Written and Oral Communication …………………………………………..7 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 1114, Fundamentals of Speech OR COMM 1130, Interpersonal Communications, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences …………………………………………..……………3 cr
Choose one Biology OR one Chemistry course:
BIOL 1100, Environmental Biology, 3 cr          BIOL 1220, Concepts of Biology, 4 cr
BIOL 1101, Elements of Biology, 3 cr          CHEM 1100, Chem in Our World Today, 3 cr
BIOL 1107, Fund Anatomy & Physiology, 4 cr          CHEM 1101, Elements of Chemistry, 3 cr
BIOL 1110, Human Biology, 4 cr          CHEM 1127, Chemical Principles I, 4 cr

Goal 4: Mathematics/Logical Reasoning ………………………….…………..3 cr
Credits from MnTC Goal 4

Goal 5: History and the Social and Behavioral Sciences …………….……….3 cr
Choose one:
ECON 1101, Introduction to Economics, 3 cr
ECON 2214, Microeconomics, 4 cr

II. Core Requirements………………………………………………………….…………….44 Credits
EQSC 1100, Intro to Equine Science, 3 cr          EQSC 1120, Equine Business Practices, 3 cr
EQSC 1101, Light Horse Management, 3 cr          EQSC 1124, Dressage Concepts, 3 cr
EQSC 1103, Anatomy and Physiology, 3 cr          EQSC 1199, Equine Science Careers, 3 cr
EQSC 1105, Colt Starting 3 cr          EQSC 2220, Teaching Techniques, 4 cr
EQSC 1109, Horse Selection & Judging, 4 cr          EQSC 1108, Stable Management, 3 cr
EQSC 1110, Western Horsemanship I, 3 cr          EQSC 1115, Hunt Seat Equitation I, 3 cr
EQSC 1111, Western Horsemanship II, 3 cr          EQSC 1116, Hunt Seat Equitation II, 3 cr

TOTAL……………………………………………………………………………………….......60 Credits

The purpose of the AAS in Equine Science Riding/Training program is to provide a two year broad based degree that prepares students to work as horse trainers, riding instructors, show coaches and/or other related occupations. Students will have the skills to manage their own home business, work for other professionals or pursue advanced training. Students may consider transfer options by working closely with a four-year institution of their choice.

Revised: 01/07/2016
Implementation: Spring 2016
EQUINE SCIENCE:
RIDING/TRAINING
Diploma

I. Core Requirements ........................................................................................................ 51 Credits

EQSC 1100, Introduction to Equine Science, 3 cr
EQSC 1101, Light Horse Management Theory, 3 cr
EQSC 1103, Equine Anatomy, Physiology and Disease Management, 3 cr
EQSC 1108, Stable Management Skills, 3 cr
EQSC 1109, Horse Selection and Judging, 3 cr
EQSC 1120, Equine Business Practices, 3 cr
EQSC 1122, Horse Nutrition, 3 cr
EQSC 1166, Hoof Care and Management, 1 cr
EQSC 1177, Introduction to Equine Reproduction, 1 cr
EQSC 1188, Current Topics in the Horse Industry, 2 cr
EQSC 1199, Equine Science Careers and Academic Skills, 3 cr
EQSC 2220, Teaching Techniques, 4 cr

Riding Courses:
EQSC 1105, Colt Starting, 4 cr
EQSC 1110, Western Horsemanship I, 3 cr
EQSC 1111, Western Horsemanship II, 3 cr
EQSC 1115, Hunt Seat Equitation I, 3 cr
EQSC 1116, Hunt Seat Equitation II, 3 cr
EQSC 1124, Dressage Concepts, 3 cr

TOTAL ................................................................................................................................ 51 Credits

The purpose of the Diploma in Equine Science Riding/Training is to provide one year of intensive equine courses that prepare students to work as horse trainers, riding instructors, show coaches, and/or other related occupations. Students may choose to use these skills to pursue horsemanship as a lifelong learning experience.

Revised: 04/28/2015
Implementation: Fall 2015
EQUINE STUDIES
Certificate

I. Core Requirements ............................................................................................................................................. 12 Credits

Choose any 12 credits from the EQSC curriculum. Courses include:

EQSC 1100, Introduction to Equine Science, 3 cr
EQSC 1101, Light Horse Management, 3 cr
EQSC 1103, Equine Anatomy, Physiology and Disease Management, 3 cr
EQSC 1105, Colt Starting, 4 cr
EQSC 1108, Stable Management Skills, 3 cr
EQSC 1109, Horse Selection and Judging, 3 cr
EQSC 1110, Western Horsemanship I, 3 cr
EQSC 1111, Western Horsemanship II, 3 cr
EQSC 1115, Hunt Seat Equitation I, 3 cr
EQSC 1116, Hunt Seat Equitation II, 3 cr
EQSC 1120, Equine Business Practices, 3 cr
EQSC 1122, Horse Nutrition, 3 cr
EQSC 1124, Dressage Concepts, 3 cr
EQSC 1166, Hoof Care and Management, 1 cr
EQSC 1177, Introduction to Equine Reproduction, 1 cr
EQSC 1188, Current Topics in the Horse Industry, 2 cr
EQSC 1199, Equine Science Careers and Academic Skills, 3 cr
EQSC 2220, Teaching Techniques, 4 cr

TOTAL.................................................................................................................................................................... 12 Credits

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: 02/10/2015
Implementation: Fall 2015
Graphic Design

Career/Program Overview

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

Curriculum-at-a-Glance


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; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, 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. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

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

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

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

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

Gainful Employment Programs

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.

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: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact
ART + DESIGN:  
GRAPHIC DESIGN  
Associate in Science

I. Minnesota Transfer Curriculum General Education Requirements ............30 Credits
   Goal 1: Written and Oral Communication................................................7 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Speech, OR COMM 1130, Interpersonal Communication, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ................................................................. 3 cr
   Credits from MnTC Goal 3

   Goal 4: Mathematics/Logical Reasoning .............................................. 3 cr
   MATH 1111, Contemporary Concepts in Mathematics, 3 cr
   OR higher level mathematics course that meets MnTC Goal 4

   Goal 5: History and the Social and Behavioral Sciences .................... 3 cr
   Credits from MnTC Goal 5

   Goal 6: The Humanities—the Arts, Literature and Philosophy ............12 cr
   ART 1111, Art History Survey I, 3 cr
   ART 1112, Art History Survey II, 3 cr
   ART 1121, 2D Design, 3 cr
   ART 1134, Drawing I, 3 cr

   MNTC General Education Electives................................................... 2 cr
   Credits from courses meeting MnTC competencies in Goal areas 1-10.

II. Professionally-related Requirements and Electives ...........................30 Credits
   Required:
   ART 1124, Graphic Design I, 3 cr
   ART 1130, Digital Art I, 3 cr
   ART 1223, Typography I, 3 cr
   ART 1232, Web Design I, 3 cr
   ART 2224, Graphic Design II, 3 cr
   ART 2230, Digital Art II, 3 cr
   ART 2240, Motion Graphics I, 3 cr
   ART 2292, Directed Studio, 3 cr
Electives – pick 2 of the following:
ART 1120, Computer as Creative Media, 3 cr
ART 1131, Presentation Graphics, 3 cr
ART 1184, Photography I, 3 cr
ART 1233, Web Design II, 3 cr
ART 2237, Animation and 3D Modeling, 3 cr

TOTAL …………………………………………………………………..………………………60 Credits

PURPOSE:
The purpose of the Graphic Design A.S. Degree Program is to provide the first two years of experience for transfer to any higher education institution for careers in Graphic Design. There are many opportunities in Graphic Design careers such as designing logos, posters, packaging, and promotional materials; working on layout for magazines, books, and publications; and creating advertisements.

An Articulation Agreement has been established between Rochester Community and Technical College and Minnesota State University, Moorhead. As a result, students will be able to transfer the Graphic Design Program as a package.

Revised: 07/31/2014
Implementation: Spring 2015
Group Fitness Instructor

Program Overview

RCTC offers two options for both Personal Trainer and Group Fitness Instructor Certification. The Personal Trainer 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 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 or Group Fitness Instructor
   Diploma Option
   Personal Trainer or Group Fitness Instructor
   Certificate
   Related Field Programs
   Sport Management
   Coaching

Program Start Date(s)

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

Career Opportunities/Information

RCTC’s Personal Trainer program will prepare students to work with individuals to assist them in improving their fitness levels, while the Group Fitness Instructor 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.

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.

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: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/pt-gfi/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
GROUP FITNESS INSTRUCTOR
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements................................4 Credits
   Goal 3: Natural Sciences
   Choose from one of the following:
   BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
   BIOL 1110, Human Biology, 4 cr
   BIOL 1217, Anatomy & Physiology I, 4 cr

II. Professional Core Requirements .........................................................................................24 Credits
   HLTH 1110, CPR/AED For the Professional Rescuer, 1 cr
   PHED 1105, Lifetime Fitness, 3 cr
   PHED 2240, Methods of Group Fitness, 3 cr
   PHED 2242, Essentials of Strength & Conditioning, 3 cr
   PHED 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 courses for a minimum of).................................5 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
   REC 2210, Recreation Program Leader, 3 cr

TOTAL ..................................................................................................................................33 Credits

Revised: 04/08/2016
Implementation: Fall 2016
GROUP FITNESS INSTRUCTOR
Certificate

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements………….. 4 Credits
   Goal 3: Natural Sciences
   Choose from one of the following:
   BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
   BIOL 1110, Human Biology, 4 cr
   BIOL 1217, Anatomy & Physiology I, 4 cr

II. Professional 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, 3 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 (HITT) 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
Health Information Management Careers

Career/Program Overview

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 Certificate, the Coding Specialist diploma, and the HIT AAS degree can all be completed entirely online.

Program Start Date(s)

Students can start HIT coursework any semester.

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.

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.

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.

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

Additional Information

Program Website: http://www.rctc.edu/program/hit/ Program Plan: http://www.rctc.edu/catalog/programs/ More Information: http://www.rctc.edu/contact/
HEALTH INFORMATION TECHNOLOGY
Associate in Applied Science

I. MN Transfer Curriculum (MnTC) General Education Requirements.........................minimum of 17 Credits

Goal 1: Written and Oral Communication .................................................................10 cr
ENGL 1109, Introduction to 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 & 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: The Humanities—the Arts, Literature, Philosophy .........................3 cr
PHIL 1135, Bioethics, 3 cr (Recommended)

II. Professionally Related Business Requirements..................................................47 Credits
BTEC 1620, Medical Terminology for Health Professions, 3 cr
BTEC 2355, Microsoft Business Applications, 4cr
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 3cr
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
Program Accreditation: The RCTC Health Information Technology program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM).

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

- RCTC Application for admission: www.rctc.edu/admissions/html/application_form.html
- Program Application: http://www.rctc.edu/program/hit/documents/MicrosoftWord-HIMC_Admission_Application_Form.pdf

NOTE: 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 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: 01/14/2016
Implementation: Fall 2016
Health Sciences Broad Field

Career/Program Overview

RCTC offers an Associate in Science degree in Health Science Broad Field which is designed as a transfer program. It 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 AS degree in Health Science Broad field is a 60 credit program. 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.

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.

Program/Degree Options

This 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. It was developed in collaboration with the four year MSNCU institutions with which it articulates.

Program Start Date(s)

This program admits students fall, spring, and summer semesters.

Career Opportunities/Information

The AS degree in Health Sciences Broad Field is designed to prepare individuals to transfer to a variety of baccalaureate degree programs.

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/

The AS degree in Health Sciences Broad Field articulates with the Bachelor of Science in Health Professions degree through the University of Minnesota Rochester.

It also has a statewide articulation with all MNSCU four year colleges for a variety of baccalaureate options.

Additional Information

Program Website: http://www.rctc.edu/program/hsbf/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact
Health Sciences Broad Field
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .................. 48 Credits

Goal 1: Written and Oral Communication ............................................................ 7 cr
ENGL 1117, Reading & Writing Critically I, 4 cr
COMM 2100, Intercultural Communications, 3 cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .................................................................................. 20 cr
BIOL 1220, Concepts of Biology, 4 cr
BIOL 2021, General Microbiology, 4 cr
BIOL 1217, Anatomy & Physiology I, 4 cr
BIOL 1218, Anatomy & Physiology II, 4 cr
CHEM 1117, General, organic and Biological Chemistry I, 4 cr

Goal 4: Mathematics/Logical Reasoning ......................................................... 7 cr
MATH 2208, Fundamentals of Statistics, 4 cr
MATH 1115, College Algebra, 3 cr

Goal 5: History and the Social and Behavioral Sciences ...................................... 10 cr
PSYC 2618, General Psychology, 4 cr
PSYC 2626, Human Growth and Development, 3 cr
SOC 1614, Introduction to Sociology, 3 cr

Goal 6: Humanities - the Arts, Literature and Philosophy .................................. 3 cr
PHIL 1135, Bioethics, 3 cr

II. Additional MNSCU Requirements ................................................................. 3 Credits
NUTR 1211, Principles of Nutrition, 3 cr

III. Electives (University of Minnesota Rochester Requirements) ................. 10 Credits
BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr
ENGL 1118, College Reading and Writing II, 4 cr
PHYS 1103, Principles of Physics, 3 cr
HLTH 1110 CPR/AED For the professional Rescuer (Health Care Provider), 1 cr

TOTAL .................................................................................................................... 60 Credits

Purpose: This is a general, introductory program in health sciences that prepares individuals for transfer to a variety of baccalaureate degree programs. It includes instruction in the basic sciences and aspects of subject matter related to various health occupations.

Articulation: This program articulates with the Bachelor of Science in Health Professions degree offered through the University of Minnesota Rochester. It meets the first two years of academic requirements for this degree. It also has a statewide articulation with all MNSCU four year colleges for a variety of baccalaureate options.

Health Unit Coordinator

Career/Program Overview

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

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.

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/huc/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
HEALTH UNIT COORDINATOR
Certificate

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ......at least 3 Credits
Choose one of the following:
Minnesota Transfer Curriculum Courses:
ENGL 1117, Reading and Writing Critically I, 4 cr
OR
Non-Minnesota Transfer Curriculum Course:
ENGL 1630, English Grammar, 3 cr

II. Professional Courses ....................................................................................................... 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, HUC Communications and Professional Issues, 3 cr
HUC 1524, Intro to Medications for the Health Unit Coordinator, 2 cr
HUC 1529, Health Unit Coordinator Internship, 4 cr
HUC 1530, Electronic Clinical Applications for the Health Unit Coordinator, 2 cr

III. Other ................................................................................................................................... 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

COURSE SEQUENCE:

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<th>Any Semester</th>
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Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at: https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a National Criminal background Study. Information about completing the background study will be available from program faculty.
PURPOSE: The Health Unit Coordinator major is designed to prepare students for careers in health care facilities which require the performance of a variety of office and communication skills. These duties include making special arrangements to meet client needs, scheduling appointments and tests according to doctors' orders, monitoring and ordering supplies, and transcribing doctors' orders to charts and other communication devices. Communicating effectively by telephone and in person with clients, visitors, and facility staff is an important part of the job. Employment may be found in hospitals, nursing homes, clinics, and in other health care facilities.

Revised: 12/09/2014
Implementation: Fall 2015
Healthcare Documentation Specialist

Career/Program Overview

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

Curriculum-at-a-Glance

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

Program/Degree Options

RCTC offers four degree options in the medical administrative assistant field. These include a Healthcare Documentation Specialist Certificate, a Medical Administrative Assistant Diploma, a Medical Administrative Assistant Associate in Applied Science degree and an Associate in Science degree.

Program Start Date(s)

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

Career Opportunities/Information

The Internet System for Education and Employment Knowledge www.iseek.org states that the median entry-level salary for medical administrative assistants is $19.99 per hour and in the US is $15.73 per hour. The median entry-level salary for healthcare documentation specialists in Minnesota is $20.71 per hour and in the U.S is $17.08 per hour.

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.

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/med/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
HEALTHCARE DOCUMENTATION SPECIALIST
Certificate

i. Professionally-Related Program 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

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding
skills at a minimum of 45 net wpm. Students not meeting this requirement should enroll in BTEC 1020
Keyboarding. This class will not count toward the required credits for the program.

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.

Revised: March 2015
Implementation: Fall 2015
Healthcare Informatics

Career/Program Overview

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 Certificate, the Coding Specialist diploma, and the HIT AAS degree can all be completed entirely online.

Program Start Date(s)

Students can start HIT coursework any semester.

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.

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.

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.

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

Additional Information

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

I. Professionally Related Program Requirements.............................................. 32 Credits
BTEC 1620, Medical Terminology: Body Systems and Diseases, 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

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

- 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)

Revised: 1/14/2016
Implementation: Fall 2016
Histology Technician

Career/Program Overview

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 School of Health Sciences.

Program/Degree Options

RCTC offers an Associate of Science degree in Histology Technician.

Program Start Date(s)

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

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

Career Opportunities/Information

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

Accreditations/Articulations

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

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

All courses are offered through RCTC and MSHS.

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

Additional Information

Program Website:
http://www.mayo.edu/mshs/careers/histology-technician/histology-technician-minnesota
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
HISTOLOGY TECHNICIAN
Associate in Science
An Affiliated Program with the Mayo School of Health Sciences

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements…………30 Credits
   Goal 1: Written and Oral Communication……………………………………..7 cr
       ENGL 1109, Technical Report Writing, 3 cr
       ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 3: Natural Science.................................................................................... 12 cr
       BIOL 1217 and 1218, Anatomy and Physiology I and II, 8 cr
       CHEM 1117, General, Organic and Biological Chemistry I, 4 cr
       OR
       CHEM 1127, Chemical Principles I, 4 cr

   Goal 4: Mathematics/Logical Reasoning .................................................... 3 cr
       MATH 1115, College Algebra, 3 cr

   Goal 5: History and the Social and Behavioral Sciences .........................4 cr
       PSYC 2618, General Psychology, 4 cr

   Goal 6: The Humanities – the Arts, Literature and Philosophy ..............3 cr
       Recommended:
       PHIL 1135, Bioethics, 3 cr
       OR
       PHIL 1125, Ethics, 3 cr

   MnTC General Education Electives............................................................1 cr
       Credits chosen from courses meeting MnTC competencies in Goal areas 1-10

II. Professional Core Requirements .................................................................30 Credits
       BTEC 1610, Medical Terminology: Body Systems and Diseases, 2 cr
       CHEM 1118, General, Organic and Biochemistry II, 4 cr
       OR
       CHEM 1128, Chemical Principles II, 4 cr
       CONSORTIUM, Histology Tech core curriculum transfer, 24 cr

TOTAL...........................................................................................................60 Credits

Revised: 10/15/2015
Implementation: Fall 2015
Horticulture

Career/Program Overview

The RCTC Horticulture Technology program offers training for environmental careers in the green industry. Working with plants and people in an outdoor environment offers exciting and rewarding career opportunities. Graduates will qualify for jobs in: Greenhouse Management, Landscape Maintenance, Golf Course Turf Management, Tree Care and Urban Forestry, Landscape Design and Install, Floral Design, and Retail and Wholesale Sales.

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

Curriculum-at-a-Glance


Program/Degree Options

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

Program Start Date(s)

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

Career Opportunities/Information

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

Gainful Employment Programs

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.

Accreditations/Articulations

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

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: http://www.rctc.edu/catalog/articulations/index.html

Additional Information

Program Website: http://www.rctc.edu/program/hort/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
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 & 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, General Inorganic Chemistry, 4 cr
   PHYS 1101, Elements of Physics, 3 cr

   Goal 4: Mathematics/Logical Reasoning ........................................................................ 3 cr
   MATH 1115, College Algebra, 3 cr

   Goal 5: History and the Social and Behavioral Sciences .............................................. 7 cr
   ECON 2214, Principles of Economics: Microeconomics, 4 cr
   MCOM 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 for a total of 6 credits

II. Horticulture 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 Credits
   Any course prefixed HORT, HTFL, HTLS or any MnTC course approved by a Horticulture Advisor.

IV. Required Business Elective .......................................................................................... 3 Credits
   BUS 1144, Opening & Managing a Business, 3 cr

TOTAL ..................................................................................................................................... 60 Credits

Revised: 11/19/2015
Implementation: Fall 2016
HORTICULTURE TECHNOLOGY
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements……………………..15 Credits

Goal 1: Written and Oral Communication.................................................................3 cr
Credits from MnTC Goal 1

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .........................................................................................3 cr
BIOL 1102, Plant Biology, 3 cr

Goal 5: History and the Social and Behavioral Sciences ..................................3 cr
Credits from MnTC Goal 5

Goal 6: Humanities—the Arts, Literature, Philosophy ......................................3 cr
Credits from MnTC Goal 6

Electives.............................................................................................................3 cr
Three credits chosen from courses meeting the Minnesota Transfer Curriculum competencies in Goal areas 1-10.

II. Professional Program-Related Requirements.....................................................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-Herb 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. Technical Electives...........................................................................................17 Credits

17 credits chosen from the following:
HORT 1325, Urban Forestry, 3 cr
HORT 2301, Directed Study, 1 cr
HORT 2302, Directed Study, 2 cr
HORT 2390, World Horticulture, 2 cr
HTFL 1328, Floral Design and Merchandising, 3 cr
HTFL 2341, Greenhouse Crop Production, 4 cr
HTFL 2342, Interior Plants and Plantscaping, 3 cr
HTLS 1322, Turf and Landscape Maintenance, 4 cr
HTLS 2110, Introductory Tree Climbing, 1 cr
TOTAL 60 Credits

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
HORTICULTURE TECHNOLOGY:  
FLORICULTURE/GARDEN CENTER  
Diploma

I. Minnesota Transfer Curriculum General Education Requirements ........................................... 8 Credits  
   Goal 3: Natural Sciences ......................................................................................................... 3 cr  
   BIOL 1102, Plant Biology, 3 cr

Additional General Education Requirements ................................................................. 5 cr  
Students may choose additional credits from MNTC Goals 1-10 or any other college  
course numbered 1000 or above other than courses from HORT, HTFL or HTLS.

II. Professional Core Requirements ......................................................................................... 38 Credits  
   HORT 1310, Soil Science, 3 cr  
   HORT 1315, Plant Materials I-Woody Plants, 3 cr  
   HORT 1318, Introduction to Turfgrass Mgmt, 3 cr  
   HORT 1320, Plant Materials II-Herbaceous Plants, 3 cr  
   HORT 1323, Introduction to Horticulture, 3 cr  
   HORT 2303, Horticulture Internship, 3 cr  
   HORT 2330, Plant Propagation, 4 cr  
   HORT 2335, Landscape Design, 3 cr  
   HORT 2350, Integrated Plant/Pest Management, 2 cr  
   HORT 2399, Horticulture Seminar, 1 cr  
   HTFL 1328, Floral Design and Merchandising, 3 cr  
   HTFL 2341, Greenhouse Crop Production, 4 cr  
   HTFL 2342, Interior Plants and Plantscaping, 3 cr

III. Technical Electives ........................................................................................................... 6 Credits  
     Choose 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 Management, 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
PURPOSE: The Horticulture Technology Floriculture/Garden Center Technician Diploma 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
HORTICULTURE TECHNOLOGY: 
LANDSCAPE, GOLF COURSE & GROUNDS MAINTENANCE
Diploma

I. Minnesota Transfer Curriculum General Education Requirements ........................................ 8 Credits
   Goal 3: Natural Sciences ........................................................................................................ 3 cr
   BIOL 1102, Plant Biology, 3 cr

   Additional General Education Requirements ................................................................. 5 cr
   Students may choose additional credits from MNTC Goals 1-10 or any other college course numbered 1000 or above other than courses from HORT, HTFL or HTLS.

II. Professional Core Requirements .......................................................................................... 38 Credits
   HORT 1310, Soil Science, 3 cr
   HORT 1323, Introduction to Horticulture, 3 cr
   HORT 1315, Plant Materials I-Woody Plants, 3 cr
   HORT 1318, Introduction to Turfgrass Mgmt, 3 cr
   HORT 2335, Landscape Design, 3 cr
   HORT 1320, Plant Materials II-Herbaceous Plants, 3 cr
   HORT 2330, Plant Propagation, 4 cr
   HORT 2350, Integrated Plant/Pest Management, 2 cr
   HORT 2399, Horticulture Seminar, 1 cr
   HTLS 1322, Turf and Landscape Management, 4 cr
   HTLS 2332, Arboriculture, 3 cr
   HTLS 2345, Golf Course Field Operations, 3 cr
   HORT 2303, Horticulture Internship, 3 cr

III. Technical Electives ............................................................................................................... 6 Credits
   Any course prefixed HTFL or any MNTC or Allied Studies Course approved by Horticulture Advisor.
   HORT 2301, HORT 2302 Directed Study, HORT 2390 World Horticulture.

TOTAL .................................................................................................................................... 52 Credits

PURPOSE: The Horticulture Technology Landscape, Golf Course, Grounds Maintenance Technician 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
Human Services

Career/Program Overview

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

The program provides individuals with practical training in mental health, chemical health, and disabilities fields. Individuals may also enter the program to continue their education, to gain knowledge of new developments and techniques, or to obtain career advancement. 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.

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

Articulations/Articulations

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

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

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

Additional Information

Program Website: [http://www.rctc.edu/program/hs/](http://www.rctc.edu/program/hs/)
Program Plan: [http://www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)
More Information: [http://www.rctc.edu/contact/](http://www.rctc.edu/contact/)
HUMAN SERVICES SPECIALIST
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ............... 32 Credits
   
   Goal 1: Written and Oral Communication ............................................................... 7 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Speech, 3 cr OR COMM 1130 Interpersonal Communication, 3 cr
   
   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ................................................................. 4 cr
   BIOL 1110, Human Biology, 4 cr

   Goal 5: History and the Social and Behavioral Sciences ......................... 10 cr
   PSYC 2618, General Psychology, 4 cr
   PSYC 2626, Human Growth & Development, 3 cr
   SOC 1614, Introduction to Sociology, 3 cr

   Goal 6: The Humanities - the Arts, Literature, and Philosophy ............... 3 cr
   Credits from MnTC Goal 6

   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

III. Professional Program-Related Courses ......................................................... 28 Credits
   
   NA 1500, Nursing Assistant Theory & Clinical, 4 cr
   HS 1511, Medication Admin for Unlicensed Personnel, 2 cr
   HS 1522, Introduction to Human Services, 3 cr
   HS 1530, Health Issues, 2 cr
   HS 1532, Therapeutic Techniques, 2 cr
   HS 1550, Mental Health Disorders for HST Workers, 2 cr
   HS 1560, Chemical Dependency Theory, 2 cr
   HS 1570, Developmental Disabilities Theory, 2 cr
   HS 1555, Mental Health Field Experience, 3 cr
   HS 1565, Chemical Dependency Field Experience, 3 cr
   HS 1575, Developmental Disabilities Field Experience, 3 cr

TOTAL ................................................................................................. 60 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions
complete an annual background study with the Minnesota Department of Human Services. Individuals who
do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying
offenses is available at: https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

PURPOSE: This program is designed to provide an opportunity for individuals interested in working in human services to continue their education, gain increased knowledge and fulfill career advancement objectives. An Associate in Science Degree will be earned upon completing the Human Services Technician Diploma program and the required general education courses.

OCCUPATIONAL OBJECTIVES: The human services profession offers various employment options for qualified persons. Possible career choices include such job titles as mental health worker, case manager, resident counselor, unit coordinator, job coach and chemical dependency technician. Employment opportunities exist in state, county private, and community related human service programs providing services to individuals focusing on areas of chemical dependency, mental impairments, mental health issues, geriatrics, and/or physical impairments.

Revised: 04/27/2016
Implementation: Fall 2016
HUMAN SERVICES TECHNICIAN
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Courses ......................... 8 Credits
   Goal 1: Written and Oral Communication ............................................................... 4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 5: History and the Social and Behavioral Sciences .......... 4 cr
   PSYC 2618, General Psychology, 4 cr

II. Professional Program-Related Courses ................................................................. 28 Credits
   NA 1500, Nursing Assistant Theory & Clinical, 4 cr
   HS 1511 Medication Admin for Unlicensed Personnel, 2 cr
   HS 1522, Introduction to Human Services, 3 cr
   HS 1530, Health Issues, 2 cr
   HS 1532, Therapeutic Techniques, 2 cr
   HS 1550, Mental Health Disorders for HST Workers, 2 cr
   HS 1560, Chemical Dependency Theory, 2 cr
   HS 1570, Developmental Disabilities Theory, 2 cr
   *HS 1555, Mental Health Field Experience, 3 cr
   *HS 1565, Chemical Dependency Field Experience, 3 cr
   *HS 1575, Developmental Disabilities Field Experience, 3 cr

   *Must be completed prior to field experience

TOTAL ................................................................................................................................... 36 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed
institutions complete an annual background study with the Minnesota Department of Human
Services. Individuals who do not pass the background check will not be allowed to participate in
clinical activities. A list of disqualifying offenses is available
at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the
background study will be available from program faculty.

PURPOSE: The 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 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.

Revised: 04/27/2016
Implementation: Fall 2016
Individualized Studies

Career/Program Overview

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: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/individualized-studies/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
INDIVIDUALIZED STUDIES
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements…………….30 Credits
   Goal 1: Written and Oral Communication .............................................................7 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Public Speaking OR COMM 1130, Interpersonal Communication, 3 Cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNCT 1-10 GOALS

   Goal 3: Natural Sciences
   Credits from MnTC Goal 3
   OR
   Goal 4: Mathematics/Logical Reasoning ............................................................3 cr
   Credits from MnTC Goal 4

   Goal 5: History and the Social and Behavioral Sciences .................................3 cr
   Credits from MnTC Goal 5

   Goal 6: Humanities—the Arts, Literature, and Philosophy ............................3 cr
   Credits from MnTC Goal 6

   MNTC General Education Electives.................................................................14 cr
   Select any MNTC approved courses from the above areas. With at least one 3-credit
   selection from courses in Goals 7-10.

   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

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
Laboratory Science

Career/Program Overview

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 through the University of North Dakota or Clinical Laboratory Science through the University of Minnesota-Rochester.

Curriculum-at-a-Glance

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

Program/Degree Options

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

Program Start Date(s)

Students can begin general education requirements any semester.

Career Opportunities/Information

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

Accreditations/Articulations

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

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/laboratory-science/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
LABORATORY SCIENCE
Associate in Science

This program is articulated with the Bachelor of Science degree in Clinical Laboratory Science offered by the University of North Dakota. Students who complete this program can continue next two years of study at UND and receive a Bachelor of Science degree in CLS.

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements …………30 Credits
   Goal 1: Written and Oral Communication ..............................................................10 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   ENGL 1109, Introduction to Technical Communication, 3 cr
   (ENGL 1118, Reading & Writing Critically II, 4 cr may be substituted for ENGL 1109)

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences .................................................................................. 8 cr
   BIOL 1220, Concepts of Biology, 4 cr
   CHEM 1127, Chemical Principles I, 4 cr

   Goal 4: Mathematics/Logical Reasoning ......................................................... 3 cr
   MATH 1115, College Algebra, 3 cr

   Goal 5: History and the Social and Behavioral Sciences ......................6 cr
   Choose any one class from each Psychology & Sociology
   PSYC 1611, Psychology of Adjustment, 3 cr (recommended)
   SOC 1614, Introduction to Sociology, 3 cr (recommended)

   Goal 6: Humanities – the Arts, Literature and Philosophy .........................3 cr
   Choose one class from MnTC Goal 6
   PHIL 1125, Ethics, 3 cr (recommended)

II. Professional Core Requirements ................................................................. 30 Credits
   BIOL 1217, Anatomy and Physiology I, 4 cr
   BIOL 1218, Anatomy and Physiology II, 4 cr
   BIOL 1230, Survey of Life Forms, 4 cr
   BIOL 2021, Microbiology, 4 cr
   BTEC 1600, Introduction to Medical Terminology, 2 cr
   CHEM 1118, General, Organic and Biological Chemistry II, 4 cr
   CHEM 1128, Chemical Principles, 4 cr
   CHEM 2100, Survey of Organic Chemistry, 4 cr

TOTAL .............................................................................................................60 Credits

Revised: 03/01/2012; Implementation: Fall 2012
Law Enforcement

Career/Program Overview

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

Curriculum-at-a-Glance


Program/Degree Options

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

Program Start Date(s)

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

The skills program starts at the beginning of the spring semester. Students will need to pass a physiological exam to be eligible to enroll in the skills program. Students interested in attending need to register for these courses in October. Students will also need to pass a physical fitness test to attend defensive tactics.

Career Opportunities/Information

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

Gainful Employment Programs

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.

Accreditations/Articulations

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

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

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

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

Additional Information

Program Website: http://www.rctc.edu/program/lawe/ Program Plan: http://www.rctc.edu/catalog/programs/ More Information: http://www.rctc.edu/contact/
LAW ENFORCEMENT
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements…………16 Credits
   Goal 1: Written and Oral Communication ………………………………………..4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr
   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences
   Recommended: CHEM 1031, Introduction to Forensic Chemistry, 3 cr
   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, Philosophy ……………………..3 cr
   Recommended: ART 1184, Photography, 3 cr
   OR Credits from MnTC Goal 6

II. Professional Program-Related Requirements………………………………….30 Credits
   LAWE 1105, Introduction to Law Enforcement, 3 cr
   LAWE 1112, Introduction to Criminal Investigations, 4 cr
   LAWE 1115, Basic Firearms, 2 cr
   LAWE 2110, Police Report Writing, 2 cr
   LAWE 2119, Minnesota Criminal and Traffic Statutes, 3 cr
   LAWE 2121, Human Behavior and Ethics in Law Enforcement, 3 cr
   LAWE 2122, Criminal Procedure, 3 cr
   LAWE 2127, Juvenile Law & Procedures, 3 cr
   LAWE 2140, Patrol Operations, 2 cr
   CRJU 1215, Homeland Security/Defense, 3 cr
   EMC 1121, First Responder, 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
*Tuition differential associated with these courses*

III. **Health and Physical Education Requirements** ................................................. 4 Credits

Four credits of PHED activity courses are required.

**Required:** PHED 1189, Boot Camp, 1 cr

**Recommended:** PHED 1122, Circuit Training, 1 cr

**TOTAL**................................................................................................................. 60 Credits

**Notice of Minnesota Background Check Requirement**

Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at [https://www.revisor.mn.gov/statutes/?id=245C.15](https://www.revisor.mn.gov/statutes/?id=245C.15). Information about completing the background study will be available from program faculty.

**Program requirements:**

Grade of “C” or better is required of all general education and Law Enforcement course requirements.

Revised: 10/15/2015
Implementation: Fall 2015
LAW ENFORCEMENT  
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements 
   ........................................................................................................30 Credits
   Goal 1: Written and Oral Communication ..................................................4 cr
   ENGL 1117, Reading and Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ...........................................................................3 cr
   Recommended: CHEM 1031, Introduction to Forensic Chemistry, 3 cr
   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
   SOC 1614, Introduction to Sociology, 3 cr
   PSYC 1611, Psychology of Adjustment, 3 Cr OR PSYC 2618, General Psychology, 4 Cr
   SOC 2625, Minority Group Relations, 3 cr

   Goal 6: Humanities—the Arts, Literature, Philosophy ..................................3 cr
   Recommended: ART 1184, Photography I, 3 cr
   OR Credits from MnTC Goal 6

   Electives: MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS .............8 cr

II. Professional Program-Related Requirements .............................................27 Credits
   LAWE 1105, Introduction to Law Enforcement, 3 cr
   LAWE 1112, Introduction to Criminal Investigations, 4 cr
   LAWE 1115, Basic Firearms, 2 cr
   LAWE 2110, Police Report Writing, 2 cr
   LAWE 2119, Minnesota Criminal and Traffic Statutes, 3 cr
   LAWE 2121, Human Behavior and Ethics in Law Enforcement, 3 cr
   LAWE 2122, Criminal Procedure, 3 cr
   LAWE 2127, Juvenile Law & Procedures, 3 cr
   LAWE 2140, Patrol Operations, 2 cr
   EMC 1121, First Responder, 2 cr

III. SKILLS courses ..........................................................................................10 Credits
   *LAWS 2101, Crime Scene Processing, 2 cr
   *LAWS 2102, Traffic Enforcement, 2 cr
   *LAWS 2103, Defensive Tactics, 2 cr
   *LAWS 2104, Firearms for SKILLS, 2 cr
   *LAWS 2105, Patrol Practicals, 2 cr
*Tuition differential associated with these courses

IV. Health and Physical Education Requirements

Required: PHED 1189, Boot Camp, 1 cr

TOTAL

68 Credits

Notice of Minnesota Background Check Requirement

Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Program requirements:

Grade of “C” or better is required of all general education and Law Enforcement course requirements.

Revised: 10/15/2015
Implementation: Fall 2015
LAW ENFORCEMENT
Certificate

I. Professional Program-Related Requirements ............................................. 18 Credits
   LAWE 1115, Basic Firearms, 2 cr
   LAWE 2110, Police Report Writing, 2 cr
   LAWE 2119, Minnesota Criminal and Traffic Statues, 3 cr
   LAWE 2121, Human Behavior and Ethics in Law Enforcement, 3 cr
   LAWE 2122, Criminal Procedure, 3 cr
   LAWE 2127, Juvenile Law and Procedures, 3 cr
   LAWE 2140, Patrol Operations, 2 cr

II. SKILLS courses ......................................................................................... 10 Credits
    *LAWS 2101, Crime Scene Processing, 2 cr
    *LAWS 2102, Traffic Enforcement, 2 cr
    *LAWS 2103, Defensive Tactics, 2 cr
    *LAWS 2104, Firearms for SKILLS, 2 cr
    *LAWS 2105, Patrol Practicals, 2 cr
    *Tuition differential associated with these courses

III. Health and Physical Education Requirements .............................................. 1 Credit
    Required: PHED 1189, Boot Camp, 1 cr

TOTAL ............................................................................................................. 29 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov-statutes?id=245C.15. Information about completing the background study will be available from program faculty.

Program Admission Requirements:
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 requirements:
Grade of “C” or better is required of all general education and Law Enforcement course requirements.
Revised: 02/10/2015; Implementation: Fall 2015
Liberal Arts and Sciences

Career/Program Overview

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: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.rctc.edu/program/liberal-arts/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
LIBERAL ARTS AND SCIENCES
Associate in Arts

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .................. 40 Credits

Goal 1: Written and Oral Communication ................................................................. 11 cr
ENGL 1117, Reading and Writing Critically I, 4 cr
ENGL 1118, Reading and Writing Critically II, 4 cr
COMM 1114, Fundamentals of Public Speaking OR COMM 1130, Interpersonal Communication, 3 Cr

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences ................................................................. minimum of 6 cr
A minimum of 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

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 & the Environment

II. Health and Physical Education Requirements ....................................................... 3 Credits
Any combination of Health courses (numbered 1102, 1109, 1110, 1111, 1114, 1132, 1135, 2126) and/or Physical Education Courses (numbered 1100-1199). 1 credit may be from Varsity Athletics, (PHED 1210 – 1236; PHED 2210 – 2236).

First Year Experience, 1 cr*

*FYEX 1000, College Success Strategies, required of some entering students.

III. Electives: Any course numbered above 1000 ...................................................... 17 Credits

IV. TOTAL ........................................................................................................ 60 Credits

Revised: 03/23/2016: Implementation: Fall 2016
Medical Administrative Assistant

Career/Program Overview

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

Curriculum-at-a-Glance

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

Program/Degree Options

RCTC offers four degree options in the medical administrative assistant field. These include a Healthcare Documentation Specialist Certificate, a Medical Administrative Assistant Diploma, a Medical Administrative Assistant Associate in Applied Science degree and an Associate in Science degree.

Program Start Date(s)

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

Career Opportunities/Information

The Internet System for Education and Employment Knowledge www.iseek.org states that the median entry-level salary for medical administrative assistants is $19.99 per hour and in the US is $15.73 per hour. The median entry-level salary for healthcare documentation specialists in Minnesota is $20.71 per hour and in the U.S is $17.08 per hour.

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.

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/med/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
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 Behavioral Sciences ......................... 3 cr
PSYC 1611, Psychology of Adjustment, 3 cr
PSYC 2618, General Psychology, 4 cr

Goal 6: The 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. Professionally-Related Business 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 Workplace Technology, 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

NOTE: 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.

NOTE: 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.

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.

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
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 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 Behavioral Sciences ......................... 3 cr
  PSYC 1611, Psychology of Adjustment, 3 cr
  PSYC 2618, General Psychology, 4 cr

  Goal 6: The 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 cr

Students may choose additional elective credits from Goals 1-10 to meet the MnTC general education requirements.

III. Professionally-Related Business Requirements ..................................30 Credits

  BTEC 1220, Human Relations in Organizations, 3 cr
  BTEC 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
Choose one of the following:
BTEC 1030 Keyboarding Speed and Accuracy, 1 cr
BTEC 2660, Job Shadow Experience, 1 cr
BTEC 2880, Creating and Showcasing a Professional Portfolio, 1 cr

TOTAL......................................................................................................................... 60 Credits

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1020 Keyboarding Speed and Accuracy. This class will not count toward the required credits for the program.

NOTE: 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.

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.

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
I. Professionally-Related Business Requirements .......................................................38 Credits

BTEC 1220, Human Relations in Work 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, 3 cr
BTEC 2622, Current Workplace Technology, 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 ........................................................................................................................................38 Credits

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in key-boarding 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.

NOTE: 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.

Purpose: Students will be trained for healthcare documentation specialist, transcriptionist, and office support positions in medical offices, clinics, hospitals, insurance companies, and firms who provide medical supplies and equipment. It stresses extensive building of medical terminology and a highly developed skill in medical transcription as well as general office skills and technology training. Medical letters to referring physicians, along with reports on the medical record regarding the patients’ examinations, operations, and tests are emphasized. Students will learn how diseases affect the body and which drugs and other treatments are used to treat illnesses.
Notice of National Criminal Background Check Requirement for Job Shadow 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
Mental Health Assistant

Career/Program Overview

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

The program provides individuals with practical training in mental health, chemical health, and disabilities fields. Individuals may also enter the program to continue their education, to gain knowledge of new developments and techniques, or to obtain career advancement. 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.

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.

Articulations/Articulations

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

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

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

Additional Information

Program Website: http://www.rctc.edu/program/hs/  
Program Plan: http://www.rctc.edu/catalog/programs/  
More Information: http://www.rctc.edu/contact/
HUMAN SERVICES TECHNICIAN:
Mental Health Assistant
Certificate

I. RCTC General Education: Allied Studies
Area 11: Health and Wellness

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLTH 1109, Community CPR/First Aid &amp; Safety</td>
<td>1 cr</td>
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</table>

II. Major Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA 1500, Nursing Assistant Theory and Clinical</td>
<td>3 cr</td>
</tr>
<tr>
<td>HS 1511, Medication Administration for Unlicensed Personnel</td>
<td>2 cr</td>
</tr>
<tr>
<td>HS 1550, Mental Health Disorders for HST Workers</td>
<td>2 cr</td>
</tr>
<tr>
<td>HS 1555, Mental Health Field Experience</td>
<td>3 cr</td>
</tr>
</tbody>
</table>

TOTAL 11 Credits

Notice of Minnesota Background Check Requirement

Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at: https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

Revised: 02/24/2010
Mobile Application Development
Motion Graphics

Career/Program Overview

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

Curriculum-at-a-Glance


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; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, 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. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

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

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

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

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

Gainful Employment Programs

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.

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: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact
ART + DESIGN
MOBILE APPLICATION DEVELOPMENT
Certificate

I. Core Requirements ........................................................................................................24 Credits
   ART 1124, Graphic Design I, 3 cr
   ART 1232, Web Design I, 3 cr
   ART 1233, Web Design II, 3 cr
   BUS 2144, Introduction to E-Business, 3 cr
   COMP 1731, Programming for the Internet, 3 cr
   COMP 1741, JavaScript, 3 cr
   COMP 1751, Mobile Application Development, 3 cr
   ENGL 1109, Introduction to Technical Communication, 3 cr

   TOTAL........................................................................................................................................24 Credits

PURPOSE:
The purpose of the Mobile Application Development Certificate is to introduce students to specialized knowledge of applications for web and mobile devices. Students will explore web and native language frameworks that are most commonly used in developing applications for mobile devices. Students explore: Interactive design for the web; web and mobile programming; technical and E-business communications practices.

Revised: 07/31/2014
Implementation: Spring 2015
ART + DESIGN:
MOTION GRAPHICS
Certificate

I. Core Requirements .............................................................................................................................................. 24 Credits
   ART 1120, Computer as Creative Media, 3 cr
   ART 1124, Graphic Design I, 3 cr
   ART 1130, Digital Art I, 3 cr
   ART 1232, Web Design I, 3 cr
   ART 1233, Web Design II, 3 cr
   ART 2237, Animation and 3D Modeling, 3 cr
   ART 2240, Motion Graphics I, 3 cr
   ART 2241, Motion Graphics II, 3 cr

   TOTAL .............................................................................................................................................................. 24 Credits

PURPOSE: The purpose of the Motion Graphics Certificate Program is to introduce students to the concepts and techniques needed for a motion graphic designer. Students explore image creation, designing for the web, and animation and motion graphics.

This certificate provides students who already have a degree a topic of study as a designer. This certificate is also a great access point to begin the Interaction Design Associate of Science (two-year) Degree Program.

Revised: 07/31/2014
Implementation: Spring 2015
Music

Career/Program Overview

RCTC offers an Associate in Fine Arts degree in Music and an Associate in Fine Arts degree in Music Creative Technologies.

RCTC also offers a Certificate in Music Technology.

Curriculum-at-a-Glance

Depending on the program options selected, courses may include: Electronic Music Composition I & II, Audio Production I & II, Music, Video, Lights I & II, Music Production, Class Piano, Class Voice, Class Guitar, Musicianship I – IV, Concert Choir, Concert Band, and World Drum Ensemble. We offer private lessons in piano, voice, woodwinds, brass, strings, and percussion. The music technology and creative media courses feature hands-on use of state-of-the-art music and media studios that incorporate projected visual media and DMX-controlled lighting.

Program/Degree Options

RCTC offers a 60-credit Associate in Fine Arts (AFA) in Music which prepares students to transfer to a baccalaureate program in music education, music composition, music performance, and music therapy.

The 60-credit Associate in Fine Arts (AFA) in Music Creative Technologies prepares students to transfer to a baccalaureate program in (1) Sound Engineering (audio, video, web); (2) Studio Performance; (3) Music composition; (4) Music Business; (5) Music Production, and (6) Music Education.

Program Start Date(s)

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

Career Opportunities/Information

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

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

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

Gainful Employment Programs

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.

Accreditations/Articulations

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

RCTC’s Associate in Fine Arts degrees in Music and Music Creative Technologies articulated at Minnesota State University, Mankato.

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

Additional Information

Program Website: http://www.rctc.edu/program/music/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
MUSIC
Associate in Fine Arts

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements………….30 Credits
   Goal 1: Written and Oral Communication ………………………………………………………7 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ………………………………………………………………………3 cr
   Credits from MnTC Goal 3

   Goal 4: Mathematics/Logical Reasoning……………………………………………….3 cr
   Credits from MnTC Goal 4

   Goal 5: History and the Social and Behavioral Sciences ……………………..3 cr
   Credits from MnTC Goal 5

   Goal 6: The Humanities—the Arts, Literature and Philosophy ……………14 cr
   MUSC 1101, Music Appreciation, 3 cr
   MUSC 1302 or MUSC 1401, Concert Band/Choir, 1 cr (repeat 4 semesters), 4 cr
   MUSC 1501, Musicianship I, 4 cr
   MUSC 1601, Electronic Music Composition I, 3 cr

II. Professionally-Related Requirements…………………………………………………………..30 Credits
   Advanced Music Theory……………………………………………………………………12 cr
   MUSC 1502, Musicianship II, 4 cr
   MUSC 2501, Musicianship III, 4 cr
   MUSC 2502, Musicianship IV, 4 cr

   Music and Society………………………………………………………………………………9 cr
   MUSC 1221, Popular Music in the US, 3 cr
   MUSC 1231, World Music, 3 cr
   MUSC 1241, Movies and Composers, 3 cr

   Small Ensemble (Select 2 credits from the following ensembles)………………2 cr
   MUSC 1321, Aires, 1 cr
   MUSC 1322, Jazz Band, 1 cr
   MUSC 1340, World Drum Ensemble, 1 cr
**Class Instrument/Voice Study (Select one)..................................................3 cr**
- MUSC 1401, Beginning Class Piano, 3 cr
- MUSC 1421, Beginning Class Voice, 3 cr
- MUSC 1431, Beginning Class Guitar, 3 cr

**Private Primary Instrument/Voice Study....................................................4 cr**
- MUSC 1440, Applied Music – Instrumental: String, 1 cr
- MUSC 1450, Applied Music – Vocal, 1 cr
- MUSC 1460, Applied Music – Instrumental: Piano, 1 cr
- MUSC 1470, Applied Music – Instrumental: Woodwind, 1 cr
- MUSC 1480, Applied Music – Instrumental: Brass, 1 cr
- MUSC 1490, Applied Music – Instrumental: Percussion, 1 cr

**TOTAL...........................................................................................................60 Credits**

**PURPOSE:** The purpose of the Music degree is to provide the first two years of experience for transfer to any music institution for careers in the following areas: (1) Music Education; (2) Music Performance; (3) Music Therapy, and; (4) other music career programs. The potential careers are many.

Revised: 03/10/2015
Implementation: Fall 2015
MUSIC CREATIVE TECHNOLOGIES
Associate in Fine Arts

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ..........30 Credits
   Goal 1: Written and Oral Communication .........................................................7 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences.................................................................................3 cr
   Credits from MnTC Goal 3

   Goal 4: Mathematics/Logical Reasoning..........................................................3 cr
   Credits from MnTC Goal 4

   Goal 5: History and the Social and Behavioral Sciences..............................3 cr
   Credits from MnTC Goal 5

   Goal 6: The Humanities—the Arts, Literature and Philosophy .................14 cr
   MUSC 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

II. Professionally-Related Requirements.............................................................30 Credits
   MUSC 1003, Music, Video, Lights II, 3 cr
   MUSC 1401, Beginning Class Piano, 3 cr
   MUSC 1402, Beginning Class Voice, 3 cr
   MUSC 1450 and/or MUSC 1460: Applied Music (each 1 credit), 2 cr
   MUSC 1501, Musicianship I, 4 cr
   MUSC 1502, Musicianship II, 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

TOTAL..................................................................................................................60 Credits

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: 04/12/2016
Implementation: Fall 2016
MUSIC TECHNOLOGY
Certificate

I. 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

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
Natural Science

Career/Program Overview

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

Curriculum-at-a-Glance


Program/Degree Options

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

Program Start Date(s)

Students can begin general education requirements any semester.

Career Opportunities/Information

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

Accreditations/Articulations

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

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

Additional Information

Program Website: http://www.rctc.edu/program/natural-science/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
NATURAL SCIENCE
Associate in Science

This two-year degree includes basic science curriculum required for admission by medical schools. Check with the medical school(s) of your choice to ensure that their specific requirements are fulfilled.

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .......... 31 Credits
   Goal 1: Written and Oral Communication ....................................................... 7 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences ................................................................. 8 cr
   BIOL 1220, Concepts of Biology, 4 cr
   CHEM 1127, Chemical Principles I, 4 cr

   Goal 4: Mathematics/Logical Reasoning ................................................. 10 cr
   MATH 1127, Calculus I, 5 cr
   MATH 1128, Calculus II, 5 cr

   GOAL 5: History and the Social and Behavioral Sciences ......................... 3 cr
   ANTH 1612, Cultural Anthropology, 3 cr

   GOAL 6: Humanities – the Arts, Literature and Philosophy ....................... 3 cr
   PHIL 1125, Ethics, 3 cr

II. Professional Core Requirements .............................................................. 29 Credits
   PHYS 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
   NUTR 1211, Principles of Nutrition, 3 cr
   MATH 2208, Fundamentals of Statistics, 4 cr

TOTAL .............................................................................................................. 60 Credits

Revised: 09/15/2015
Implementation: Fall 2015
Nursing

Career/Program Overview

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

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

Program/Degree Options

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

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

Program Start Date(s)

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

Career Opportunities/Information

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

Accreditations/Articulations

Upon successful completion of this program, graduates are eligible to apply to take the National Council Licensure Examination – Registered Nurse (NCLEX-RN). The ADN program is approved by the Minnesota Board of Nursing and accredited by the Accreditation Commission for Education in Nursing, Inc. The Accreditation Commission for Education in Nursing, Inc. is located at 3343 Peachtree Road NE, Suite 850, in Atlanta, Georgia 30326. For more information, visit ACEN’s website at http://www.acenursing.org/.

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/nurs/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
NURSING (A.D.)
Associate in Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements...............30 Credits

Goal 1: Written and Oral Communication ..............................................................4 cr
ENGL 1117, Reading and Writing Critically I, 4 cr

Goal 3: Natural Sciences .........................................................................................16 cr
BIOL 1217, Anatomy and Physiology, 4 cr
BIOL 1218, Anatomy and Physiology II, 4 cr
BIOL 2021, General Microbiology, 4 cr
CHEM 1117, General, Organic and Biological Chemistry, 4 cr

Goal 5: History and the Social and Behavioral Sciences.................................7 cr
PSYC 2618, General Psychology, 4 cr
SOC 1614, Introduction to Sociology, 3 cr

Goal 6: Humanities – the Arts, Literature, and Philosophy .........................3 cr
Recommended: PHIL 1135, Bioethics, 3 cr
OR PHIL 1125, Ethics, 3 cr

II. Program Requirements .......................................................................................34 Credits
NURS 1117, Fundamentals of Nursing, 6 cr
NURS 1118, Adult Nursing I, 6 cr
NURS 2217, Adult Nursing II, 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

TOTAL...................................................................................................................64 Credits

RCTC class hours are 50 minutes in length, 1 credit is a minimum of 16 hours of classroom contact. The College has an expectation that students spend two hours of preparatory work for every one hour in the classroom. Nursing clinical assignments are calculated on a ratio of 1:3. Three hours are spent in clinical work for every one credit. Science course labs are assigned two hours for one credit.
Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at [https://www.revisor.mn.gov/statutes/?id=245C.15](https://www.revisor.mn.gov/statutes/?id=245C.15). Students in the program will also be required to complete a National Criminal background Study. Information about completing the background study will be available from program faculty.

Purpose: The associate degree nurse is prepared to practice nursing in situations involving direct patient care, most frequently in the hospital or long-term care facility. Graduates are prepared to function as defined in Minnesota statutes by (a) providing a nursing assessment of the community; (b) providing nursing care supportive to or restorative of life functions such as skilled ministration of nursing care, supervising and teaching nursing personnel, health teaching and counseling, case finding and referral to other health resources; and (c) evaluating these actions. After successful completion of this program, which includes classes at RCTC and care of patients in the Mayo Foundation Hospitals in addition to area nursing homes and selected community agencies, graduates are eligible to apply to take the National Council Licensure Examination -Registered Nurse (NCLEX-RN).

The program is approved by the Minnesota Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 ([www.acenursing.org](http://www.acenursing.org)).

Prerequisites:
• High school diploma or GED
• Nursing Assistant Course (NA 1500 or equivalent)
• Cumulative GPA 2.5. (Based on grades within 5 years of the semester for which you have applied)
• Grade of C or better (in high school ** or at college level) in the following courses:

  Biology with a lab component within the last 5 years  
  Chemistry with a lab component within the last 5 years  
  Elementary Algebra (Math 0098 or equivalent)  
  **High School biology & chemistry must be full year courses**

Application to the Nursing Program: view website: [www.rctc.edu/program/nurs/](http://www.rctc.edu/program/nurs/)
• Seek academic advisement.
• Apply to and meet college admission requirements. Once accepted into the college, you must complete a nursing program application (Available Online). **ALL prerequisites must be completed prior to submission of a Nursing Program application, i.e. enrollment in a science course at the time of application does not fulfill prerequisite requirements.**
• Applicants must submit official high school and ALL college transcripts for evaluation.
• Applications must be received by 4pm September 15th for Spring semester admission and February 1st for Fall semester. Should there be more qualified applicants than are spaces available, students will be admitted according to their admission ranking, based on the points earned. Applicants must be in good standing with RCTC to be considered.

Admission: Admitted students are required:
• To pay (by the designated deadline) a $300 deposit to hold a place in the Nursing Program. (The deposit is applied toward the first semester tuition and is refundable if application is withdrawn in writing up to 30 days before the semester begins).
• To attend a mandatory Nursing Orientation prior to registration. Nursing acceptance letter will identify the sessions and times available.
• To purchase Nursing Liability insurance as an attached fee each semester.
• To submit completed health forms; physical exam, immunizations, hepatitis, annual mantoux and health insurance documentation. Additional information will be provided upon acceptance to the program.
• To obtain and remain current with CPR for Healthcare Provider/Professional Rescuer prior to the start of the semester.
• To be in good standing with RCTC Nursing clinical partners.

Nursing (A.D.) Course Sequence
The Nursing Program is a four-semester course sequence, which begins both Fall and Spring Semester. Biology, Chemistry, English, Psychology, Sociology, and Philosophy (Humanities) courses may be taken prior to admission into the Nursing Program. Grade of C or better is required of all general education and nursing course requirements. All general education requirements may be taken through the Post-Secondary Enrollment Option Program (PSEOP).

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<thead>
<tr>
<th>Semester I</th>
<th>Semester II</th>
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<tbody>
<tr>
<td>NURS 1117, 6 cr</td>
<td>NURS 1118, 6 cr</td>
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<tr>
<td>BIOL 1217, 4 cr</td>
<td>BIOL 1218, 4 cr</td>
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<td>CHEM 1117, 4 cr</td>
<td>BIOL 2021, 4 cr</td>
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<tr>
<td>ENGL 1117, 4 cr</td>
<td>PSYC 2618, 4 cr</td>
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<td>TOTAL 18 cr</td>
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<tr>
<th>Semester III</th>
<th>Semester IV</th>
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<tr>
<td>NURS 2207 (8 wks), 3 cr</td>
<td>NURS 2209 (8 wks), 3 cr</td>
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<tr>
<td>NURS 2208 (8 wks), 3 cr</td>
<td>NURS 2218 (8 wks), 3 cr</td>
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<tr>
<td>NURS 2217, 6 cr</td>
<td>NURS 2219 (8 wks), 4 cr</td>
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<tr>
<td>SOC 1614, 3 cr</td>
<td>PHIL 1125/1135, 3 cr</td>
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<tr>
<td>TOTAL 15 cr</td>
<td>TOTAL 13 cr</td>
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</table>
ADVANCED PLACEMENT AVAILABLE FOR LPNs:
An advanced placement track is available for LPNs with a current license who have graduated from a state approved school of practical nursing. LPNs meeting the admission criteria will receive 6 credits for NURS1117 and will be placed into NURS 1118. They must complete the required general education identified in Semester I. The program can be completed in 3 semesters. A separate application is required for this option.

Revised: 06/11/2015
Implementation: Fall 2015
Personal Trainer

Program Overview
RCTC offers two options for both Personal Trainer and Group Fitness Instructor Certification. The Personal Trainer 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 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 or Group Fitness Instructor
   Diploma Option
   Certificate Option
Related Field Programs
   Sport Management
   Coaching

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

Career Opportunities/Information
RCTC’s Personal Trainer program will prepare students to work with individuals to assist them in improving their fitness levels, while the Group Fitness Instructor 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.

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.

Accreditations/Articulations
Rochester Community and Technical College is accredited by the Higher Learning Commission.

Additional Information
Program Website: http://www.rctc.edu/program/pt-gfi/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
PERSONAL TRAINER
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements………………..4 Credits

Goal 3: Natural Sciences

Choose from one of the following:
BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
BIOL 1110, Human Biology, 4 cr
BIOL 1217, Anatomy & Physiology I, 4 cr

II. Professional 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 courses for a minimum of)......................5 Credits

PHED 1112, Jogging & Walking, 1 cr
PHED 1122, Circuit Training, 1 cr
PHED 1133, Strength Training for Men & 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
PERSONAL TRAINER Certificate

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements………………4 Credits
   Goal 3: Natural Sciences
   Choose from one of the following:
   BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
   BIOL 1110, Human Biology, 4 cr
   BIOL 1217, Anatomy & Physiology I, 4 cr

II. Professional Core Requirements .................................................................12 Credits
   HLTH 1110, CPR/AED For the Professional Rescuer, 1 cr
   HLTH 1108, Weight Management, 3 cr
   PHED 2241, Essentials of Personal Training, 3 cr
   PHED 2245, GF/PT Certification Exam Prep, 2 cr
   PHED 2293, Personal Trainer/Group Fitness Instructor Field Experience, 3 cr

III. Electives (Select any combination of courses for a minimum of).......................6 Credits
   PHED 1105, Lifetime Fitness, 3 cr
   PHED 1112, Jogging & Walking, 1 cr
   PHED 1122, Circuit Training, 1 cr
   PHED 1133, Strength Training for Men & 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
   PHED 2242, Essentials of Strength & Conditioning, 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

TOTAL..................................................................................................................22 Credits

Revised: 04/08/2016
Implementation: Fall 2016
Photography

Career/Program Overview

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

Curriculum-at-a-Glance


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; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, 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. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

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

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

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

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

Gainful Employment Programs

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

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

Additional Information

Program Website: [http://www.roch.edu/dept/art/](http://www.roch.edu/dept/art/)
Program Plan: [http://www.rctc.edu/catalog/programs](http://www.rctc.edu/catalog/programs)
More Information: [http://www.rctc.edu/contact](http://www.rctc.edu/contact)
ART + DESIGN:  
PHOTOGRAPHY  
Certificate

I. Professional Core Requirements ......................................................................................... 26 Credits
ART 1121, 2D Design, 3 cr
ART 1184, Photography I, 3 cr
ART 1284, Darkroom Photography, 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 1 of the following courses):
ART 1110, Art Appreciation, 3 cr
ART 1111, Art History Survey I, 3 cr
ART 1112, Art History Survey II, 3 cr

Elective (Student must choose 1 of the following courses):
BUS 2144, Introduction to E-Business, 3 cr
BUS 2201, Principles of Marketing, 3 cr
BUS 2240, Project Management, 3 cr
COMM 1114, Fundamentals of Public Speaking, 3 cr

TOTAL ........................................................................................................................................... 26 Credits

PURPOSE: The Photography Certificate is a two-year sequence of Art courses that emphasizes artistic expression and builds technical, visual, interpretive and analytical skills and knowledge in Art with an emphasis in photography. This certificate acknowledges successful completion of courses that cover both basic and creative aspects of camera, black and white and color darkroom, alternative photographic processes, lighting, digital imaging, presentation and portfolio development. To complete a certificate, a portfolio of photographic work and a supporting paper will further validate quality and interpretive skills.

Revised: 03/05/2014  
Implementation: Fall 2014
Practical Nursing

Career/Program Overview

The Practical Nursing major is designed to provide students with the knowledge and skills necessary to provide direct nursing care to patients in hospitals, nursing homes, clinics, home health care, 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 a student role to the role of graduate practical nurse.

Curriculum-at-a-Glance

Coursework for the Practical Nursing program includes 12 general education credit requirements and 27 core practical nursing credit requirements. The general education courses may be taken prior to or concurrent with the nursing courses. The program length is 10 months, starting in August with completion in June. Core requirements 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

The Practical Nursing Diploma program is 39 credits in length.

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

Program Start Date(s)

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

Career Opportunities/ Information

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

Gainful Employment Programs

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.

Accreditations/Articulations

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

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

The Accreditation Commission for Education in Nursing, Inc. is located at 3343 Peachtree Road NE, Suite 850, in Atlanta, Georgia 30326. For more information, visit ACEN’s website at http://www.acenursing.org/.

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

Additional Information

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

251
PRACTICAL NURSING
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements .......... 12 Credits
   BIOL 1107, Fundamentals of Anatomy & Physiology, 4 cr
   ENGL 1117*, Reading & Writing Critically I, 4 cr
   PSYC 2618, General Psychology, 4 cr

II. Practical Nursing Course Requirements ........................................................................ 27 Credits
   PNM 1200, Pharmacology for Practical Nursing, 3 cr
   PNM 1210, Success in Nursing, 1 cr
   PNM 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

RCTC class hours are 50 minutes in length; 1 credit is a minimum of 16 hours of classroom contact. The College has an expectation that students spend two hours of preparatory work for every one hour in the classroom. Nursing clinical assignments are calculated on a ratio of 1:3; 48 hours are spent in clinical work for every one credit.

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a National Criminal background Study. Information about completing the background study will be available from program faculty.

Purpose: The Practical Nursing major is designed to provide students with the knowledge and skills necessary to provide direct nursing care to patients in hospitals, nursing homes, clinics and home and community based settings. This educational program includes classroom theory, laboratory experience and supervised clinical experience in area hospitals, nursing homes, clinics and community health care agencies. During the last semester of the program, the clinical rotation includes integrated clinical experience where students participate in eight-hour shifts to assist them in making the transition from student role to the role of the graduate practical nurse. A graduate of this program is eligible to apply to take the National Council for Licensing Exam - Practical Nursing (NCLEX-PN). The program is approved by the Minnesota Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing, Inc., 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326 (www.acenursing.org).
**PRACTICAL NURSING COURSE SEQUENCE:** General education courses are offered as needed. Grade of “C” or better is required of all general education and Practical Nursing (PNM) courses. English, Biology, and Psychology courses may be completed prior to admission to Practical Nursing.

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<thead>
<tr>
<th>FALL</th>
<th>SPRING</th>
<th>SUMMER</th>
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<tr>
<td><strong>Semester I</strong></td>
<td><strong>Semester II</strong></td>
<td><strong>Semester III</strong></td>
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<tr>
<td>PNM 1210 1 cr</td>
<td>PNM 1320 6 cr</td>
<td>PNM 1440 4 cr</td>
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<td>PNM 1250 7 cr</td>
<td>PNM 1340 6 cr</td>
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<tr>
<td>PNM 1200 3 cr</td>
<td>PSYC 2618 4 cr</td>
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<tr>
<td>ENGL 1117 4 cr</td>
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<tr>
<td>BIOL 1107* 4 cr</td>
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<td><strong>TOTAL 19 cr</strong></td>
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* ENGL 1117 and BIOL 1107 must be completed prior to Semester II courses.
* PSYC 2618 must be completed prior to Semester III.

**Pre-requisites:**
1. High school diploma or GED.
2. Minimum GPA of 2.0
3. Elementary Algebra (MATH 0098) with a “C” or better or equivalent. (**)
   ** Please call the Welcome Center at (507) 285-7557 for further information on academic assessments.
4. Successful completion of a Nursing Assistant course (NA 1500) or equivalent.
5. Health 1110 or equivalent CPR course for the health care professional (1 and 2 person and infant and child).

**Application to the Practical Nursing Program:**
- Meet college admission requirements.
- Complete RCTC Practical Nursing application form at [http://www.rctc.edu/program/pnm/html/admission requirements.html](http://www.rctc.edu/program/pnm/html/admission requirements.html)
- Submit official transcripts from high school and college (if any) for evaluation.
- Seek academic advisement to ensure that all pre-requisites are completed.
- **Applications received by June 15th with completed prerequisites on file will be given first consideration.**

**Admission:** Admitted students are required to:
- Purchase Nursing Liability insurance as an attached fee with each course with a clinical lab component
- Submit at orientation completed health forms including:
  a. physical exam
  b. immunizations, including influenza vaccine
  c. hepatitis
  d. annual Mantoux test
  e. documentation of health insurance
- Complete the State of Minnesota Background Study Form and the National Background study by date given at orientation.

Revised: 03/05/2014; Implementation: Fall 2014
Precision Manufacturing Technology

Career/Program Overview

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 (50-4012) in the United States is $24.13 per hour. In Minnesota the median hourly wage for machinists is $24.67. In Southeastern Minnesota, machinists can anticipate a median hourly wage of $21.10.

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.

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/index.html

Additional Information

Program Website: http://www.rctc.edu/program/pmt
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
Facebook: https://www.facebook.com/RCTCPMT/
PRECISION MANUFACTURING TECHNOLOGY
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ..................... 3 Credits
Minnesota Transfer Curriculum ....................................................................................... 3 cr
   ENGL 1109, (or higher) Introduction to Technical Communication, 3 cr

II. Professional Program 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

PREREQUISITES: Students must have completed or be enrolled in MATH 1015 or tested into MATH 0098.

PURPOSE: The Precision Manufacturing Technology major trains an individual for hands on precision model creation. Students will be able to generate 3D models using SolidWorks and program the parts for manufacturing using CAM.

Revised: 03/10/2015
Implementation: Fall 2015
Science Foundations A & B

Career/Program Overview

The Science Foundations Certificate A provides 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 programs.

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 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.

The Science Foundations Certificate B provides 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 programs.

Classes chosen for this 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. 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.

Curriculum-at-a-Glance


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.

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

Accreditation/Articulations

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

Additional Information

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

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
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.

Additional Information: 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 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
SCIENCE FOUNDATIONS B
Certificate

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements………………18 Credits

Goal 3: Natural Science
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

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 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.

Additional Information: 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 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. 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
Software Applications Specialist

Career/Program Overview

The Software Applications Specialist Certificate provides a benchmark for students to measure their computer skills. Graduates will have a mastery of computer software skills.

Software Applications Specialist careers may involve data processing, verifying data, preparing materials, such as composing letters, electronic correspondence in reply to requests for merchandise, damage claims, credit and other information, delinquent accounts, incorrect billings, or unsatisfactory services.

Curriculum-at-a-Glance

Software Applications Specialist coursework: Written and oral communications, current software applications, Windows, Outlook, keyboarding, customer service skills, theory and applied.

Careers related to software specialist are:
- Administrative Assistant
- Administrative Assistant: Legal Emphasis
- Administrative Clinic Assistant
- Customer Service Specialist/Assistant

Program/Degree Options

- Software Applications Specialist Certificate
- Administrative Assistant. Certificate
- Administrative Assistant. Diploma
- Administrative Assistant. Associate in Applied Science
- Administrative Assistant. Associate in Science
- Administrative Assistant Refresher. Certificate
- Administrative Assistant: Legal Emphasis. Certificate
- Customer Service Administrative Specialist. Diploma
- Customer Service Office Assistant. Certificate
- 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. All courses in the Administrative Assistant AS, AAS, Administrative Assistant, Customer Service Diploma, Administrative Assistant including Legal and Customer Service Certificate and Software Applications Specialist options are available online. Many courses within each of these programs are also offered on campus or in a hybrid format (on campus and online) too.

Career Opportunities/Information

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

Average salary of a Software Specialist is $15.86. The salary range of a Software Specialist is 8.17 to 21.15

Salaries for Administrative Assistants will vary in Minnesota depending upon specialty skills. Average salary is $18.30 in MN and salaries range from $16.36 to $23.06.

Average salary for a Customer Service Specialist is $15.26. The salary range for a Customer Service Specialist is $12.39 to $23.36.

Average salary of an Administrative Clinic Assistant is $15.63 to $21.95.

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.

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.rcte.edu/program/btec/
Program Plan: http://www.rcte.edu/catalog/programs/
More Information: http://www.rcte.edu/contact/
SOFTWARE APPLICATIONS SPECIALIST
Certificate

I. Program-Related Requirements ........................................................................................................................................... 13 Credits
BTEC 1550, Introduction to Windows, 2 cr

BTEC 2350, Microcomputer Business Applications, 3 cr AND
BTEC 2450, PowerPoint, 1 cr

OR

BTEC 2355, Microsoft Business Applications, 4 cr

BTEC 2365, Advanced Microcomputer Business Applications, 3 cr
BTEC 2600, Outlook, 1 cr
BTEC 2622, Current Workplace Technology, 3 cr

TOTAL … .................................................................................................................................................................................. 13 Credits

NOTE: KEYBOARDING PREREQUISITE: Students entering this program must be proficient in keyboarding skills at a minimum of 35 net wpm. Students not meeting this requirement should enroll in BTEC 1050 Keyboarding. This class will not count toward the required credits for the program.

The Software Applications Specialist Program gives the student an understanding of the software used in general business activities.

Revised: 05/10/2016
Implementation: Fall 2016
Sport Management

Career/Program Overview

RCTC offers both an Associate in Applied Science degree and a Diploma option for students interested in a career in Sport Management.

Curriculum-at-a-Glance

General course work will include: Introduction to Sport Facility Management, Legal Environment of Business, Principles of Management, Introduction to Business, and Responding to Emergencies. While focused areas of study, depending on option choice, will include courses such as; Introduction to Turf, Foundations of Golf Course Management, Development & Management of Sport/Recreation Facilities, and Recreational Program Leadership. Both programs regardless of degree choice include an internship as well.

Elective credits are required and a range of options are offered. Options include but are not limited to; Lifetime Fitness, Essentials of Personal Training, Turf and Grounds Management and Introduction to Athletic Training.

Program/Degree Options

RCTC offers two options within the field of Sport Management.

- Associate in Applied Science Degree
- Diploma

Either program offers a choice between two areas of study.

- Option “A” Sport/Athletic Facilities Management
- Option “B” Golf Course Management

Note: Both options may be completed.

RCTC offers these related field programs.

- Coaching
- Personal Trainer
- Group Fitness Instructor
  * All have Certificate and Diploma options

Program Start Date(s)

Students can start coursework any semester. Some courses are not offered every semester so students are encouraged to meet with the program advisor to plan ahead, be aware of class prerequisites and length of coursework required.

Career Opportunities/Information

RCTC’s Sport Management program options prepare students for a wide range of career opportunities. These may include careers in community education, recreation centers, athletic/fitness clubs, adventure courses, ice arenas, park and recreation departments, high school or collegiate athletic programs, amateur or professional sports teams, leagues or administrations.

According to the U.S. Department of Labor Bureau of Labor Statistics Occupational Outlook Handbook, overall employment in leisure and hospitality jobs is expected to grow by 17.8 percent. New jobs in the recreational sector reflect increasing incomes, leisure time and awareness of the health benefits of physical fitness. Overall employment of recreation and fitness workers is expected to grow faster than the average for all occupations through 2012.

Gainful Employment Programs

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

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

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

Additional Information

Program Website: [http://www.rctc.edu/program/sports/](http://www.rctc.edu/program/sports/)
Program Plan: [http://www.rctc.edu/catalog/programs/](http://www.rctc.edu/catalog/programs/)
More Information: [http://www.rctc.edu/contact/](http://www.rctc.edu/contact/)
SPORT MANAGEMENT
Associate in Applied Science

I. Minnesota Transfer Curriculum General Education Requirements………………..…19 Credits
   Goal 1: Written and Oral Communication ………………………minimum of 7 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Public Speaking, 3 cr OR COMM 1130 Interpersonal Communication, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS
   Goal 3: Natural Sciences …………………………………………………….minimum of 3 cr
   Goal 4: Mathematics/Logical Reasoning ………………………minimum of 3 cr
   Goal 5: History and Social and Behavioral Sciences …………minimum of 3 cr
      Recommended: ECON 2214, Principles of Economics: Micro, 3 cr
   Goal 6: The Humanities – The Arts, Literature & Philosophy …minimum of 3 cr

II. Professional Core Requirements…………………………………………………………….23 Credits
    BUS 1101, Introduction to Business, 3 cr
    BUS 2210, Legal Environment of Business, 3 cr
    BUS 2232, Principles of Management, 3 cr
    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 Mgmt, 3 cr
    REC 2210, Recreation Program Leader, 3 cr

III. Area of Study: Choose either “A” or “B”:
    A. Sport/Athletic Facilities Management………………………………………………….9 Credits
       HORT 1318, Introduction to Turf, 3 cr
       PHED 2281, Development/Mgmt of Sport/Rec Facilities, 3 cr
       PHED 2296, Sport Administration Internship II, 3 cr

    B. Golf Course Management……………………………………………………………10 Credits
       GFMT 1110, Foundations of Golf Course Mgmt, 3 cr
       HORT 1318, Introduction to Turf, 3 cr
       PHED 1131, Golf, 1 cr OR PHED 1236/2236, Golf Team, 1 cr
       PHED 2296, Sport Administration Internship II, 3 cr

IV. Electives…………………………………………………………………………………………8-9 Credits
Choose minimum of 6 credits:
   HTLS 1322 Turf & Grounds Management, 4 cr
   PHED 1105 Lifetime Fitness, 3 cr
   PHED 2240 Methods of Group Fitness, 3 cr
PHED 2241 Essentials of Personal Training, 3 cr
PHED 2242 Essentials of Strength and Conditioning, 3 cr
PHED 2245 GF/PT Certification Exam Prep, 2 cr
PHED 2249 Prevention and Care of Athletic Injuries, 3 cr

**Choose minimum of 2 credits:**
Any PHED 1100 1 credit activity level classes, 1 cr/ea

**TOTAL** .................................................................................................................. **60 Credits**

Revised: 03/17/2016
Implementation: Fall 2016
SPORT MANAGEMENT
Diploma

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ...........6 Credits

Goal 1: Written and Oral Communication ..................................................minimum of 3 cr
ENGL 1117, Reading and Writing Critically I, 4 cr OR
COMM 1114, Fundamentals of Public Speaking, 3 cr OR
COMM 1130, Interpersonal Communication, 3 cr

Goal 2-10 .........................................................................................................minimum of 3 cr
Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS
Goal 3: Natural Sciences .................................................................minimum of 3 cr
Goal 4: Mathematics/Logical Reasoning .........................minimum of 3 cr
Goal 5: History and Social and Behavioral Sciences ..............minimum of 3 cr
Recommended: ECON 2214, Principles of Economics: Micro, 3 cr

Goal 6: The Humanities – The Arts, Literature & Philosophy ....minimum of 3 cr

II. Professional Core Requirements ..........................................................18 Credits
BTEC 2350, Microcomputer Business Applications, 3 cr
BUS 1101, Introduction to Business, 3 cr
BUS 2210, Legal Environment of Business, 3 cr
HLTH 1114, Responding to Emergencies, 3 cr
PHED 2280, Introduction to Sport Facility Management, 3 cr
REC 2210, Recreation Program Leader, 3 cr

III. Area of Study: Choose either “A” or “B”:
A. Sport/Athletic Facilities Management ...................................................9 Credits
HORT 1318, Introduction to Turf, 3 cr
PHED 2281, Development and Management of Sport/Recreation Facilities, 3 cr
PHED 2296, Sport Administration Internship II, 3 cr

B. Golf Course Management .................................................................9 Credits
HORT 1318, Introduction to Turf, 3 cr
GFMT 1110, Foundations of Golf Course Management, 3 cr
PHED 2296, Sport Administration Internship II, 3 cr

IV. Electives ...............................................................................................3 Credits
HTLS 1322, Turf & Grounds Management, 4 cr
PHED 1105, Lifetime Fitness, 3 cr
PHED 1189, Boot Camp, 1 cr
PHED 2240, Methods of Group Fitness, 3 cr
PHED 2241, Essentials of Personal Training, 3 cr
PHED 2242, Essentials of Strength and Conditioning, 3 cr
PHED 2245, GF/PT Certification Exam Prep, 2 cr
PHED 2249, Prevention and Care of Athletic Injuries I, 3 cr

TOTAL....................................................................................................................................................... 36 Credits

Revised: 04/08/2016
Implementation: Fall 2016
Supervisory Leadership

Career/Program Overview

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 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

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/online/smgt/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
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 & 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
      Recommended: MATH 1111, Contemporary Concepts in Mathematics, 3 cr

   Goal 5: History and the Social and Behavioral Sciences ......................................... 3 cr
      ECON 1101, Introduction to Economics, 3 cr
      ECON 2214, Principles of Microeconomics, 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. Business Core Requirements.................................................................................. 32 Credits
   ACCT 1415, Budgeting for Decision Making, 3 cr
   BUS 1307, 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. A.A.S. Technical Credit 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
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: Fall 2016
SUPERVISORY LEADERSHIP
Certificate

I. Professionally Related Business 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 Skills, 3 cr
   SMGT 1420, Documentation and Written Communication for Supervisors, 1 cr

TOTAL .................................................................................................................................... 16 Credits

Supervisory Leadership Certificate
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
EMPLOYEE DEVELOPMENT
Certificate

I. Professionally Related Business Requirements .......................................................... 17 Credits

BUS 1307, Legal Issues for Supervisors, 3 cr
SMGT 1137, Leading Innovation and Change, 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 for Supervisors, 1 cr

TOTAL ................................................................................................................................. 17 Credits

Employee Development Certificate
The Employee Development 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 employee development issues.

Students will have the opportunity to increase their skills in recruitment, retention, employee development, performance management, coaching, managing diversity, managing change and many more employee development 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
Surgical Technology

Career/Program Overview

The Surgical Technology degree is designed to provide students with the knowledge and skills necessary for careers working in an operating room. The surgical technologist prepares the surgical environment and functions as a team member during surgical procedures. After many hours of simulated experiences in a well-equipped lab, students will obtain clinical experience at Mayo Clinic Hospitals in Rochester, Minnesota and other hospitals in Southeastern Minnesota.

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.

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 for surgical technologists is expected to grow by 30% through 2022.

Accreditations/Articulations

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

RCTC’s Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP)
25400 U.S. Highway 19 North, Suite 158
Clearwater, FL 33763
(Phone 727-210-2350)

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)

As part of the requirements to graduate from the Surgical Technology program, students must take the National Board of Surgical Technology and Surgical Assisting (NBSTSA) Certifying Examination for Surgical Technologists.

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

Additional Information

Program Website: http://www.rctc.edu/program/st/
Program Plan/Course Requirements: http://www.rctc.edu/catalog/programs/
More Information:
http://www.rctc.edu/contact/
www.caahep.org
www.ast.org
www.nbstsa.org
SURGICAL TECHNOLOGY
Associate in Applied Science

Accreditation: The program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, Florida 33756 (Phone: 727-210-2350) in cooperation with the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), 6 West Dry Creek Circle, Suite 210, Littleton, Colorado 80120 (Phone: 303-694-9262).

I. Minnesota Transfer Curriculum Courses ..................................................18 Credits
  Goal 1: Written and Oral Communication..............................................4 cr
  ENGL 1117, Reading & Writing Critically, 4 cr

  Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

  Goal 3: Natural Sciences .................................................................11 cr
  BIOL 1217, Anatomy and Physiology I, 4 cr
  BIOL 1218, Anatomy and Physiology II, 4 cr
  CHEM 1101, Elements of Chemistry, 3 cr

  Goal 5: History and the Social and Behavioral Sciences .......................3 cr
  PSYC 1611, Psychology of Adjustment, 3 cr

II. Professional Program-Related 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 & Microbiology, 3 cr
  ST 2120, Operating Room Techniques I, 5 cr
  ST 2121, Operating Room Techniques II, 5 cr
  ST 2122, Introduction to the Operating Room, 3 cr
  ST 2123, Surgical Procedures I, 9 cr
  ST 2124, Surgical Procedures II, 9 cr

TOTAL ........................................................................................................60 Credits

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background study will not be allowed to participate in clinical activities. A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Students in the program will also be required to complete a national criminal background study. Information about completing both background studies will be available from program faculty.

Revised: 11/19/2014; Implementation: Spring 2015
Veterinary Technician

Career/Program Overview

The trend toward group practices, increased client expectations of quality care, and an economic need to leverage Veterinarians’ productivity, have allowed veterinary technicians to play a greater role in providing nursing care and related medical services. Veterinary Technicians can assist the veterinarian as a nurse, lab technician, radiography technician, anesthetist, surgical nurse and client educator.

Curriculum-at-a-Glance

The Veterinary Technician program is an Associate in Applied Science degree. The degree consists of 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.

*National Association of Veterinary Technicians in America (www.navta.net)

Accreditations/Articulations

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

The RCTC Veterinary Technology program is fully accredited by the American Veterinary Medical Association.

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

Additional Information

Program Website: http://www.rctc.edu/program/vt/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
VETERINARY TECHNOLOGY
Veterinary Technician
Associate in Applied Science

I. Minnesota Transfer Curriculum (MnTC) General Education Requirements ...............16 Credits

Goal 1: Written and Oral Communication .........................................................3 cr
ENGL 1117, Reading and Writing Critically I, 4 cr OR
COMM 1114, Fundamentals of Speech, 3 cr
Three credits from courses that meet competencies of MnTC Goal 1

Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

Goal 3: Natural Sciences .................................................................................7 cr
BIOL 1220, Concepts of Biology, 4 cr
CHEM 1101, Elements of Chemistry, 3 cr

Goal 5: History and the Social and Behavioral Sciences .........................3 cr
PSYC 1611, Psychology of Adjustment, 3 cr OR
Credits from MnTC Goal 5

Goal 6: The Humanities - the Arts, Literature, and Philosophy ...............3 cr
PHIL 1125, Ethics, 3 cr OR
Credits from MnTC Goal 6

Required general education courses must be completed with a grade of C or better.

II. Core Requirements .......................................................................................59 Credits

MATH 1026, Mathematics for Vet Technicians, 1 cr
VT 1220, Small Animal Nursing Techniques, 3 cr
VT 1510, Veterinary Office Procedures, 2 cr
VT 1410, Vet Surgical Nursing/Anesthesia, 2 cr
VT 1610, Fund of Diagnostic Imaging, 3 cr
VT 1810, Clinical Laboratory Principles, 2 cr
VT 1710, Intro to Vet Tech Field Experience, 2 cr
VT 2230, Sm Animal Nursing Techniques II, 3 cr
VT 2910, Pharm and Disease for Vet Techs, 4 cr
VT 2020, Comparative Vet Anatomy & Phys, 2 cr
VT 2620, Applied Diagnostic Imaging, 1 cr
*VT 1010, Veterinary Medical Terms & Anatomy, 3 cr *VT 1110, Introduction to Animal Health Tech, 3 cr
VT 2260, Veterinary Surgical Nursing II, 2 cr
VT 2920, Sm Animal Disease & Diagnostics, 2 cr
VT 2820, Clinical Laboratory Techniques I, 3 cr
VT 2240, Sm Animal Nursing Techniques III, 2 cr
VT 2830, Clinical Laboratory Techniques II, 3 cr
VT 2250, Large Animal Procedures, 3 cr
VT 2270, Laboratory Animal Care & Mgmt, 3 cr
VT 2930, Appl Pharmacology & Nutrition, 2 cr
VT 2720, Veterinary Technician Field Exp, 4 cr
VT 1900, Small Animal Care and Mgmt, 2 cr
VT 2900, Kennel Management & Nutrition, 2 cr

TOTAL ..................................................................................................................75 Credits
*PREREQUISITES:* Successful completion of VT 1010, Veterinary Medical Terms and Anatomy; VT 1110, Introduction to Animal Health Technology; Written and Oral Communications (Goal 1); and CHEM 1101, Elements of Chemistry. All VT and required general education courses must be completed with a grade of C or better in order to continue to the next semester of the program.

**PURPOSE:** The Veterinary Technology department offers one major option: Veterinary Technician A.A.S Degree. The VT Program is designed for students to complete some prerequisites in Veterinary Technology and after successful completion provide an opportunity to advance into the Veterinary Technician Applied Associate Degree. Courses are arranged in a sequential manner with a field experience component scheduled in the summer semester for the first year and the spring of the second year. All students begin in the VT program in spring semester of the academic year. Courses continue in an arranged sequential manner and are designed to combine theory with practical experience.

The Veterinary Technician curriculum is designed to prepare students for a career as a Veterinary Technician. Students are taught the skills and procedures to effectively contribute to the health and well-being of the animal patient. Veterinary Technicians are qualified to provide a diverse range of medical skills and responsibilities that include: advance nursing care, anesthesia monitoring and induction, clinical laboratory testing and analysis, critical care support, surgery assisting, dental prophylaxis, radiographic imaging and client education.

**OCCUPATIONAL OBJECTIVES:** Training as a veterinary technician enables the student to work as professional technical support to veterinarians, biomedical researchers, and other scientists as well as positions in the pharmaceutical industries, animal control and humane organizations and local and state health departments. Opportunities for jobs exist in the following areas: Veterinary practice, Veterinary supply sales, Zoo/Wildlife Medicine, Diagnostic Laboratories, Biomedical research, Humane Societies, Military Service, Teaching, Herd Health Managers.

**APPLICATION TO THE VETERINARY TECHNICIAN PROGRAM:**
1. Meet college admission requirements.
2. Complete RCTC Veterinary Technician application form.
3. Submit official transcripts from high school and college (if any) for evaluation.
4. Seek academic advisement to ensure that all pre-requisites are complete.
5. Application is valid for the current year only.
6. Application deadline is Nov 15. Only offering a Spring start.
7. Thirty-six students will be admitted annually.
8. Should there be more qualified applicants than are spaces available, students will be admitted according to GPA ranking and a score on a program 50 point test given in the middle of fall semester.
9. Must have completed program prerequisites prior to entrance into the program.
10. Admittance will be conditional until fall grades have been finalized.

**SEQUENCE OF COURSES:** General education courses may be completed prior to enrollment in the Veterinary Technician course sequence The Veterinary Technician courses must be taken in the sequential order.
First semester Veterinary Technician courses will be prerequisites for entrance into the program
VT 1010, Veterinary Medical Terms and Anatomy
VT 1110, Introduction to Animal Health Technology

The following credits will be transferred into the VT program from fall semester:
MATH 1026 Applied Health Sciences Mathematics, 1 cr
CHEM 1101, Elements of Chemistry, 3 cr
Written and Oral Communications Elective 3 cr

Minnesota Transfer Curriculum General Education Requirements may be taken any semester
Humanities and the Arts Elective, 3 cr
Hist/Soc/Behavioral Science Elect (Goal 5), 3 cr

Spring Semester (1st year)
VT 1220, Small Animal Nursing Techniques I, 3 cr
BIOL 1220, Concepts of Biology, 4 cr
VT 1510, Veterinary Office Procedures I, 2 cr
VT 2910, Pharm and Disease for Vet Techs, 4 cr
VT 1900, Small Animal Care and Management, 2 cr
VT 2020, Comparative Vet. Anatomy and Phys, 2 cr

Fall Semester (2nd Year)
VT 2230, S Sm Animal Nursing Techniques II, 3 cr
VT 2820, Clinical Laboratory Techniques I, 3 cr
VT 1610, Fundamentals of Diagnostic Imaging, 3 cr
VT 2920, Sm Animal Disease & Diagnostics, 2 cr
VT 2260, Veterinary Surgical Nursing II, 2 cr
OR
VT 2250, Large Animal Procedures, 3 cr

Summer Semester
VT 1710, Intro to Veterinary Tech Field Exp, 2 cr
VT 1410, Vet Surgical Nursing/Anesthesia, 2 cr
VT 1810, Parasitology, 2 cr
VT 2900, Kennel Management & Nutrition, 2 cr

Spring Semester (2nd Year)
VT 2270, Lab Animal Care & Management, 3 cr
VT 2830, Clinical Laboratory Techniques II, 3 cr
VT 2930, Appl Pharmacology & Nutrition, 2 cr
VT 2620, Applied Diagnostic Imaging, 1 cr
VT 2240, Sm Animal Nursing Techniques III, 2 cr
VT 2720, Veterinary Tech Field Experience, 4 cr
VT 2260, Veterinary Surgical Nursing II, 2 cr
OR
VT 2250, Large Animal Procedures, 3 cr

Revised: 10/27/2015
Implementation: Fall 2015
Web Design

Career/Program Overview

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

Curriculum-at-a-Glance


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; Digital Arts, Certificate Program; Mobile Application Development, Certificate Program; Motion Graphics, 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. Web Designers often work at a design agency, in an in-house design department, or as freelancers.

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

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

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

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

Gainful Employment Programs

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.

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: http://www.rctc.edu/catalog/articulations/

Additional Information

Program Website: http://www.roch.edu/dept/art/
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact
ART + DESIGN:
WEB DESIGN
Associate in Science Degree

I. Minnesota Transfer Curriculum General Education Requirements.............30 Credits
   Goal 1: Written and Oral Communication .............................................7 cr
   ENGL 1117, Reading & Writing Critically I, 4 cr
   COMM 1114, Fundamentals of Speech, OR COMM 1130, Interpersonal Communication, 3 cr

   Goal 2: Critical Thinking MAY BE MET BY ANY COURSE IN MNTC 1-10 GOALS

   Goal 3: Natural Sciences .................................................................3 cr
   Credits from MnTC Goal 3

   Goal 4: Mathematics/Logical Reasoning ..........................................3 cr
   MATH 1111, Contemporary Concepts in Mathematics, 3 cr
   or higher level mathematics course that meets MnTC Goal 4

   Goal 5: History and the Social and Behavioral Sciences .....................3 cr
   Credits from MnTC Goal 5

   Goal 6: Humanities—the Arts, Literature and Philosophy ...................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 MnTC Competencies in Goal areas 1-10.

II. Professionally-Related Requirements..............................................30 Credits
   Required: 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 ~ Pick 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
- COMP 1741, JavaScript, 3 cr
- COMP 1751, Mobile Application Development, 3 cr

**TOTAL .......................................................................................................................................................... 60 Credits**

**PURPOSE:** The purpose of the Interaction Design A.S. Degree Program is to provide the first two years of experience for transfer to any higher education institution for careers in Interaction or Web Design. There are many opportunities in Interaction or Web Design careers such as designing the look-and-feel of web sites, developing web sites, creating web content for mobile devices, conducting usability and accessibility studies of web sites, and creating content for delivery over the web.

An Articulation Agreement has been established between Rochester Community and Technical College and Minnesota State University, Moorhead. As a result, students will be able to transfer the Interaction Design Program as a package. Students will enter the transfer program at earning full credit for RCTC’s two-year degree program.

Revised: 07/31/2014
Implementation: Spring 2015
Welding Technology

Career/Program Overview

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, 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.

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.

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/welding/
Program Plan: http://www.rctc.edu/catalog/programs/
More Information: http://www.rctc.edu/contact/
WELDING TECHNOLOGY
Certificate

I. Professional Program-Related 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

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
Workplace Communication

Career/Program Overview

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 an applicant 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. Some courses are not 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.

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.

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/comm
Program Plan: http://www.rctc.edu/catalog/programs
More Information: http://www.rctc.edu/contact
WORKPLACE COMMUNICATION
Certificate

I. 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

Purpose: The Workplace Communication Certificate is targeted for those who wish to strengthen their “soft
skills” via 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. 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
Youth Work

Career/Program Overview

RCTC's Youth Work major is the only program of its kind in Minnesota. It is designed to provide students with a comprehensive, basic curriculum needed to work in careers with individuals ages 12 - 21 in a variety of settings. Students gain necessary skills and competencies by discussing, reflecting, observing, and completing projects and field experiences.

The Youth Work Certificate and AAS 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, AAS degree, or AA 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 AAS 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 AAS degree within two years.

Career Opportunities/Information

Upon graduation students will be eligible for employment that provides direct services, youth, and their families. Youth work is an emerging profession. Youth Workers are employed in a variety of settings. Graduates may find themselves working in school settings such as: after-school programs, recreation and sports, outdoor and environmental education, juvenile justice, residential and special education, mentoring, prevention, social work, or faith-based programs. Graduates of the program may seek further education to earn a degree in youth studies, youth ministry, social work, child and family studies, psychology, juvenile justice, or public affairs.

Gainful Employment Programs

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

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

Additional Information

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

I. Program-Related Courses........................................................................................................14 Credits
   CD 1001, Seeing Children and Youth, 3 cr
   CD 2002, Introduction to Youth Work, 3 cr
   CD 2241, Experiential Learning, 4 cr
   CD 2201, Child and Youth Issues, 4 cr

II. Child Development Electives................................................................................................3 Credits

TOTAL ......................................................................................................................................17 Credits

For information, contact the Welcome Center at 507-285-7557 or e-mail getinfo@rctc.roch.edu

Notice of Minnesota Background Check Requirement
Minnesota Statute 245C requires that students who have contact with individuals in licensed institutions complete an annual background study with the Minnesota Department of Human Services. Individuals who do not pass the background check will not be allowed to participate in clinical activities.

A list of disqualifying offenses is available at https://www.revisor.mn.gov/statutes/?id=245C.15. Information about completing the background study will be available from program faculty.

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

Implementation: Spring 2012
Course Descriptions
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Name</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1101</td>
<td>3</td>
<td>Introduction to Accounting</td>
<td>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).</td>
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<tr>
<td>ACCT 1410</td>
<td>2</td>
<td>Supervisory Budgeting and Cost Control</td>
<td>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).</td>
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<td></td>
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<tr>
<td>ACCT 1415</td>
<td>3</td>
<td>Budgeting for Decision Making</td>
<td>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).</td>
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<tr>
<td>ACCT 1807</td>
<td>3</td>
<td>Accounting Math/Calculators</td>
<td>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).</td>
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<tr>
<td>ACCT 1814</td>
<td>3</td>
<td>Payroll Accounting</td>
<td>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).</td>
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<tr>
<td>ACCT 2217</td>
<td>4</td>
<td>Financial Accounting</td>
<td>This course is the study of assets, liabilities and owner’s equity in the preparation and use of financial statements. The accounting cycle is covered for a service and merchandising business. Additional topics include accruals and deferrals, revenues, expenses, internal control, inventory, payroll, and fixed assets. Interpreting financial statements for corporations will be emphasized. (Prerequisites: None). (4 C/4 lect).</td>
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<tr>
<td>ACCT 2218</td>
<td>4</td>
<td>Managerial Accounting</td>
<td>This course consists of analyzing and preparing reports for internal use in the company's manage decision-making process. This course contains a study of cash flow and managerial accounting principles including cost behavior, job order costing, process costing, cost-volume-profit relationships, standard costs, budgets, break-even, and differential analysis. Managerial accounting emphasizes accounting concepts required in the strategic decision making process. Managerial Accounting is a continuation of Financial Accounting in the study of accounting. (Prerequisites: ACCT 2217 or consent of instructor). (4 C/4 lect).</td>
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<tr>
<td>ACCT 2234</td>
<td>3</td>
<td>Computerized Accounting</td>
<td>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).</td>
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<td>Course Code</td>
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<tr>
<td>ACCT 2237</td>
<td>3</td>
<td>Accounting Spreadsheet Applications</td>
<td></td>
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<tr>
<td>ACCT 2291</td>
<td>3</td>
<td>Employment Records/Reports/Database Software</td>
<td></td>
<td></td>
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<tr>
<td>ACCT 2801</td>
<td>3</td>
<td>International Study Abroad</td>
<td></td>
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<tr>
<td>ACCT 2817</td>
<td>4</td>
<td>Fundamentals of Intermediate Accounting</td>
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<tr>
<td>ACCT 2836</td>
<td>3</td>
<td>Accounting and Database Applications</td>
<td></td>
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<tr>
<td>ACCT 2849</td>
<td>4</td>
<td>Income Tax</td>
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<tr>
<td>ACCT 2850</td>
<td>4</td>
<td>Accounting Internship</td>
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<tr>
<td>ACCT 2861</td>
<td>3</td>
<td>Applied Cost Accounting</td>
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</tbody>
</table>

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 3 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 3 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).

**AMT**

**AMT 1710 2 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 2 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 3 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 2 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 4 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 2 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 2 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 3 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 7 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 2 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 3 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).
<table>
<thead>
<tr>
<th>Code</th>
<th>Credits</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMT 1900</td>
<td>2</td>
<td>Welding</td>
</tr>
<tr>
<td>AMT 2650</td>
<td>2</td>
<td>Auto Science</td>
</tr>
<tr>
<td>AMT 2740</td>
<td>3</td>
<td>Drive Train Theory</td>
</tr>
<tr>
<td>AMT 2742</td>
<td>4</td>
<td>Manual Drive Train Lab</td>
</tr>
<tr>
<td>AMT 2744</td>
<td>4</td>
<td>Automatic Trans/Transaxle Lab</td>
</tr>
<tr>
<td>AMT 2750</td>
<td>4</td>
<td>Engine Performance Theory</td>
</tr>
<tr>
<td>AMT 2752</td>
<td>7</td>
<td>Engine Performance Lab</td>
</tr>
<tr>
<td>AMT 2770</td>
<td>3</td>
<td>Heating and Air Conditioning</td>
</tr>
<tr>
<td>ANTH 1611</td>
<td>3</td>
<td>Physical Anthropology &amp; Archeology</td>
</tr>
<tr>
<td>ANTH 1612</td>
<td>3</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 1613</td>
<td>3</td>
<td>Folklore of the Americas and Beyond</td>
</tr>
</tbody>
</table>

**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).

**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).

**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).

**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).

**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).

**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).

**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).

**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).

**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.

**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.

**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.
### ARAB

#### ARAB 1101 4  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 4  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 4  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 4  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 3  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 3  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 3  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 3  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 Study Tour
This course will expose students to a diverse range of historical and cultural works of art and artifacts. Course will include either domestic or international tour destinations. Prior to departure, students will participate in structured online discussions and meet with the class and instructors in order to prepare for the trip. During the Art Study Tour, students will visit art museums, architectural structures, cultural agents, and archaeological sites, depending on the tour. After the Art Study Tour, students will reflect upon and respond to their Art Study Tour experiences. (Prerequisites: None). (3 C/3 lect, 0 lab).

### 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.

### 2D Design
This course is a foundation class in two-dimensional design and color. It is a basic exploration of visual elements and principles of design using a wide variety of media and techniques. This course emphasizes the elements, principles and ideas that constitute the shared language of all the visual arts. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

### 3D Design
This course is a foundation course in three-dimensional design. Students will explore the elements and principles of design using a variety of sculptural media and construction methods. Students will develop an informed personal reaction and critical response to sculptural works of art. This course emphasizes the elements, principles, and ideas that constitute the shared language of all the visual arts. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

### Graphic Design I
This course is an introduction to graphic design. Students will implement the principles of design to combine typography, illustration, symbols and photographs to solve visual problems. This course will explore historical design styles and place the graphic design into an art historical context. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

### 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 placed 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.

### 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).

### 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 critiques. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

### 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 3  Painting I
This studio art course covers the basic ideas, methods, and materials of painting as a means of expression in the visual arts. Students use the oil media to explore basic problems of color, form, and composition using traditional and contemporary methods. Students will engage in the creative process. An informed personal reaction and critical response to both historical and class work will be fostered. (Prerequisites: None). (3 C/6 lect/studio, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

ART 1164 3  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 3  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 3  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 3  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). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities and Art.

ART 1212 3  Figure Drawing
This studio art course focuses on drawing the human figure. Students will primarily work from the model both nude and clothed. This course allows the students to expand their knowledge of historical viewpoints, media exploration and contemporary art issues as they relate to the figure. (Prerequisites: None). (3 C). MnTC: Goal 2/Critical Thinking, Goal 6/Humanities and Art.

ART 1223 3  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/3 lect, 0 lab).

ART 1232 3  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 3  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).
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<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ART 1284</td>
<td>3</td>
<td>Darkroom Photography</td>
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<td>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.</td>
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<tr>
<td>ART 2224</td>
<td>3</td>
<td>Graphic Design II</td>
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<td>This course builds on ART 1124, Graphic Design I. The class further sharpens visual conceptualization and technical skills in graphic design. Students will develop a system to conceptualize solutions, solve visual problems using the principles of design, and execute designs leading to the production of portfolio quality pieces. Projects will focus on one or more of the disciplines of Graphic Design. (Prerequisites: ART 1124). (3 C/6 lect/studio, 0 lab).</td>
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<tr>
<td>ART 2230</td>
<td>3</td>
<td>Digital Art II</td>
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<td>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).</td>
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<tr>
<td>ART 2234</td>
<td>3</td>
<td>Drawing II</td>
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<td>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 or equivalent). (3 C/6 lect/studio, 0 lab).</td>
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<tr>
<td>ART 2237</td>
<td>3</td>
<td>Animation and 3D Modeling</td>
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<td>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: ART 1134 or equivalent). (3 C/6 lect/0 lab).</td>
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<tr>
<td>ART 2240</td>
<td>3</td>
<td>Motion Graphics I</td>
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<td>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).</td>
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<tr>
<td>ART 2241</td>
<td>3</td>
<td>Motion Graphics II</td>
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<td>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).</td>
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<tr>
<td>ART 2244</td>
<td>3</td>
<td>Painting II</td>
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<td>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 lect/studio, 0 lab).</td>
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<tr>
<td>ART 2264</td>
<td>3</td>
<td>Ceramics II</td>
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<td>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).</td>
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### 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 Portfolio

This course provides the fundamentals required to create a portfolio, a resume and an artist statement. The portfolio will bring together a body of work and will include the creation of new work for the purposes of transferring to a four-year art program, for job placement or for exhibition. There will be an accompanying presentation of the work that will be representative of the student's accomplishments at RCTC. (Prerequisite: Permission of instructor). (2 C/1 lect, 1 lab).

### 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).

### 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 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.

### 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 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).

### Environmental Biology

This is a one-semester course that introduces students to applied aspects of environmental science. It provides students with a broad overview of the concepts of ecology, systems and interrelationships among organisms and their physical environment, and current issues in environmental science. Students will examine humans' role in the natural world and the impact of the growth of the human population and the increase in humans' technological ability to make changes in the world. Students will be encouraged to explore societal, political, economic and personal value systems with regard to environmental issues. (Prerequisites: College level reading and writing). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.
### BIOL 1101  3  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  3  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  4  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  4  Human Biology
This course is a one-semester study of the biology of the human body. Each of the component systems will be studied in order to develop an understanding of how each part contributes to the whole. This knowledge will be applied to the analysis of current health and social issues. Laboratory sessions are designed to correlate with lecture topics. Dissection of appropriate animal specimens is included. (Prerequisites: High school Biology (1 year) or BIOL 1101). (4 C/3 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

### BIOL 1127  4  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  3  Principles of Anatomy & Physiology II
This course is part 2 of the 2-semester anatomy and physiology sequence that emphasizes anatomy and covers the autonomic nervous system, special senses, endocrine system, digestive system, respiratory system, cardiovascular system, lymphatic system, urinary system and reproductive system. The focus of this course is primarily the structure of the organs and body systems. (Prerequisites: BIOL 1127; College level reading and writing and MATH 0098 or equivalent). (3 C/2 lect, 2 lab). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences.

### BIOL 1214  1  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  1  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  2  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.
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<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 1217</td>
<td>4</td>
<td>Anatomy &amp; Physiology I</td>
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<tr>
<td>BIOL 1218</td>
<td>4</td>
<td>Anatomy &amp; Physiology II</td>
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<tr>
<td>BIOL 1219</td>
<td>1</td>
<td>Anatomy and Physiology of the Nervous System</td>
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<tr>
<td>BIOL 1220</td>
<td>4</td>
<td>Concepts of Biology</td>
</tr>
<tr>
<td>BIOL 1230</td>
<td>4</td>
<td>Survey of Life Forms</td>
</tr>
<tr>
<td>BIOL 1300</td>
<td>3</td>
<td>Biological Applications of GIS Technology</td>
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<tr>
<td>BIOL 1400</td>
<td>2</td>
<td>Environmental Science Internship</td>
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</table>
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 4 Fundamentals of Biotechnology

This is a semester-long, lab-intensive course for students currently employed in or ultimately seeking employment in a clinical or research laboratory with a health care focus. This course is specifically designed for students in Biotechnology programs at RCTC. The goal of this course is to provide the student with both a conceptual and practical understanding of basic lab techniques with particular emphasis on developing the skills to perform these specific techniques independently upon completion of the course. (Prerequisites: Grade of "C" or better in CHEM 1127 and BIOL 1220 (or equivalents), College level reading and writing. Co-Requisites: HCCC 1200). (3 C/1 lect, 4 lab).

BIOL 2021 4 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 4 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 4 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 2300 4 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.

BTEC 1001 1 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).
<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Description</th>
<th>Prerequisites</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 1010</td>
<td>Computer Basics</td>
<td>This course covers an introduction to the computer through demonstration, discussion, and hands-on experience with a PC. Students will do projects using word processing, spreadsheet, and database software. (Prerequisites: BTEC 1001, the D2L Online Tutorial, or the instructor's permission is required when the course is offered online. Students must have successfully completed READ 0800 or are testing at READ 0900 reading skills). (1 C/1 hrs per wk).</td>
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<tr>
<td>BTEC 1015</td>
<td>Essential Computer Applications</td>
<td>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). (2 C).</td>
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<tr>
<td>BTEC 1020</td>
<td>Keyboarding</td>
<td>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. (Prerequisites: College level reading and writing skills). (1 C).</td>
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<tr>
<td>BTEC 1030</td>
<td>Keyboarding Speed/Accuracy</td>
<td>Students registering for this course need to type 35 GWPR 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 in individualized to the students skills and abilities.(Prerequisites: College-level reading and writing). (1 C/2 hrs per wk).</td>
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<tr>
<td>BTEC 1050</td>
<td>Keyboarding for Professionals</td>
<td>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).</td>
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</tr>
<tr>
<td>BTEC 1150</td>
<td>Introduction to Desktop Publishing</td>
<td>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).</td>
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</tr>
<tr>
<td>BTEC 1220</td>
<td>Human Relations in Organizations</td>
<td>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).</td>
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<tr>
<td>BTEC 1320</td>
<td>Document Production</td>
<td>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).</td>
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<td>3</td>
</tr>
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</table>
BTEC 1510 2  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 2  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 2  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 2  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 3  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 2  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 3  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 3  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).
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).

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).

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).

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).

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).

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).

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.

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; Co-requisites: BTEC 1320). (3 C).
<table>
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</thead>
<tbody>
<tr>
<td>BTEC 2350</td>
<td>Microcomputer Business Applications</td>
<td>This course is designed to provide &quot;hands-on&quot; 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).</td>
<td>(3 C).</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 2355</td>
<td>Microsoft Business Applications</td>
<td>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).</td>
<td>(4 C).</td>
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</tr>
<tr>
<td>BTEC 2360</td>
<td>Advanced Excel</td>
<td>This course is designed for continued development of advanced spreadsheet knowledge and skills using the Microsoft Excel program. Knowledge of the features of a spreadsheet program will be expanded. Students will complete advanced applications using Microsoft Excel. Integration with other software programs will be briefly covered. (Prerequisites: BTEC 1001, D2L Online Tutorial or the instructor’s permission is required when the course is offered online; BTEC 2350 or BTEC 2355 or instructor's permission. College-level reading skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better).</td>
<td>(2 C/2 hrs per wk).</td>
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</tr>
<tr>
<td>BTEC 2365</td>
<td>Advanced Microcomputer Business Applications</td>
<td>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).</td>
<td>(3 C).</td>
<td>3</td>
</tr>
<tr>
<td>BTEC 2370</td>
<td>Advanced Access</td>
<td>This course expands on the fundamentals of databases: multiple tables, advanced queries, design of forms and reports, command buttons, exchanging data and managing and securing a database. The student will develop a broad background in the use of Microsoft Access. (Prerequisites: BTEC 1001, D2L Online Tutorial or instructor's permission is required when the course is offered online; BTEC 2350 or BTEC 2355, BTEC 2200. College-level reading skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better).</td>
<td>(2 C/2 hrs per wk).</td>
<td>2</td>
</tr>
<tr>
<td>BTEC 2450</td>
<td>PowerPoint</td>
<td>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).</td>
<td>(1 C).</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 2600</td>
<td>Microsoft Office Outlook</td>
<td>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).</td>
<td>(1 C).</td>
<td>1</td>
</tr>
<tr>
<td>BTEC 2610</td>
<td>Medical Specialties and Pharmacology</td>
<td>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).</td>
<td>(2 C/2 hrs per wk).</td>
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</tbody>
</table>
This document contains a table of courses with brief descriptions of each. Here is a table representation of the course information:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTEC 2614</td>
<td>3</td>
<td>Customer Service Skills and Concepts</td>
</tr>
<tr>
<td>BTEC 2615</td>
<td>2</td>
<td>Applied Customer Service Skills and Concepts</td>
</tr>
<tr>
<td>BTEC 2616</td>
<td>2</td>
<td>Professionalism in the Workplace</td>
</tr>
<tr>
<td>BTEC 2617</td>
<td>2</td>
<td>Support Role in Meeting/Event Planning</td>
</tr>
<tr>
<td>BTEC 2622</td>
<td>3</td>
<td>Current Workplace Technology</td>
</tr>
<tr>
<td>BTEC 2640</td>
<td>3</td>
<td>Healthcare Documentation Fundamentals</td>
</tr>
<tr>
<td>BTEC 2650</td>
<td>3</td>
<td>Medical Office Procedures</td>
</tr>
<tr>
<td>BTEC 2660</td>
<td>1</td>
<td>Job Shadowing Experience, Medical Administrative Assistant</td>
</tr>
<tr>
<td>BTEC 2840</td>
<td>2</td>
<td>BTEC Internship I</td>
</tr>
</tbody>
</table>

**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 Internship II**

Internship is the opportunity to earn credit for work experience related to the student's career objective. A total of 3 credits may be earned per semester. (Prerequisites: Major in BTEC Program. Successfully completed BTEC 1320, BTEC 2350, BTEC 23330, BTEC 2870, BTEC 2450, BTEC 2200, BTEC 1230 and BTEC 2220). (3 C/48 hours of work experience per semester credit).

**BTEC 2870  1  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  1  Creating and Showcasing a Professional Portfolio**

This course will explain electronic portfolios, and it will explain what is included in the electronic portfolio when it is used as a type of resume. This course will utilize the eFolio Minnesota management program. Students can create their information and then access their information and revise it at any time using the Internet. Students will decide what information they want to show to the viewers. Students will look at the different parts of the eFolio Minnesota management program and decide what parts they want to use. (Prerequisites: BTEC 1001, D2L Online Tutorial or instructor's permission is required when the course is offered online. Basic knowledge of the computer keyboard. College-level reading and writing skills: Appropriate score on RCTC placement test or appropriate developmental course with grade of C or better.) (1 C/1 hr per wk).

**BU 1500  4  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  1  Welding Theory and Safety**

This course covers actual use of arc, gas, and M.I.G., T.I.G., welding along with proper safety and equipment care. Recommended: Basic technical skills/knowledge; High School Diploma or G.E.D. (Prerequisites: None). (1 C).

**BU 1520  1  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  1  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  4  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  2  Plumbing Lab**

Actual plumbing situations will be encountered and students will solve plumbing installation problems. Other activities include using pipe wrenches, identifying different types of pipe and fittings, and establishing proper draining. (Prerequisites: Concurrent with BU 1530). (2 C/0 lect, 2 lab, 0 OJT).

**BU 1560  2  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).
### 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).

### 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).

### 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).

### 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).

### 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).

### 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).

### 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).

### Refrigeration Theory

This course covers fundamentals of refrigeration, tools and materials, basic refrigeration systems, compression systems, refrigerant controls, refrigerants, domestic refrigerators and freezers, and principles of installing and servicing small hermetic systems. (Prerequisites: None). (3 C/3 lect, 0 lab, 0 OJT).

### Refrigeration Lab

This course covers lab experiences working with tools, tubing, compressors, refrigerant controls, refrigerant, and testing equipment. (Prerequisites: BU 2500). (3 C/0 lect, 3 lab, 0 OJT).

### Commercial Refrigeration

This course covers fundamentals of Commercial and Special Refrigeration; condensers, evaporators, compressors, trouble-shooting. The concepts will be applied in BU 2518. (Prerequisites: BU 2500). (3 C/3 lect, 0 lab, 0 OJT).
### BU 2518 Commercial Refrigeration Lab
This course covers lab experience in commercial refrigeration. Students will operate and troubleshooting refrigeration equipment including compressors, flow controls, and heat exchangers. (Prerequisites: BU 2500). (2 C/2 lect, 0 lab, 0 OJT).

### BU 2530 Refrigerant Certification
This course is designed to assist refrigeration and air conditioning technicians in becoming successfully certified. Technician will be EPA approved and certified in the areas tested which include Type I, II, III, or Universal if all sections are passed. (Prerequisites: None). (1 C/1 lect, 0 lab, 0 OJT).

### BU 2555 Building Utilities Mechanics Co-Op
This course is designed to provide the student with a purposeful occupational experience in the building utilities mechanic field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. 225 hours of on the job training are required. (Prerequisites: Concurrent or successful completion of BU 2500 and BU 2512). (5 C).

### BU 2602 HVAC/Refrigeration Systems Theory
This course covers principles of HVAC and air conditioning systems. Furnaces, boiler, air conditioners, heat pumps, economizers, heating and cooling decks, and zones are identified and explained. (Prerequisites: BU II courses or background in electricity). (4 C/4 lect, 0 lab, 0 OJT).

### BU 2612 HVAC/Refrigeration Systems Lab
This course covers principles of HVAC and air conditioning systems. Furnaces, boiler, air conditioners, heat pumps, economizers, heating & cooling decks, and zones are analyzed and operated. (Prerequisites: BU II courses or background in electricity and concurrent or successfully completed BU 2602). (2 C/0 lect, 2 lab, 0 OJT).

### BU 2622 HVAC Control Systems Lab
This course covers the principles of HVAC controller systems. Various types of computer aided control, electro-mechanical, electronic, and pneumatic systems will be analyzed and operated with an emphasis put on wiring and troubleshooting of the control circuits. (Prerequisites: Successful completion of BU II courses or background in electricity and concurrent or successful completion of BU 2632). (2 C/0 lect, 2 lab, 0 OJT).

### BU 2632 HVAC Control Systems Theory
This course covers the principles of HVAC controller systems. Various types of electro-mechanical, electronic, and pneumatic systems will be presented and discussed with an emphasis put on computer aided control. (Prerequisites: BU II courses or background in electricity). (3 C/3 lect, 0 lab, 0 OJT).

### BU 2642 Boiler Review
Students will review boiler regulations, fittings, Minnesota law pertaining to high and low pressure boilers and turbines including hot water systems. (Prerequisites: None). (1 C/1 lect, 0 lab, 0 OJT).

### BU 2651 Building Utilities Mechanic Co-op
This course is designed to provide the student with a purposeful occupational experience in the building utilities mechanic field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. 36 hours of on-the-job training is required. (Prerequisites: All first year courses and/or instructor permission). (1 C/0 lect, 0 lab).

### BU 2655 Building Utilities Mechanics Co-Op
This course is designed to provide the student with a purposeful occupational experience in the building utilities mechanic field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. One credit of co-op is equal to 36 hours of on-the-job training. (Prerequisites: All first year courses and/or instructor permission). (1 C/0 lect, 0 lab).

### BU 2661 Building Utilities Mechanic Co-op
This course is designed to provide the student with a purposeful occupational experience in the building utilities mechanic field. Each co-op experience is individualized. A training plan is created for each student in conjunction with the training site to provide experience related to the skills and knowledge acquired in the program. 72 hours of on-the-job training is required. (Prerequisites: Concurrent or successful completion of BU 2500, 2512, 2602 and 2632). (2 C/0 lect, 0 lab).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>BUS 1101</td>
<td>3</td>
<td>Introduction to Business</td>
<td>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).</td>
</tr>
<tr>
<td>BUS 1144</td>
<td>3</td>
<td>Opening and Managing A Small Business</td>
<td>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).</td>
</tr>
<tr>
<td>BUS 1307</td>
<td>3</td>
<td>Legal Issues for Supervisors</td>
<td>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).</td>
</tr>
<tr>
<td>BUS 2101</td>
<td>3</td>
<td>Personal Finance</td>
<td>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).</td>
</tr>
<tr>
<td>BUS 2144</td>
<td>3</td>
<td>Introduction to E-Business</td>
<td>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).</td>
</tr>
<tr>
<td>BUS 2150</td>
<td>3</td>
<td>Introduction to International Business</td>
<td>This course is an overview of the global perspective of business, examining the need for professional business practices, ethics, protocol/cultural behavior, etiquette, and social responsibility of international trade and strategy. The course will address the economics and politics, including current and pending trade agreements, of international trade and investment; the global monetary systems; and how/why the world's countries differ. (Prerequisites: None, but BUS 1101 is recommended). (3 C/3 lect, 0 lab).</td>
</tr>
<tr>
<td>BUS 2201</td>
<td>3</td>
<td>Principles of Marketing</td>
<td>This course provides the student with an introduction to marketing analysis, planning, decision-making and program implementation. Students gain an understanding of the principles of marketing and their interrelationship through a business marketing simulation and development of a formal market plan. (Prerequisites: College level reading, math, and problem solving-proficiency). (3 C/3 lect).</td>
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<tr>
<td>BUS 2202</td>
<td>3</td>
<td>Promotional Strategies</td>
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|             |         | 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    | 3       | 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    | 4       | Business & Economic Statistics |
|             |         | This course is an introduction and overview of statistics. Topics will include descriptive statistics, probability, sampling methods, confidence intervals, one and two sample tests of hypothesis, analysis of variance, and linear regression. Statistical calculators and software will be used extensively throughout the class. Emphasis is on application of statistical techniques and procedures for solving business-related problems, rather than mathematical theories. (Prerequisites: College level reading and MATH 0099). (4 C/4 lect).
| BUS 2214    | 3       | 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    | 3       | 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    | 3       | 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    | 3       | Principles of Management |
|             |         | This course provides an analysis of the functions performed by managers of all types of organizations. Current applications in: strategic planning and control, managing workplace dynamics, managerial ethics and corporate social responsibility, leadership, teamwork in organizations, and developing effective communications will be emphasized. (Prerequisites: College level reading, math, and problem-solving proficiency). (3 C/3 lect).
| BUS 2235    | 3       | 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    | 3       | 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  1  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  4  Business Internship**  
Work experience program designed to help business students apply classroom information on the job. Designed to make the work experience a learning experience so that the student will be able to better understand the practical application of business techniques. (Prerequisites: None). (2-4 C/0 lect, 2-4 OJT).

**BUS 2317  3  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  3  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  3  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 2317). (3 C).

**CAD 1039  4  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  3  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  2  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).
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).

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).

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).

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).

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).

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).

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).

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).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CAD 1220</td>
<td>3</td>
<td>Engineering Drafting</td>
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<tr>
<td>CAD 1221</td>
<td>3</td>
<td>Technical Drafting</td>
</tr>
<tr>
<td>CAD 1222</td>
<td>2</td>
<td>Dimensioning and Tolerancing</td>
</tr>
<tr>
<td>CAD 1223</td>
<td>2</td>
<td>Technical Drafting I</td>
</tr>
<tr>
<td>CAD 1224</td>
<td>2</td>
<td>Engineering Drafting I</td>
</tr>
<tr>
<td>CAD 1225</td>
<td>2</td>
<td>Engineering Drafting II</td>
</tr>
<tr>
<td>CAD 1229</td>
<td>2</td>
<td>Technical Drafting II</td>
</tr>
<tr>
<td>CAD 1230</td>
<td>1</td>
<td>CAD Data Management</td>
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</tbody>
</table>

**CAD 1220 Engineering Drafting**
This course is a basic class in engineering drafting which is designed to provide working knowledge of the industry's graphic language and detailed drawing using 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 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).
<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>CAD 1234</td>
<td><strong>CAD I</strong></td>
<td>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).</td>
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<tr>
<td>CAD 1235</td>
<td><strong>CAD II (Computer-Aided Drafting II)</strong></td>
<td>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).</td>
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<td>3</td>
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<tr>
<td>CAD 1323</td>
<td><strong>Basic Dimensioning</strong></td>
<td>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).</td>
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<td>3</td>
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<tr>
<td>CAD 2000</td>
<td><strong>Introduction to CAM</strong></td>
<td>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).</td>
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<tr>
<td>CAD 2323</td>
<td><strong>Advanced Dimensioning</strong></td>
<td>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).</td>
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<tr>
<td>CAD 2324</td>
<td><strong>Special Projects I</strong></td>
<td>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).</td>
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<tr>
<td>CAD 2335</td>
<td><strong>Working Drawing and Design</strong></td>
<td>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).</td>
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<tr>
<td>CAD 2358</td>
<td><strong>Machine Design</strong></td>
<td>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).</td>
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<tr>
<td>CAD 2400</td>
<td><strong>Reverse Engineering and Rapid Prototyping</strong></td>
<td>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).</td>
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<td>2</td>
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</table>
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).

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).

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).

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).

Drafting as it pertains to the heating, ventilation, and air conditioning industry. (Prerequisites: CAD 1230, 1234, and 1235). (3 C/1 lect, 4 lab).

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).

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).

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).

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).
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).

CD 1001 3 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).

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).

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).

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).

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).

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).

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).
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CD 1312</td>
<td>4</td>
<td>Preschool Principles and Practices</td>
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<tr>
<td>CD 1314</td>
<td>4</td>
<td>School-Age Principles and Practices</td>
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<tr>
<td>CD 1320</td>
<td>3</td>
<td>Observing and Assessing</td>
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<tr>
<td>CD 1510</td>
<td>1</td>
<td>Balancing Work and Family</td>
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<tr>
<td>CD 2002</td>
<td>3</td>
<td>Introduction to Youth Work</td>
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<tr>
<td>CD 2101</td>
<td>4</td>
<td>Child and Youth Issues</td>
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<tr>
<td>CD 2105</td>
<td>3</td>
<td>Child and Youth Issues</td>
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<tr>
<td>CD 2241</td>
<td>4</td>
<td>Experiential Learning</td>
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</table>

**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).

**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).

**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).

**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).

**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).

**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).

**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).

**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).
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CD 2540</td>
<td>3</td>
<td>Supporting Children's Mental Health</td>
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<td>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).</td>
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<tr>
<td>CD 2570</td>
<td>3</td>
<td>Multicultural Learning Experiences</td>
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<td>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).</td>
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<tr>
<td>CD 2580</td>
<td>3</td>
<td>Creative Development Experiences</td>
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<td>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).</td>
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<tr>
<td>CD 2600</td>
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<td>Professional Leadership</td>
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<td>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).</td>
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<tr>
<td>CD 2630</td>
<td>3</td>
<td>Children and Youth with Special Needs</td>
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<td>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/3 lect, 0 lab).</td>
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<tr>
<td>CD 2640</td>
<td>3</td>
<td>Curriculum Planning</td>
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<td>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).</td>
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<td>CD 2810</td>
<td>3</td>
<td>Practicum I</td>
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<td>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).</td>
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<tr>
<td>CD 2840</td>
<td>3</td>
<td>Practicum II</td>
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<td>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).</td>
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**CHEM 1031 3 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 3 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 3 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 1 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 4 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 4 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 3 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 4 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.
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<tr>
<td>CHEM 1128</td>
<td>4</td>
<td>Chemical Principles II</td>
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<td>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).</td>
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<tr>
<td>CHEM 1129</td>
<td>3</td>
<td>General Chemistry II</td>
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<td>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).</td>
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<tr>
<td>CHEM 2100</td>
<td>4</td>
<td>Survey of Organic Chemistry</td>
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<td>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).</td>
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<tr>
<td>CHEM 2127</td>
<td>4</td>
<td>Organic Chemistry I</td>
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<td>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).</td>
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<tr>
<td>CHEM 2128</td>
<td>4</td>
<td>Organic Chemistry II</td>
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<td>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).</td>
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<tr>
<td>CHEM 2297</td>
<td>1</td>
<td>Chemistry Research</td>
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<td>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).</td>
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<tr>
<td>CHEM 2298</td>
<td>1</td>
<td>Chemistry Research II</td>
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<td>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).</td>
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<tr>
<td>CHEM 2800</td>
<td>3</td>
<td>Biochemistry</td>
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<td>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).</td>
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<tr>
<td>CHIN 1101</td>
<td>4</td>
<td>Beginning Chinese I</td>
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<td>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.</td>
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### 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.

### 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).
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. Curing this internship, the CHW student must work 96 hours with one of the clinical agencies. (Prerequisite: Appropriate RCTC test score for placement in READ 0900; Co-requisites: CHW 1000, CHW 1010, CHW 1020, CHW 1030, CHW 1040, CHW 1050, CHW 1055). (1 C).

COMM

COMM 1114  3  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  3  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  3  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 development 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  3  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  3  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  3  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  3  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  1  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).

COMP

COMP 0243  5  Int/Program:C
Intro to Program:C

COMP 1112  3  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  3  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  3  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  3  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  3  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  3  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  4  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  4  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  4  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  4  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).

CR 1600  3  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  2  Residential Blueprint Reading
The purpose of this course is to develop fundamental skills necessary to interpret blueprints used the building trades. Topics included will be blueprint symbols and abbreviations, interpreting structural details, and "hands on" blueprint interpretation. (Prerequisites: None). (2 C/2 lect, 0 lab, 0 OJT).

CR 1612  2  Shop Practice I
In this course students are taught to use and maintain hand tools portable power tools and woodworking machines in a safe and efficient manner. (Prerequisites: CR 1511). (2 C/0 lect, 2 lab, 0 OJT).

CR 1622  3  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  5  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  2  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  2  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).
**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).

**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).

**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).

**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).

**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).

**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).

**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).

**Homeland Security/Defense**  
This course explores the concept of national, state, and local defense with attention to the changing issues for the criminal justice system. Students will employ scientific theories and methods to analyze the changing roles of Military, law enforcement, and private security in defense. Topics will include terrorism, weapons of mass destruction, civil rights and constitutional issues with defending the United States. (Prerequisite: ENGL 1117, LAWE 1105, LAWE 1112). (3 C).

**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).

**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 3  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 3  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 3  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).

### CRSC

#### CRSC 1010 4  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 4  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 4  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 4  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).

### CYFS

#### CYFS 1001 3  Seeing Children and Youth
This course introduces the subject of children and youth with a focus on young people in everyday life. Students will watch, read about, wonder about, describe and analyze, and look up information about children and youth. Exploration of career opportunities, roles, and responsibilities working with and on behalf of children and youth is also included. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/2 lect, 2 lab).
**CYFS 1210 3  Child Growth and Youth Development**  
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. Health 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: ENGL 0960 and READ 0900). (3 C/2 lect, 1 lab).

**CYFS 1212 1  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 3  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. Health 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 3  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 3  Learning Environments**  
This course presents an overview of knowledge and skills related to providing appropriate environments for young children from birth to age 9. Students will examine the teacher’s role in supporting development and fostering the joy of learning for all young children emphasizing the essential role of play. An overview of planning activities and teaching through group time, small groups, interest centers, will be included. (Prerequisites: Appropriate score on RCTC placement test for READ 0840 and ENGL 0980). (3 C/2 lect/1 lab).

**CYFS 1310 4  Infant/Toddler Principles and Practices**  
This course provides an overview of infant/toddler development and the central concepts, methods, and content areas in provide appropriate environments that support learning in each content area for all children. Designing, implementing, and evaluating meaningful, challenging curriculum requires alignment with appropriate early learning standards and knowledgeable use of the discipline’s resources to focus on key experiences for each age group and each individual child. (Prerequisites: Appropriate test placement score into ENGL 1117, CD 1210 or instructor permission). (4 C/3 lect, 1 lab, 0 OJT).

**CYFS 1314 4  School-Age Principles and Practices**  
This course provides an examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationships, constructive adult-child interactions. Students will examine the teacher’s role in supporting development and fostering learning for school-age children. An overview of content areas will include but not be limited to: language and literacy, social and emotional learning, sensory learning, math and science, and art and creativity. (Prerequisites: Appropriate score on RCTC placement test for ENGL 1117. CD 1210 or instructor permission). (4 C/3 lect, 1 lab).
**CYFS 1320  3  Observing and Assessing**  
This course examines the appropriate use of assessment and observation strategies to document development, growth, and learning in order to promote children the success of children and youth and maintain a quality program. Recording strategies, rating systems, portfolios, and multiple assessment methods will be explored. (Prerequisites: CD 1210 or instructor permission). (3 C/2 lect, 1 lab).

**CYFS 1342  2  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. (2 C).

**CYFS 1505  3  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 and ENGL 0910 and ENGL 0980 with a C or higher; OR test into ENGL 1117 and CYFS 1210 or Instructor permission). (3 C/3 lect, 0 lab).

**CYFS 1510  1  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  3  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  4  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, sex 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  3  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, sex orientation, gender, disability, substance abuse, community violence in order to develop awareness, understanding, and practical skills needed to work with children and youth from diverse backgrounds. (Prerequisites: Appropriate score on RCTC placement test for READ 0840, ENGL 0910 and ENGL 0980). (3 C/3 lect, 0 lab).

**CYFS 2241  4  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).
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credits (Lecture, Lab)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYFS 2250</td>
<td>Foundations of Language and Literacy</td>
<td>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).</td>
<td>(3 C/2 lect, 1 lab)</td>
<td>3</td>
</tr>
<tr>
<td>CYFS 2540</td>
<td>Supporting Children's Mental Health</td>
<td>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).</td>
<td>(3 C/3 lect, 0 lab)</td>
<td>3</td>
</tr>
<tr>
<td>CYFS 2570</td>
<td>Multicultural Learning Experiences</td>
<td>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).</td>
<td>(3 C/2 lect, 1 lab, 0 OJT)</td>
<td>3</td>
</tr>
<tr>
<td>CYFS 2580</td>
<td>Creative Development Experiences</td>
<td>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).</td>
<td>(3 C/2 lect, 1 lab, 0 OJT)</td>
<td>3</td>
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<tr>
<td>CYFS 2600</td>
<td>Professional Leadership</td>
<td>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).</td>
<td>(3 C/3 lect, 0 lab)</td>
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<tr>
<td>CYFS 2630</td>
<td>Children and Youth with Special Needs</td>
<td>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).</td>
<td>(3 C/2 lect, 1 lab)</td>
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<tr>
<td>CYFS 2640</td>
<td>Curriculum Planning</td>
<td>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).</td>
<td>(3 C/3 lect, 0 lab)</td>
<td>3</td>
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<tr>
<td>CYFS 2810</td>
<td>Practicum I</td>
<td>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).</td>
<td>(3 C/0 lect, 0 lab, 3 OJT)</td>
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This course provides an 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).

DA 1200 3 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 3 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 2 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 6 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 2 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 2 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).
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).

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).

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).

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).

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).

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).

Re-Assessment Prior Program Learning
Dental Assistant course
DA  2292  1  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).

DANC
DANC  1101  3  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  3  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  3  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  3  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.

DH
DH  1510  2  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  3  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  4  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  2  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  5  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 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  2  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  2  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  3  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  6  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  2  Pain Control**
A lecture and laboratory course in the basic and current concepts in the administration of local anesthetic 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  2  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  3  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  6  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).
### 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 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, DA 1210, 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).

### Prin Econ - Micro

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). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 10/People and the Environment.

### Principles of Economics: Micro

This course provides in depth understanding of microeconomic behaviors by consumers and business leaders in markets that illustrate perfect competition, monopoly, oligopoly, and monopolistic competition. Concepts include supply and demand, marginal analysis, efficient resource allocation, and profit or loss. Contemporary issues may include wage determination, or income distribution, or regulation of industry, or irregularities like price discrimination. Public policy perspectives may include economic insight about externalities (such as climate control, education, vaccines, pollution, or over-population). (Prerequisites: College level reading and writing; MATH 1113 or 1115 or permission of instructor). (4 C). MNTC: Goal 2/Critical Thinking, Goal 5/History, Social and Behavioral Sciences, Goal 10/People and the Environment.

### Principles of Economics: Macro

This course provides in depth understanding of macroeconomic theory and practice. Emphasis is placed on free markets and capitalism, though utopian and socialism are not ignored. Keynesian theory or aggregate supply and demand are used to explain business fluctuations. Aggregate data collection and use (such as GDP, unemployment, inflation, money supply, and interest rates) are basic concepts. International trade or finance and policy-making at the national and international levels are important issues with perspectives grounded in macroeconomic principles. The real-side and the monetary-side of the economy are presented. (Prerequisites: College level reading and writing; MATH 1113 or 1115, or permission of instructor). (4 C). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 8/Global Perspectives.
EMC 1121  2  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  1  First Responder Refresher
This course is a 16 hour refresher class designed to update the currently certified First Responder. This course is designed to meet the requirements of the State of Minnesota EMS Regulatory Board (EMSRB) and the National Registry of EMT’s.  (Prerequisites: Current CPR card, EMC 1121 or equivalent).  (1 C).

EMT 1200  8  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  4  Ambulance Operations for the EMT
This course is designed for practicing EMTs who desire additional formal education in EMS or are seeking admission to the paramedic program. The course will allow EMTs to enhance their knowledge, skills and abilities through a variety simulated patient encounters.  (Prequisites: College level reading, Current EMT Certification, current BLS for the Healthcare Provider card, valid drivers license and ability to pass drivers license check in accordance with MNSCU polices. Special attention will be paid to the EMT variances authorized by the State of Minnesota).

ENGL 0950  4  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  4  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  3  Introduction to Technical Communication
This course focuses on the types of writing found in business and technical settings. Students learn to plan, write, revise, and present a range of technical documents following the format and style guidelines of their profession. Textual and visual elements of design are studied and utilized, as well as internet-specific document design and presentation. Collaboration, communication in the professional setting, and technical documentation for the student's field of study are included.  (Prerequisites: College level writing skills: Appropriate score on RCTC placement test or completion of appropriate developmental course(s) with grade of C or better).  (3 C/3 lect, 0 lab).  MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking.

ENGL 1117  4  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 4 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 3 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 3 Women’s Perspectives

The focus of this course is on women’s autobiography as a genre. Students will analyze autobiographical accounts of women from developing countries as well as the developed world that have used the various forms of autobiography to shape their own life stories and in doing so preserved their history and culture. This class is writing intensive. (Prerequisites: College level reading and writing skills). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

### ENGL 1150 3 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 3 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). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

### ENGL 2230 3 Minnesota Writers

In this course students will read and discuss the writings of Minnesota authors, chosen for inclusion based on three criteria: the writer was born and raised in Minnesota and/or the setting is Minnesota, and, if fiction, the characters are recognizable as Minnesotan. Students will begin the semester defining the term Minnesotan. (Prerequisites: College-level reading/writing skills). (3 C). MNTC: Goal 1/Written and Oral Communication, Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy.

### ENGL 2252 3 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 3 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. (Prerequisites: 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.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Lecture</th>
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<tr>
<td>ENGL 2261</td>
<td>Literary Magazine Publication Lab</td>
<td>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).</td>
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<td>ENGL 2273</td>
<td>Early American Literature</td>
<td>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.</td>
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<td>ENGL 2274</td>
<td>Modern American Literature</td>
<td>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 7/Human Diversity.</td>
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<td>ENGL 2275</td>
<td>Asian-American Literature</td>
<td>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.</td>
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<td>ENGL 2276</td>
<td>Best Sellers</td>
<td>This course examines the definitions, history, and patterns of &quot;best sellers&quot;. 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 represented 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.</td>
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<td>ENGL 2277</td>
<td>Women and Literature</td>
<td>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 &quot;Women &amp; the Development of the Novel,&quot; &quot;Images of Women in Fiction,&quot; or &quot;Afro-American Women Writers.&quot; 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.</td>
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<td>ENGL 2284</td>
<td>Literature and the Environment</td>
<td>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.</td>
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<td>ENGL 2290</td>
<td>Fiction Writing</td>
<td>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.</td>
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ENGL 2297 3 Children's Literature
This course focuses on locating and evaluating early literacy, primary and intermediate children's books. Standards for critical evaluation will evolve through extensive reading, discussion, research, and writing. Course content will focus on the history of children's literature, children's 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 3 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 1 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 3 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.

ENGR 1101 2 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 4 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 4 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).
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<tr>
<th>Course Code</th>
<th>Credits</th>
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<tr>
<td>ENGR 2211</td>
<td>3</td>
<td>Statics</td>
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<td>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).</td>
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<td>ENGR 2212</td>
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<td>Dynamics</td>
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<td>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).</td>
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<td>ENGR 2213</td>
<td>4</td>
<td>Linear Circuit Analysis I</td>
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<td>This course is a study of linear circuits, wherein techniques for the solution and ultimate understanding of electric circuits are studied. Topics include mesh analysis, nodal analysis, Thevinin's and Norton's methods for source transformations, equivalent circuits, natural and step response to RLC circuits, sinusoidal steady state analysis with phasors, and three phase power. The accompanying integrated laboratory allows students to study, measure, and troubleshoot these circuits. College level reading and writing skills are required. (Prerequisites: MATH 1128, PHYS 1127). (4 C/3 lect, 2 lab).</td>
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<td>ENGR 2214</td>
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<td>Linear Circuit Analysis II</td>
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<td>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).</td>
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<tr>
<td>ENGR 2221</td>
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<td>Deformable Body Mechanics</td>
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<td>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).</td>
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<td>ENGX 0900</td>
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<td>English Express</td>
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<td>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. (7-8 C).</td>
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<tr>
<td>EQSC 1100</td>
<td>3</td>
<td>Introduction to Equine Science</td>
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<td>This course provides students with the foundational knowledge and theory needed to complete other Equine coursework. This course introduces the student to the basics of equine evolution/history, breeds and types of horses, anatomy and physiology, conformation and movement, equine psychology/behavior, health care, nutrition, and management. (Prerequisites: None). (3 C).</td>
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<td>EQSC 1101</td>
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<td>Light Horse Management Theory</td>
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<td>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).</td>
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<td>EQSC 1102</td>
<td>3</td>
<td>Horse Handling and Training</td>
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<td>EQSC 1103</td>
<td>3</td>
<td>Equine Anatomy, Physiology and Disease Management</td>
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<td>EQSC 1104</td>
<td>2</td>
<td>Basic Horsemanship</td>
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<td>EQSC 1105</td>
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<td>EQSC 1106</td>
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<td>Equine Reproduction</td>
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<td>EQSC 1107</td>
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<td>Farrier Science</td>
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<td>EQSC 1108</td>
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<td>Stable Management Skills</td>
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<td>EQSC 1109</td>
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<td>Horse Selection &amp; Judging</td>
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<td>EQSC 1110</td>
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<td>Western Horsemanship I</td>
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<td>EQSC 1111</td>
<td>3</td>
<td>Western Horsemanship II</td>
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<td>EQSC 1112</td>
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<td>Western Horsemanship III</td>
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<tr>
<td>EQSC 1115</td>
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<td>Hunt Seat Equitation I</td>
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<td>EQSC 1116</td>
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<td>Hunt Seat Equitation II</td>
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<td>EQSC 1117</td>
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<td>Hunt Seat Equitation III</td>
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<td>EQSC 1119</td>
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<td>Horse Judging II</td>
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<td>EQSC 1120</td>
<td>3</td>
<td>Equine Business Practices</td>
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<tr>
<td>EQSC 1122</td>
<td>3</td>
<td>Horse Nutrition</td>
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<tr>
<td>EQSC 1124</td>
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<td>Dressage Concepts</td>
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**EQSC 1166 1  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 1  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-Prerequisites: EQSC 1100). (1 C/1 lect, 0 lab).

**EQSC 1177 1  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-Prerequisites: EQSC 1100). (1 C/1 lect, 0 lab).

**EQSC 1188 2  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 3  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). (2 C/3 lect, 0 lab).

**EQSC 1515 3  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/3 lect, 0 lab).

**EQSC 2100 1  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 4  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 4  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 3  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 3 Equine Horse Husbandry Internship
This course provides the student with practical application of theories learned during their course work. Under the supervision of a mentor in the horse industry, students will gain practical experience at an equestrian facility. Students will be required to meet written goals and objectives and undergo evaluations from their supervisor. (Prerequisites: Completion of EQSC 1101, 1102, 1108, 1109, and 1106, or permission of the instructor). (3 C).

ESCI

ESCI 1004 3 Earthquakes and Volcanoes
This course examines the causes and effects of earthquakes and volcanic activity. It also covers the impacts of earthquakes and volcanic eruptions, including secondary effects such as landslides, mudflows, and tsunamis; climatic effects; energy/mineral resources; and social disruption. Additionally, the mitigation of effects of natural disasters will be included. Two lectures and one laboratory per week. (Prerequisites: None; 12th grad reading and writing skills recommended). (3 C/2 lect, 2 lab hrs per week). MNTC: Goal 2/Critical Thinking, Goal 3/Natural Sciences, Goal 10/People and the Environment.

ESCI 1101 3 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 4 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 4 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 Earths 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 4 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  3  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  4  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  3  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.

FREN 1001  3  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  4  Beginning French I
This course is an introduction to the fundamentals of French language and culture within the context of daily life in French-speaking regions worldwide. Communication skills include: speaking, listening, reading and writing. Sensitivity to culture differences is emphasized. Designed for the student with NO previous foreign language study. This course uses audio, video, integrated websites, and news media. (Prerequisites: None). (4 C/4 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

FREN 1102  4  Beginning French II
This course is the conclusion of the introduction to fundamentals of French culture and language skills, including speaking, listening, reading, and elementary creative writing, with an emphasis on awareness and sensitivity to cultural differences. The course is taught in French and uses text, audio and video, online lab, various websites and news from Francophone communities throughout the world. (Prerequisites: FREN 1101 or equivalent). (4 C/4 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

FREN 1111  2  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 3 Intermediate French
Short literary forms (poetry, short stories, excerpts from novels or theater), and authentic texts such as songs and news articles are basis for reading, speaking, interpretation, vocabulary development and writing practice. Review/expansion of selected structure topics. Emphasis on discovering cultural, social, religious and linguistic values and differences within a Francophone cultural context. (Prerequisites: 1 yr college, 3-4 years of high school French or equivalent). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

FREN 2102 3 Intermediate French II
Intermediate French continued. Short literary forms such as poetry, short stories, excerpts from novels or theater, and authentic media such as news articles, music and art are basis for reading, interpretation, speaking, vocabulary development and writing practice (75%). Review/expansion of selected structure topics. Emphasis is on discovering cultural, social, religious and linguistic differences within a Francophone cultural context. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: Qualify for Beginning College English One year college, three years high school French or equivalent experience is required. (Prerequisites: 1 year college, 3-4 years of high school French or equivalent). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

FREN 2291 4 French III
Specially designed independent study project work.

FYEX
FYEX 1000 1 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).

GEM
GEM 1000 4 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 4 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 4 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 4 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).
GEOG 1614  3  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  3  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.

GERM 1101  4  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  4  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  2  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).

GFMT 1110  3  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  6  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).
**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).

**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).
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** 4  **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** 4  **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** 3  **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** 3  **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** 3  **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** 3  **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 play 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).
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).

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).

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).

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/1 credit).

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).

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).

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  2  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  2  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  3  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, online 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  3  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  1  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  1  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: Students 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  2  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).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
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<tbody>
<tr>
<td>HIST 1611</td>
<td>3</td>
<td>The Ancient World</td>
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<tr>
<td>HIST 1612</td>
<td>3</td>
<td>The Medieval World</td>
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<td>HIST 1613</td>
<td>3</td>
<td>Foundations of Western Civilization: From Ancient Greece to 1715</td>
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<td>HIST 1614</td>
<td>3</td>
<td>Europe in the Modern Age: 1715-Present</td>
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<td>HIST 1615</td>
<td>3</td>
<td>War and Peace in the 20th Century</td>
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<td>HIST 1617</td>
<td>3</td>
<td>World History to 1500</td>
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<td>HIST 1618</td>
<td>3</td>
<td>World History Since 1500</td>
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<td>Course Code</td>
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<tr>
<td>HIST 1622</td>
<td>3</td>
<td>History in Minnesota</td>
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<td>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.</td>
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<tr>
<td>HIST 1624</td>
<td>3</td>
<td>U.S. History to 1865</td>
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<td>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.</td>
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<td>HIST 1625</td>
<td>3</td>
<td>U.S. History 1865-Present</td>
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<td>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.</td>
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<td>HIST 1628</td>
<td>3</td>
<td>History of the Americas</td>
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<td>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.</td>
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<td>HIST 1631</td>
<td>3</td>
<td>Modern Asian Civilizations</td>
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<td>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.</td>
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<td>HIST 1640</td>
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<td>Women in History</td>
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<td>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.</td>
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<tr>
<td>HIST 1650</td>
<td>3</td>
<td>History of Religion</td>
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<td>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.</td>
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</table>
### 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.

### 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.

### 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.

### 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).

### 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).

### 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).

### 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).

### 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  3  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  3  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  3  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  3  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 includes 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).

**HORT**

**HORT 1310  3  Soil Science**

To gain an understanding of the physical and chemical properties of soil. To recognize differences in soil quality as it affects plant growth. To modify a soil by using soil amendments. An understanding of soil principles is critical to the cultural management of any horticultural crop. Soil is important as a plant growth medium which acts as a reservoir of fertility and physical support of plant roots. This course covers topics in the basic study of soils including physical, chemical, and biological properties of soils, soils formation, soil classification, soil pH and soil surveys. Soil amendments as used in horticultural crop soils will also be discussed. (Prerequisites: None).  (3 C/ 2 lect, 1 lab, 0 OJT).

**HORT 1315  3  Plant Materials - Woody Plants**

This course covers the characteristics and identification of deciduous and evergreen trees and shrubs grown in the upper Midwest. A thorough knowledge of native and commercial plant materials is vital background to any horticultural occupation. Particular attention is placed upon identification of the plant materials and the classification of these materials according to cultural and landscape use characteristics. (Prerequisites: ENGL 0840 and 0980; MATH 0093).  (3 C/1 lect, 2 lab, 0 OJT).

**HORT 1318  3  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  3  Plant Materials II - Herbaceous Plants**

Identification, description, uses, cultural requirements, adaptability and maintenance of non-woody ornamental plants with emphasis on annuals, biennial, perennials, and bulbs. (Prerequisites: ENGL 0840 and 0980; MATH 0093).  (3 C/1 lect, 2 lab, 0 OJT).
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).

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).

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).

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).

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).

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).

Greenhouse Operations and Management
Greenhouses structures are 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).

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 placed on Landscape Site Analysis and Landscape Design Fundamentals. An introduction on the use of Computer Aided Design (CAD) in landscape design will be included. (Prerequisites: ENGL 0980, MATH 0093, HORT 1315, HORT 1320). (3 C/0 lect, 4 lab, 0 OJT).
**HORT 2350  2  Intergrated Plant/Pest Management**
This course covers an introduction to identification and control of pests affecting the turf and landscape industry. A basic understanding of entomology, plant pathology, physiological, nutrition, mechanical, cultural, biological, and environmental factors affecting plants. (Prerequisites: ENGL 0980, MATH 0093). (2 C/1 lect, 2 lab, 0 OJT).

**HORT 2390  2  World Horticulture**
This course examines the Horticulture industry outside of the Midwest. An exploration of the diverse areas of the horticulture industry. (Prerequisites: ENGL 0840 and 0990; MATH 0093 and instructor approval). (2 C/1 lect, 1 lab, 0 OJT).

**HORT 2399  1  Horticultrue Seminar**
Enhance critical thinking skills through the preparation and presentation of an in-depth study relating to the horticulture industry. (Prerequisites: ENGL 0840 and 0990; MATH 0093 and completion of two full semesters or consent of instructor). (1 C/ 0 lect, 1 lab, 0 OJT).

**HS**

**HS 1511  2  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  3  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  2  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  2  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  2  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  3  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  2  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).
### 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).

### 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).

### 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).

### 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).

### 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).

### 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).

### 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).

### 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, statues, 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  3  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  3  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  3  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  3  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  1  Addiction: Crisis Intervention and Prevention
This course provides students with an overview of crisis intervention and prevention models and theories, assessment strategies, community support systems or plan of actions.  (Prerequisites: None).  (1 C).

HS 1782  3  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  3  Child and Adolescent Co-occurring Disorders
This course provides students with an overview of child and adolescent human developmental factors, mental health, and substance abuse disorders which impact the well being of self, family, and community.  (Prerequisites: ENGL 1117).  (3 C).

HS 1784  1  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).
** HTFL 1328  3  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  4  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  3  Interior Plants and Plantscaping**
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).

** HTLS 1322  4  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  1  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  3  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  4  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  3  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).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Description</th>
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<tbody>
<tr>
<td>HUC 1510</td>
<td>3</td>
<td>Introduction to Health Unit Coordinating</td>
<td>This course introduces the student to the role of a Health Unit Coordinator. A Health Unit Coordinator is a non-clinical member of the health care team and supports patient care with mainly clerical duties. Introduction to Health Unit Coordinating will focus on understanding the role within a hospital setting specifically looking at: a typical hospital organizational structure, various hospital departments and their responsibilities, and understanding the role of various medical staff; a comprehensive look at the department of nursing, a HUC’s role within the department, and methods of patient care delivery; Identification of a variety of communication devices and their uses within the electronic environment; introduction to basic index and filing rules; the HUC as a profession and NAHUC as a professional organization; A brief overview of organizations such as Joint Commission, and the CDC will also be addressed in the introduction course for Health Unit Coordinators. In preparation for participating in the HUC internship, students will complete a required HIPAA module. (Prerequisites: None.) (3 C/6 hours/week for 8 weeks).</td>
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<tr>
<td>HUC 1515</td>
<td>3</td>
<td>Station Procedures I</td>
<td>This course will focus on the purpose of the patient’s chart, identification of standard chart forms, and the Health care providers' responsibility regarding HIPAA Law and confidentiality. Time will be spent comparing the paper chart in contrast to the EMR. Students will learn to recognize, interpret, and transcribe all types of Doctors orders. Orders will include medical algorithms, protocols, order sets, free text orders, and CPOE. A comprehensive list of abbreviations used in Doctors orders and diagnostic procedures will be memorized and used appropriately throughout the course. Students will learn the importance of follow-through regarding Physician orders, which includes communication to various hospital departments and ordering supplies and equipment. (Prerequisites: Completion of or enrolled in HUC 1510 and HUC 1524). (3 C/6 hours/week for 8 weeks).</td>
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<tr>
<td>HUC 1516</td>
<td>3</td>
<td>Station Procedures II</td>
<td>This course will focus on various processes involved in the typical HUC role. These processes include completing and maintaining unit records and documentation regarding admissions, transfers, and dismissals of hospitalized patients; preoperative and postoperative procedures; recognition of available resources critical for independent problem solving; computer training unique to the health care environment; and Isolation procedures and standard precautions for infection control. Class time will also be used for internship planning and preparation. (Prerequisites: Completion of HUC 1510, HUC 1515 and HUC 1524). (3 C/6 hours/week for 8 weeks).</td>
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<tr>
<td>HUC 1519</td>
<td>3</td>
<td>Health Unit Coordinator Communications and Professional Issues</td>
<td>This course will focus on the basics of interpersonal communication skills, with an emphasis on customer service, and professional telephone techniques. Professional/ethical issues and information such as advanced directives, the patient bill of rights, the grieving process, and dealing with death and dying will be addressed as they relate to the healthcare worker. Personal/professional preparation for employment will cover topics such as co-worker interaction, personal work habits, preparing a resume, interviewing and job advancement opportunities. (Prerequisites: None). (3 C/6 hours/week for 8 weeks).</td>
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<tr>
<td>HUC 1524</td>
<td>2</td>
<td>Introduction to Medications for the Health Unit Coordinator</td>
<td>This course introduces the Health Unit Coordinator to commonly prescribed medications, pharmaceutical terms, systems of measurement, and medical abbreviations associated with medication orders and prescriptions. The HUC’s role with medications will vary between health care facilities. (Prerequisites: None). (2 C/4 hours/week for 8 weeks).</td>
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<tr>
<td>HUC 1529</td>
<td>4</td>
<td>Health Unit Coordinator Internship</td>
<td>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).</td>
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**HUC 1530 2  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. These applications will include, but not limited to PARVISION for supply management, TeleTracking systems for bed management, Surgical List Viewer for monitoring the progress and coordinating the needs of surgical patients, Introduction to CPOE and Electronic charting applications such as MICS, Synthesis, and Chart Plus; Mainframe communication applications including OCS and HealthQuest; Communication applications such as Outlook and various intranet and internet based resources crucial to the healthcare environment. (Prerequisites: Completion of HUC 1510, HUC 1524, HUC 1515, HUC 1516, HUC 1519 and concurrent enrollment in HUC 1529). (2 C).

**HUM 1001 3  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 3  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 3  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 3  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 3  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 3  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 3 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 3 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 3 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 4 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 3 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 3 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 4 Specially Designed Independent Study
Arranged study.

HVAC
HVAC 1010 1 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 4 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).
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<tr>
<th>Course Code</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HVAC 1030</td>
<td>3</td>
<td>Electronic Circuits</td>
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<td>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).</td>
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<tr>
<td>HVAC 1040</td>
<td>3</td>
<td>Schematic Reading and Troubleshooting</td>
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<td>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).</td>
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<tr>
<td>HVAC 1050</td>
<td>3</td>
<td>Introduction to Programmable Logic Controls</td>
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<td>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).</td>
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<tr>
<td>HVAC 2000</td>
<td>2</td>
<td>Refrigeration Lab</td>
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<td>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).</td>
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<tr>
<td>HVAC 2010</td>
<td>2</td>
<td>Motors and Controllers</td>
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<td>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).</td>
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<tr>
<td>HVAC 2020</td>
<td>2</td>
<td>HVAC Controls</td>
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<td>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).</td>
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<tr>
<td>HVAC 2030</td>
<td>1</td>
<td>Electrical Codes</td>
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<td>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).</td>
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<tr>
<td>HVAC 2040</td>
<td>3</td>
<td>HVAC Refrigeration Theory</td>
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<td>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).</td>
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<tr>
<td>HVAC 2050</td>
<td>4</td>
<td>HVAC Systems Theory</td>
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<td>This course covers principles of HVAC and air conditioning systems. Furnaces, boiler, air conditioners, heat pumps, economizers, heating &amp; cooling decks, and zones are identified and explained. (Prerequisites: HVAC 1030 or instructor's permission). (4 C/4 lect, 0 lab).</td>
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<tr>
<td>HVAC 2060</td>
<td>2</td>
<td>HVAC Systems Lab</td>
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<td></td>
<td>This course covers principles of HVAC and air conditioning systems. Furnaces, boiler, air conditioners, heat pumps, economizers, heating &amp; cooling decks, and zones are analyzed and operated. (Prerequisites: Enrollment in the HVAC program or instructor's permission). (2 C/0 lect, 4 lab).</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>ICP 1000</td>
<td>Introduction to Paramedicine</td>
<td>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).</td>
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<tr>
<td>ICP 1005</td>
<td>EMS Skills I</td>
<td>This course focuses on the Basic Life Support skills the paramedic must master. Mass-causality and other rescue operations are also covered. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in the Paramedic program). (1 C).</td>
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<tr>
<td>ICP 1006</td>
<td>Disease Pathophysiology</td>
<td>This course covers human disease pathology including the immune response, inflammation, and the body's defense against disease and injury. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in the Paramedic program). (2 C).</td>
</tr>
<tr>
<td>ICP 1010</td>
<td>Pharmacology</td>
<td>The intent of this course is to introduce the student to basic pharmacology concepts, principles of drug safety and basic drug categories. Legal aspects of drug administration, drug standards, reference material utilization will be emphasized and specialized medications used in ALS care. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in Paramedic program). (3 C).</td>
</tr>
<tr>
<td>ICP 1015</td>
<td>EMS Skills II</td>
<td>This course is focused on patient assessment and advanced airway management skills, including EOA placement, Endotracheal intubation. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (2 C).</td>
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<tr>
<td>ICP 1020</td>
<td>Trauma Care</td>
<td>This course deals with the many aspects of trauma including kinetics, evaluation, management and packaging. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in the Paramedic program). (3 C).</td>
</tr>
<tr>
<td>ICP 1025</td>
<td>Cardiac Care</td>
<td>The course will prepare the paramedic student to assess and manage those cardiac emergencies that result from coronary atherosclerosis, along with a number of conditions involving pathology of peripheral circulation. The interpretation of cardiac dysrhythmias receives much emphasis in this course. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (4 C).</td>
</tr>
<tr>
<td>ICP 1030</td>
<td>Pathophysiology in EMS</td>
<td>This course deals with the various medical emergencies related to breathing, endocrine disorders, nervous system disorders, allergic reactions, renal system, OB/GYN, toxic exposure, hematology, environmental emergencies, and GI system. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).</td>
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<tr>
<td>ICP 1035</td>
<td>Special Populations</td>
<td>This course covers areas such as age geriatrics, OB/GYN, neonate, pediatric, and behavioral emergencies. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (1 C).</td>
</tr>
<tr>
<td>ICP 1040</td>
<td>EMS Advanced Skills</td>
<td>This course focuses on all advanced skills utilized by the paramedic including defibrillation, IV therapy, and airway management and medication administration. ACLS and PALS courses are also included. (Prerequisites: ENGL 0840, 0940, MATH 0098 and Enrollment in Paramedic program). (2 C).</td>
</tr>
<tr>
<td>ICP 1041</td>
<td>EMS Operations</td>
<td>This course covers EMS operations associated with driving, MCI, rescue, and rural operations. (Prerequisites: ENGL 0840, ENGL 0940, MATH 0098, and enrollment in the Paramedic program). (1 C).</td>
</tr>
<tr>
<td>ICP 1045</td>
<td>Ambulance Clinical I</td>
<td>Clinical time spent in various settings of ambulance operations. Each student will administer patient care under the guidance of a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).</td>
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</table>
**ICP 1050  2  Critical Care Clinical I**  
Clinical time spent in hospital settings including Emergency Room, Operating Room, Labor and Delivery, and ICU. Students will administer patient care under supervision from a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (2 C).

**ICP 1055  3  Critical Care Clinical II**  
Clinical time spent in hospital settings including Emergency Room, Operating Room, Labor and Delivery, and ICU. Students will administer patient care under supervision from a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).

**ICP 1056  2  Critical Care Clinical III**  
(Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in the Paramedic program). (2 C).

**ICP 1060  3  Ambulance Clinical II**  
Clinical time spent in various settings of ambulance operations. Each student will administer patient care under the guidance of a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).

**ICP 1065  3  Ambulance Clinical III**  
Clinical time spent in various settings of ambulance operations. Each student will administer patient care under the guidance of a preceptor. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program). (3 C).

**ICP 1070  1  Paramedic Preparation**  
This course is designed to prepare the student for certification testing as well as preparing for the work environment. (Prerequisites: ENGL 0840, 0940, MATH 0098, and Enrollment in Paramedic program).

**LAWE**

**LAWE 1105  3  Introduction to Law Enforcement**  
Major topics of the course include the history and evolution of law enforcement, police operations and procedures, the court system, corrections and the juvenile justice system. (Prerequisites: None). (3 C/3 lect, 0 lab).

**LAWE 1107  3  Ethics in Law Enforcement**  
Police Ethics includes definitions, perceptions, concerns, and the history of police deviance with the forging of an occupation. The working environment is discussed. The ideology and culture of police and the motive and justification for breaking normative bonds are covered. Police brutality, abuse of authority, police prejudice, and discrimination are discussed. Drug-related police deviance, varieties of police deviance, internal and external controls influencing police deviance and corruption, and prospects for controlling deviance are also included. (Prerequisites: None). (3 C/3 lect, 0 lab).

**LAWE 1108  3  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  4  Introduction to Criminal Investigation**  
This course will cover preliminary investigations, investigative techniques, and the investigation of specific offenses. Discussions will include the importance of determining the offenders method of operation along with the specific elements of each criminal offense. Specific investigative techniques will be discussed along with the potential of lab applications. (Prerequisites: Enrollment in Law Enforcement or Criminal Justice program). (4 C/3 lect, 2 lab).

**LAWE 1115  2  Basic Firearms for Law Enforcement**  
This class will familiarize students with and examine students on the legal aspects on Use of Force in Law Enforcement and Firearms Usage. Topics of lecture will include the laws governing use of force, including authorized use of deadly force by police offers. Students should develop a fluid understanding of the use of force continuum. Students will then be given instruction on the use and operations of the handgun and then be taken to the range and instructed in the different methods of shooting positions until the students can complete a certified shooting course. Completion of this course is a P.O.S.T. requirement for licensure in the state of Minnesota. (Prerequisites: Enrollment in the Law Enforcement program). (2 C/1 lect, 1 lab).
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<tr>
<td>LAWE 1117</td>
<td>1</td>
<td>Introduction to Tactical Combat Shooting for Law Enforcement</td>
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<td>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).</td>
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<tr>
<td>LAWE 2110</td>
<td>2</td>
<td>Police Report Writing</td>
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<td>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).</td>
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<tr>
<td>LAWE 2117</td>
<td>3</td>
<td>Minnesota Statutes</td>
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<td>The major content of this course deals with statutes that the new peace officer would most likely deals with during the course of their first years of employment. (Prerequisites: College level reading and writing, LAWE 1105, 1112). (3 C/3 lect, 0 lab).</td>
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<tr>
<td>LAWE 2118</td>
<td>2</td>
<td>Minnesota Traffic Statutes</td>
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<td>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 Statutes. 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).</td>
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<tr>
<td>LAWE 2119</td>
<td>3</td>
<td>Minnesota Statutes and Traffic Law</td>
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<td>The major content of this course deals with Criminal statutes that the new peace officer would most likely deal with during the course of their first year of employment as well as formalization of Minnesota Traffic Code as prescribed by the Minnesota Board of Peace Officer Standards and Training. Students will learn the importance of a proper knowledge of Criminal and Traffic Statutes. Students will also learn how to take a situation and decide what charges should be filed (what laws have been broken). (Prerequisites: LAWE 1105 or CRJU 1305; ENGL 1117; LAWE 1112). (3 C).</td>
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<tr>
<td>LAWE 2120</td>
<td>2</td>
<td>Human Behavior for Law Enforcement</td>
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<td>The major focus of this course deals with the types of reactions peace officers may encounter with people who are experiencing emotional or psychological difficulties. (Prerequisites: College level reading and writing, LAWE 1105, 1112, PSYC 1611, and Enrollment in the Law Enforcement program; PSYC 1611). (2 C/2 lect, 0 lab).</td>
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<tr>
<td>LAWE 2121</td>
<td>3</td>
<td>Human Behavior and Ethics in Law Enforcement</td>
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<td>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; LAWE 1112). (3 C/3 lect, 0 lab).</td>
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<td>LAWE 2122</td>
<td>3</td>
<td>Criminal Procedure</td>
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<td>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; LAWE 1112). (3 C).</td>
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<tr>
<td>LAWE 2125</td>
<td>1</td>
<td>Community Policing and Service</td>
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<td>Major topics of the course will include police administration, various police duties and responsibilities, police statistics and research, and police work involving community service. (Prerequisites: College level reading and writing, LAWE 1105, 1112, and Enrollment in the Law Enforcement program; completion of general education requirements for the program). (1 C/1 lect, 0 lab).</td>
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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; LAWE 1112). (3 C/3 lect, 0 lab).

Practical Exercises for Law Enforcement

The course is designed to give students the ability and confidence to cope with physical situations, which may confront peace officers; to eliminate excessive use of force by officers; and allow officers to appropriately react to situations with a swift, efficient, and appropriate solution whether physical or verbal. Students will also learn about the different types of police patrol and response to calls along with the safe and proper operation of their patrol vehicle. They will then take the learned concepts and demonstrate their abilities on the I-SIM driving and PRISim use-of-force simulators. (Prerequisites: LAWE 1105, 1112, College level reading and writing). (3 C/0 lect, 0 lab).

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).

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).

Internship for Law Enforcement

This course offers students the opportunity to interact with current law enforcement agencies. Students will be given the opportunity to ride along with both large and smaller agencies in Southeast Minnesota. (Prerequisites: LAWE 1105; LAWE 1112). (2 C/0 lect, 2 lab).

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).

Crime Scene Processing

This course covers a study of responsibilities and duties of officers conducting a preliminary investigation of a crime scene. Topics include recognition, preservation, and recovery of physical evidence, crime scene photography, sketching and recovery of latent fingerprints. This course focuses on lab activities allowing students to develop skills relative to crime scene processing and evidence collection and presentation. Completion Requirements: A minimum of a C grade will be required to pass this course. (Prerequisites: Sophomore in Law Enforcement program, Law Enforcement Certificate student or approval by another Minnesota Professional Peace Officer Education Program Coordinator; completion of psychological exam and completion of a physical exam. Co-Requisites: Completion or concurrent enrollment in LAWE 2110, LAWE 2119, LAWE 2122, LAWE 2140, EMC 1121). (2 C/1 lect, 1 lab).
LAWS 2102  2  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  2  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. (Prerequisites: Sophomore in Law Enforcement Program, Law Enforcement Certificate student, or approval by another Minnesota Professional Peace Officer Education Program Coordinator; completion of a psychological exam; completion of a physical exam; and ability to pass the RCTC physical agility test. Completed or concurrently taking. 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 2104  2  Firearms for SKILLS
This course covers the use of deadly force, firearms safety, care and cleaning of service weapons, and firearms shooting principles. The course focuses on student's decision-making ability and firearms shooting ability. Students will shoot handguns, shotguns and rifles with a variety of different types of ammunition. (Prerequisites: Sophomore in Law Enforcement program, Law Enforcement Certificate student or approval by another Minnesota Professional Peace Officer Education Program Coordinator; completion of a psychological exam; completion 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).

LAWS 2105  2  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 LAWS). (2 C, 0 lect, 2 lab).

LCOM 1001  5  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  8  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.
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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.

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).

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).

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).

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).
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 3 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 1 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 1 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 3 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 3 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 4 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.
A problem-solving based Liberal Arts course for the student who wishes to acquire a broad background in mathematics. These topics will be covered: Geometry, Logic, Finance Mathematics, Probability, and Statistics. Other topics may be selected from the following list: Numeration Systems, Trigonometry, Voting Methods, Apportionment, Graph Theory, Sets, Discrete Mathematics, Number Theory, Game Theory, and GIS. (Prerequisites: Successful completion of MATH 0098 (or equivalent) with a grade of C or better or appropriate score on RCTC placement test; and college level reading). (3 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical 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).

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.

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 or 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 placement test. College level reading). (3 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

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.

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 test; College level reading). (3 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

This mathematics course is a first semester calculus course including topics: limits, continuity, differentiability, applications of differentiation including related rates, optimization, linear approximation and Newton’s method, function sketching, integration with applications including area, volumes of rotation, and work, introduction to the calculus of inverse functions including exponential, logarithmic, and trigonometric functions. (Prerequisites: 4 years of high school mathematics including trigonometric functions with a grade of "B" or higher or MATH 1117 and/or appropriate placement score from the current RCTC placement test; College level reading). (5 C). MNTC: Goal 2/Critical Thinking, Goal 4/Mathematics/Logical Reasoning.

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 4 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 4 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 5 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 5 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 2239 4 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).

MCOM 1090 3 TV Production Experience
This course covers some basics of Television history and production. This course articulates for students who have
completed TV Production courses at high schools. (Prerequisites: None). (3 C/3 lect, 0 lab).

MCOM 1106 3 American Cinema
This course surveys Hollywood filmmaking as an art form, economic force, and as a system of cultural
communication. Stylistic elements are examined from the perspective of various genres and time periods. Students
will learn the language of American cinema; increase their understanding of how films work as art and how films
convey meaning as cultural artifacts. Students will also learn analysis skills to become more active and critical
viewers. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal
6/Humanities - the Arts, Literature and Philosophy, Goal 7/Human Diversity.

MCOM 1110 3 Introduction to Mass Communication
This course will cover the nature, function and responsibilities of mass media. Areas covered include media literacy,
propaganda, newspapers, magazines, radio, music recording, book publishing, advertising, films, public relations,
freedom of speech/press, politics and media ethics. Pro- and anti-social effects of media consumption will also be
examined. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal
5/History and Social and Behavioral Sciences, Goal 9/Ethnic and Civic Responsibility.

MCOM 1122 3 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 3 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).
### 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).

### 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).

### 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).

### 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).

### 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).

### 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.

### 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).

### 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).

### New Media Layout and Design

This course will introduce critical concepts and build student competence in design related to new media. These new medias 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).

### 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).
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MCOM 2240</td>
<td>3</td>
<td>TV Production II</td>
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<tr>
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<td>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).</td>
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<tr>
<td>MCOM 2261</td>
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<td>Publications Laboratory II (Newspaper)</td>
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<td>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).</td>
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<td>MCOM 2290</td>
<td>3</td>
<td>Mass Communications Law/Ethics</td>
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<td>This course covers origins and background principles of Mass Communications Law. Case law, statues, agency regulations that comprise precedents for laws that govern media professionals is included as well as social and ethical professional issues calling for critical judgment. (Prerequisites: College-level reading and writing). (3 C/3 lect, 0 lab).</td>
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<td>MCOM 2294</td>
<td>4</td>
<td>Mass Communications Internship</td>
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<td>On-the-job experience in mass communications. (Prerequisites: Sophomore standing and permission of instructor/department). (4 C).</td>
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<td>MCOM 2295</td>
<td>2</td>
<td>Media Production Capstone</td>
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<td>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. (Prequisites: College level reading and writing). (2 C).</td>
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<td>MUSC 1001</td>
<td>3</td>
<td>Music Fundamentals</td>
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<td>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.</td>
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<tr>
<td>MUSC 1002</td>
<td>3</td>
<td>Music, Video, Lights</td>
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<td>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.</td>
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<tr>
<td>MUSC 1003</td>
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<td>Music, Video, Lights II</td>
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<td>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).</td>
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<td>MUSC 1005</td>
<td>3</td>
<td>Music Production</td>
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<td>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).</td>
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<td>MUSC 1101</td>
<td>3</td>
<td>Music Appreciation</td>
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<td>MUSC 1201</td>
<td>3</td>
<td>History of Music to 1600</td>
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<td>MUSC 1202</td>
<td>3</td>
<td>History of Music Since 1600</td>
</tr>
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<td>MUSC 1221</td>
<td>3</td>
<td>Popular Music in the United States</td>
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<tr>
<td>MUSC 1231</td>
<td>3</td>
<td>Introduction to World Music</td>
</tr>
<tr>
<td>MUSC 1241</td>
<td>3</td>
<td>Movies and Composers</td>
</tr>
<tr>
<td>MUSC 1301</td>
<td>1</td>
<td>Concert Choir</td>
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<tr>
<td>MUSC 1302</td>
<td>1</td>
<td>Concert Band</td>
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<td>MUSC 1321</td>
<td>1</td>
<td>Aires</td>
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<tr>
<td>MUSC 1322</td>
<td>1</td>
<td>Jazz Band</td>
</tr>
<tr>
<td>MUSC 1331</td>
<td>1</td>
<td>Vocal Ensemble</td>
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<td>Course Code</td>
<td>Credits</td>
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<td>MUSC 1332</td>
<td>2</td>
<td>Instrumental Ensemble</td>
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<td>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.</td>
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<td>MUSC 1340</td>
<td>1</td>
<td>World Drum Ensemble</td>
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<td>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.</td>
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<tr>
<td>MUSC 1350</td>
<td>1</td>
<td>Marching Percussion Ensemble</td>
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<td>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).</td>
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<td>MUSC 1401</td>
<td>3</td>
<td>Beginning Class Piano</td>
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<td>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 CGDFAE; 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.</td>
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<tr>
<td>MUSC 1402</td>
<td>2</td>
<td>Intermediate Class Piano</td>
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<td>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, Bb, 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).</td>
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<td>MUSC 1421</td>
<td>3</td>
<td>Beginning Class Voice</td>
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<td>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.</td>
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<tr>
<td>MUSC 1422</td>
<td>2</td>
<td>Intermediate Class Voice</td>
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<td>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.</td>
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<tr>
<td>MUSC 1431</td>
<td>3</td>
<td>Beginning Class Guitar</td>
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<td>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.</td>
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MUSC 1440  1  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  1  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  1  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  1  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  1  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  1  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  4  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  4  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  3  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  2  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  3  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  3  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  2  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 2450  1  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  4  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  4  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  1  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).
NA 1500 4 Nursing Assistant Theory and Clinical
This course introduces the concepts of basic needs and basic nursing skills in the long term care environment. Skills are taught in a simulated laboratory setting utilizing demonstration of skills and guided practice. Performance mastery of skills is emphasized. The student must successfully complete the theory portion of this class to participate in the clinical component. This course meets the Federal OBRA law and Minnesota Department of Health requirements for educating the Nursing Assistant. Upon completion of this class, the student will be eligible to complete the State Nursing Assistant Registry. This course is a Technology, Practical Nursing, and Associate Degree Nursing. (Prerequisites: Qualified for college level reading or concurrent enrollment in READ 0900). (4 C/2 lect, 1 lab, 1 clinical).

NA 1501 1 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 2 Hospital Nursing Assistant
This course will give the student who has completed a 80-hour Nursing Assistant program the knowledge and skills necessary for employment in a hospital or other acute care setting. The student will be provided with classroom and laboratory experience which will aid in preparation to care for the acutely or chronically ill patient. Actual experience in the hospital setting will be provided during clinical. (Prerequisites: NA 1500 or equivalent, completion of or concurrent enrollment in BTEC 1610, ENGL 1117, PSYC 1611). (2 C).

NA 1610 5 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 development course (READ 0800) with a grade of C or better. CPR or concurrent enrollment in CPR).

NURS
NURS 1117 6 Fundamentals of Nursing
This course is designed to provide an overview of the nursing profession and the role of the registered nurse as a provider and manager of care. Maslow's hierarchy of basic human needs, Watson's Philosophy of Caring, and Benner's Novice to Expert Theory are introduced along with the nursing process. Nursing care of patients with musculoskeletal alterations and care of the elderly is discussed. Operative stages of nursing care are discussed. (Prerequisites: Admission into the nursing program and follow the ADN program sequence). (6 C/3 hrs classroom and 7.5 hours lab).

NURS 1118 6 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: NURS 1117). (6 C/3 hours classroom, 7.5 hours lab).

NURS 1130 2 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).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>NURS 2207</td>
<td>3</td>
<td>Maternal Newborn Nursing</td>
<td>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 lecture (3.2 contact hours) and 1.4 credit lab (8.4 contact hours). Course delivered in 1/2 semester).</td>
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<tr>
<td>NURS 2208</td>
<td>3</td>
<td>Mental Health Nursing</td>
<td>This course is designed to assist students in developing a comprehensive knowledge of the nursing care of the psychiatric-mental health patient. Students will focus on increasing awareness of the continuum of human behavior and utilization of therapeutic communication. Emphasis is placed on patient education, caring behaviors and prioritization of needs. (Prerequisites: Satisfactory completion of Semester II requirements as identified in the ADN program sequence). (3 C/1.6 credit lecture (3.2 contact hours) and 1.4 credit lab (8.4 contact hours). Course delivered in 1/2 semester).</td>
</tr>
<tr>
<td>NURS 2209</td>
<td>3</td>
<td>Pediatric Nursing</td>
<td>This course is designed to help the student develop a comprehensive knowledge of the growth and development of all children. Pediatrics includes care of the well child and children with disabilities with emphasis on assessing the effects of illness and/or hospitalization on growth and development of the child and family. The concept throughout this course is that child and family health or disability relates to growth and development from infancy through adolescence. The course prepares the student to provide care to children with both acute and chronic illness, communicable diseases, and congenital birth defects. Clinical experience is designed for application of theory to patient care. (Prerequisites: Satisfactory completion of semester III requirements as identified in the ADN program sequence). (3 C/1.6 credit lecture (3.2 contact hours) and 1.4 credit lab (8.4 contact hours). Course delivered in one-half semester).</td>
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<tr>
<td>NURS 2217</td>
<td>6</td>
<td>Adult Nursing II</td>
<td>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: Completion of NURS 1117, NURS 1118. Previous or concurrent registration in SOC 1614. Concurrent registration in NURS 2207 and NURS 2208. A grade of C is required). (6 C/2.3 hours lecture and 9.75 hours lab).</td>
</tr>
<tr>
<td>NURS 2218</td>
<td>3</td>
<td>Advanced Concepts in Nursing</td>
<td>This course provides an overview of the nursing care for critically ill patients. Principles of nursing management of patients with endocrine disorders, multisystem organ dysfunction, and common emergencies including trauma and burns are examined. Organ donation/transplant issues and nursing implications are discussed. Ethical considerations and priority nursing interventions discussed. Each student has one acute care clinical laboratory period a week. Students will have an opportunity to observe in a critical care and/or emergency care setting to correlate RN roles and health team collaboration in meeting priority patient health needs. (Prerequisites: Successful completion of Semester III requirements as identified in the ADN program course sequence). (3 C/1.6 credit lecture (3.2 contact hours) and 1.4 credit lab (8.4 contact hours). Course delivered in half semester).</td>
</tr>
<tr>
<td>NURS 2219</td>
<td>4</td>
<td>Leadership and Management in Nursing</td>
<td>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 and course sequence). (4 C/1 credit lecture (2 contact hours) and 3 credits lab (18 contact hours). Course delivered in half semester).</td>
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**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).

**Principles of Nutrition**

This course covers the composition of, the sources of, and the human requirements of carbohydrates, lipids, proteins, vitamins and minerals in the diet throughout the life-cycle. Metabolism of nutrients, energy balance and fluid and electrolyte balance will also be discussed. (Prerequisites: BIOL 1217 or BIOL 1220, one college chemistry course above CHEM 1101). (3 C).

**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).

**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).

**Work Readiness Assessment**

This course provides students the opportunity to explore occupational options. Students will identify their occupational strengths and weaknesses. They will also set, monitor and change goals, as necessary. Students will plan their program of study which will be expanded upon in the Supervised Occupational Training course. (Prequisites: Acceptance into the Occupational Skills program). (1 C/1 lect, 0 lab).

**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).

**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).

**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).

**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).
**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).

**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).

**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).

**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).

**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).

**Social Dance**

This course provides the opportunity to develop physical skills in the performance of a number of social/ballroom dances as well as an appreciation for the art and skill of social dance. The dances will include the fox-trot, waltz, lindy, cha-cha, and two-step, as well as several contemporary line dances. (Prerequisites: ENGL 0840). (1 C).

**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).

**Soccer**

This course is intended to introduce the student to the basic and intermediate aspects of soccer. Through instruction, demonstration, practice and play the student will learn the skills, rules, and strategies involved in the game of soccer. It will also cover some of the basic aspects of conditioning, fitness and the benefits of exercise. Time will be spent working in groups and developing teamwork. (Prerequisites: ENGL 0840). (1 C).

**Cycling (Non-Motorized)**

The student will learn the basic rules of operation of the bicycle, rules of the road, and how to properly care for equipment. It is expected that the student will realize the value of cycling in achieving physical fitness and will be encouraged to have a carry-over interest in cycling. (Prerequisites: ENGL 0990, College level reading). (1 C).
PHED 1110 1 Bowling  
This course is intended to teach students how to bowl using the spot bowl system. Students will learn how to keep score and select appropriate equipment. (Prerequisites: MATH 0093 and READ 0840). (1 C).

PHED 1111 1 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 1 Jogging/Walking  
This course is designed to introduce the student to various aspects of jogging and walking activities. Topics to be covered include but are not limited to stretching, form, fitness principles, and proper equipment needed for jogging and fitness walking. The course will help students to develop lifelong fitness programs by developing and understanding aerobic principles, cardiovascular conditioning, nutrition and performance enhancement. (Prerequisites: ENGL 0990, ENGL 0840, and MATH 0093). (1 C).

PHED 1113 1 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 1 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 1 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 1 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 1 Circuit Training  
This course is designed to teach students techniques in weight training, in both free weights and machines, and cardiovascular endurance activities. The student will also be exposed to basic anatomy/physiology principles regarding warm-up, stretching and body musculature. (Prerequisites: ENGL 0090, 0840, and MATH 0093). (1 C).

PHED 1124 1 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 1 Yoga For Life  
Yoga is a discipline associated with physical, emotional, and spiritual benefits. The focus of the class will be on Hatha Yoga, which is that branch of Yoga that works primarily with the body through asanas or postures that are done seated, standing, and lying supine on the floor. Breathing exercises, relaxation in the postures, and meditation will also be highly emphasized. Yoga postures enhance flexibility, balance, and strength, while focusing on mind/body awareness. (Prerequisites: None). (1 C).
### PHED 1126 1  Step Aerobics
An aerobic exercise class that uses a 4" - 10" step bench. Each class will include a warm-up, a step segment, muscle toning and a cool-down. (Prerequisites: ENGL 0990, 0840, and MATH 0093). (1 C).

### PHED 1127 1  Body Toning
An exercise program designed to increase your muscle tone, strength and flexibility, using a variety of progressive resistance techniques like Dyna bands, hand weights, exercise bars and balls. (Prerequisites: ENGL 0990, College level reading, and MATH 0093). (1 C).

### PHED 1130 1  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 1  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 1  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 1  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 1  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 1  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 1  Self-Defense
This course is designed to provide the student with a variety of practical skills necessary to escape a physical attack. Special tactics such as throws, kicks, falls, submission holds and counter moves are taught. Students are taught how to get away from potentially dangerous situations safely. (Prerequisites: ENGL 0840). (1 C).

### PHED 1144 1  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 1  Individual Leisure Sports
Individual Leisure Sports is designed for students to develop skills relating to sports that are more family, social or designed for recreational competition. These sports: table tennis, horseshoes, disc golf, badminton, pickleball and bocce ball are competitive, yet are activities that will provide opportunities for students to learn now, develop through practice and participation, yet continue to be involved with throughout their lifetime. (Prerequisites: College level reading). (1 C).
### Team Recreational Sports

Recreational Team Sports is designed for students to develop skills relating to sports that are more family, social or designed for recreational competition. These sports; team handball, floor hockey, ultimate Frisbee, soccer, flag football and kickball can be performed as family activities or in a competitive amateur setting. This course is designed to expose students to opportunities for learning through practice and participation, to develop team sport skills, continue to be active physically and enjoy the social aspects of team sports throughout their lifetime. (Prequisites: College level reading). (1 C).

### 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).

### 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).

### Boot Camp

This course is designed for Law Enforcement students who need additional assistance in performing to the physical standards set by their field. Students taking this course will have been directed to this structured physical training format to enable them to both reach their desired goal of passing the physical training portion of their skills, as well as to gain a comprehensive understanding of the complexities that diet, healthy lifestyle choices and continued daily physical training contribute toward maintaining optimal fitness levels throughout their career. Any RCTC student may enroll in this course with instructor permission. (Prerequisites: None). (1 C).

### 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).

### 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).

### 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).
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<tr>
<th>Course Code</th>
<th>Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>PHED 1193</td>
<td></td>
<td>Strength, Agility and Quickness Training for Wrestling Athletes&lt;br&gt;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).</td>
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<tr>
<td>PHED 1194</td>
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<td>Strength, Agility and Quickness Training for Baseball and Softball Athletes&lt;br&gt;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).</td>
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<tr>
<td>PHED 1210</td>
<td></td>
<td>Freshman Volleyball Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 1212</td>
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<td>Freshman Soccer Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 1213</td>
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<td>Freshman Football Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 1220</td>
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<td>Freshman Mens Basketball Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 1221</td>
<td></td>
<td>Freshman Womens Basketball Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 1222</td>
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<td>Freshman Wrestling Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 1230</td>
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<td>Freshman Baseball Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 1231</td>
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<td>Freshman Softball Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 1236</td>
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<td>Freshman Golf Team&lt;br&gt;All courses are one credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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<td>PHED 2180</td>
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<td>Critical Analysis of Football&lt;br&gt;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).</td>
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<tr>
<td>PHED 2210</td>
<td></td>
<td>Sophomore Volleyball Team&lt;br&gt;All courses are 1 credit. Participation is limited to varsity athletes. Daily practice and attendance at scheduled events are required. (Prerequisites: None). (1 C).</td>
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PHED 2212  1  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  1  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  1  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  1  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  1  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  1  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  1  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  1  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  3  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  3  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  3  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).
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 3 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 3 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 3 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 3 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 1 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 3 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 2 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 3 Principles of Coaching
This course will allow for the exploration of different coaching philosophies, the development of individual personal style while exploring caching responsibilities, ethical obligations, and how to balance personal time with coaching duties. Coaching requires the ability to appropriately interact with many individuals, ranging from athletes and parents to officials and professional peers; this course will explore appropriate interpersonal communications, as well as game management, proper analysis of statistics, how to recognize ergogenic aid usage by athletes and the application of proper collegiate recruiting processes. (Prerequisites: Physical Education major, Sport Management major, Coaching Diploma major, Recreation major or consent of instructor, and college level reading). (3 C).

PHED 2272 1 Techniques of Coaching Football
This course is designed to expose students to different approaches and strategies of coaching. It will teach prospective coaches the tactical skills to effectively break down complex sport movement into teachable basic fundamentals. Other areas that will be covered include how to effectively teach, evaluate and prepare athletes in all aspects of competition; how to plan and execute practices, as well as, season goals and plans and how to develop the prospective coach's own style and methods. (Prerequisites: PHED 2271, PHED 2261, and College Level Reading). (1 C).

PHED 2273 1 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 1 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 1 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 1 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 1 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).
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHED 2278</td>
<td>1</td>
<td>Techniques of Coaching Wrestling</td>
<td>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).</td>
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<tr>
<td>PHED 2280</td>
<td>3</td>
<td>Introduction to Sport Facility Management</td>
<td>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).</td>
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<tr>
<td>PHED 2281</td>
<td>3</td>
<td>Development and Management of Sport/Recreation Facilities</td>
<td>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).</td>
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<td>PHED 2292</td>
<td>2</td>
<td>Group Fitness Instructor Internship</td>
<td>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).</td>
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<tr>
<td>PHED 2293</td>
<td>3</td>
<td>Personal Trainer/Group Fitness Instructor Field Experience</td>
<td>This course is designed to allow for students to complete a variety of field observations/job shadowing in the areas of the Personal Training &amp; 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).</td>
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<tr>
<td>PHED 2294</td>
<td>3</td>
<td>Physical Education Internship</td>
<td>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).</td>
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<tr>
<td>PHED 2295</td>
<td>3</td>
<td>Sport Administration Internship I</td>
<td>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).</td>
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<tr>
<td>PHED 2296</td>
<td>3</td>
<td>Sport Administration Internship II</td>
<td>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).</td>
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PHED 2297  1  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).

PHIL 1114  3  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  3  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  3  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  3  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  3  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  3  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  3  Philosophy of Religion
This course will examine the most fundamental questions and concepts of religion across a variety of religious and cultural traditions. We will critically examine the nature of religion, attempts to prove God's existence, views of ultimate reality, permanence and impermanence, religious experience, truth claims of competing religions, and the meaning of religious language. Readings will be selected from classical and contemporary philosophy of religion at the discretion of the instructor. (Prerequisites: College level reading and writing as determined by assessment test or passage of ENGL 1117). (3 C). MNTC: Goal 2/Critical Thinking, Goal 6/Humanities - the Arts, Literature and Philosophy, Goal 8/Global Perspectives.

PHIL 2001  3  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  3  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.

PHYS 1101  3  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  3  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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHYS 1117</td>
<td>5</td>
<td>Introductory Physics I</td>
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<tr>
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<td></td>
<td>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.</td>
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<tr>
<td>PHYS 1118</td>
<td>5</td>
<td>Introductory Physics II</td>
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<td>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.</td>
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<tr>
<td>PHYS 1127</td>
<td>5</td>
<td>Classical Physics I</td>
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<td>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.</td>
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<tr>
<td>PHYS 1128</td>
<td>5</td>
<td>Classical Physics II</td>
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<td>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).</td>
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<tr>
<td>PHYS 1134</td>
<td>3</td>
<td>Stellar Astronomy</td>
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<td>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.</td>
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<tr>
<td>PHYS 2227</td>
<td>3</td>
<td>Modern Physics</td>
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<td>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).</td>
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<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>PL 1102</td>
<td>Self Esteem</td>
<td>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).</td>
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<tr>
<td>PL 1104</td>
<td>Stress Management</td>
<td>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).</td>
</tr>
<tr>
<td>PMT 1095</td>
<td>Blue Print Reading</td>
<td>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).</td>
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<tr>
<td>PMT 1105</td>
<td>Shop Safety, Manual Mill and Lathe Theory</td>
<td>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).</td>
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<tr>
<td>PMT 1115</td>
<td>Measuring, Inspection and Tool Setup</td>
<td>This class introduces the basic measuring devices used in the shop to ensure part quality, inspection of parts and tool setup. Emphasis will also be placed on using measuring devises and the safe handling of the equipment. (Co-requisites: PMT 1105, 1255, 1300). (1 C/1 lect, 0 lab).</td>
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<tr>
<td>PMT 1155</td>
<td>Manual Lathe Theory</td>
<td>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).</td>
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<tr>
<td>PMT 1205</td>
<td>Basics of Computer Numerical Controlled Turning</td>
<td>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).</td>
</tr>
<tr>
<td>PMT 1255</td>
<td>Basics of CNC Machining and Turning</td>
<td>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).</td>
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<tr>
<td>PMT 1300</td>
<td>Open Manufacturing Lab I</td>
<td>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).</td>
</tr>
<tr>
<td>PMT 1705</td>
<td>CNC Coordinates and Offsets</td>
<td>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).</td>
</tr>
<tr>
<td>PMT 1755</td>
<td>Computer Numerical Controlled Operations</td>
<td>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).</td>
</tr>
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</table>
**PMT 1805 1 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 1 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 1 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 6 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 2 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).

**PNM**

**PNM 1200 3 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 1 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 7 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  6  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. (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  6  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  4  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).

### POLS

#### POLS 1615  3  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  3  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  3  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.
### Introduction to Political Science

- **Course Code:** POLS 1630
- **Credit Hours:** 3
- **Description:** This course introduces students to the dynamics of politics. It 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.

### Positive Life Skills

- **Course Code:** PSYC 1600
- **Credit Hours:** 3
- **Description:** 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.

### Psychology of Adjustment

- **Course Code:** PSYC 1611
- **Credit Hours:** 3
- **Description:** 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.

### Evolution and Human Behavior

- **Course Code:** PSYC 1650
- **Credit Hours:** 3
- **Description:** 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.

### Health Psychology

- **Course Code:** PSYC 1660
- **Credit Hours:** 3
- **Description:** 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.

### Specially Designed Independent Study

- **Course Code:** PSYC 2291
- **Credit Hours:** 3
- **Description:** Specially Designed Independent Study: Theories of Personality

### Social Psychology

- **Course Code:** PSYC 2611
- **Credit Hours:** 3
- **Description:** 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).

### General Psychology

- **Course Code:** PSYC 2618
- **Credit Hours:** 4
- **Description:** 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.

### Introduction to Cultural Psychology

- **Course Code:** PSYC 2620
- **Credit Hours:** 3
- **Description:** 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.
### 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.

### 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.

### 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).

### 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).

### 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).

### 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).

### 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).

### 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).

### 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).

### 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).
SCIE 1100  3  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  3  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.

SMGT 1115  3  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  3  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  2  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  3  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  2  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  4  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  3  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  3  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  3  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  2  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  2  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  2  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).
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Course Description</th>
<th>Entry Skills/Knowledge Required</th>
<th>Prerequisites</th>
<th>Credit Units</th>
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<tbody>
<tr>
<td>SMGT 1305</td>
<td>2</td>
<td>Employment Law and Safety Compliance</td>
<td>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).</td>
<td>Reading and writing at the college level is encouraged.</td>
<td>None</td>
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<tr>
<td>SMGT 1315</td>
<td>2</td>
<td>Employee Selection and Retention</td>
<td>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).</td>
<td>Reading and writing at the college level is encouraged.</td>
<td>None</td>
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<tr>
<td>SMGT 1325</td>
<td>2</td>
<td>Performance Management and Coaching</td>
<td>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).</td>
<td>Reading and writing at the college level is encouraged.</td>
<td>None</td>
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<tr>
<td>SMGT 1327</td>
<td>3</td>
<td>Managing Employee Performance and Conflict</td>
<td>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).</td>
<td>Reading and writing at the college level is encouraged.</td>
<td>None</td>
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<tr>
<td>SMGT 1335</td>
<td>2</td>
<td>Managing in Today's Workforce</td>
<td>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).</td>
<td>Reading and writing at the college level is encouraged.</td>
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<tr>
<td>SMGT 1350</td>
<td>2</td>
<td>Employee Training and Development</td>
<td>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).</td>
<td>Reading and writing at the college level is encouraged.</td>
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<tr>
<td>SMGT 1352</td>
<td>4</td>
<td>Employee Recruiting, Retention and Employee Development</td>
<td>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).</td>
<td>Reading and writing at the college level is encouraged.</td>
<td>None</td>
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<tr>
<td>SMGT 1399</td>
<td>2</td>
<td>Human Resource Development Field Study</td>
<td>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).</td>
<td>Reading and writing at the college level is encouraged.</td>
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<td>Course Code</td>
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<td>SMGT 1400</td>
<td>1</td>
<td>Portfolio Development</td>
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<td>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).</td>
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<tr>
<td>SMGT 1420</td>
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<td>Documentation and Written Communication</td>
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<td>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).</td>
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<tr>
<td>SOC 1612</td>
<td>3</td>
<td>Sex and Gender in Society</td>
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<td>An introduction to both the biological and cultural aspects of human sexuality and gender in society. Lectures, readings, discussions, and films on sexual behavior, sexual development, conception and contraception, sexual dysfunction, deviation, variation, socialization, cultural influences and attitudes. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.</td>
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<tr>
<td>SOC 1614</td>
<td>3</td>
<td>Introduction to Sociology</td>
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<td>An introduction to the process of applying a sociological perspective to understanding the social world including patterns of behavior and interaction, culture, socialization, social structure, groups and organizations, social stratification, institutions and social change. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.</td>
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<td>SOC 1616</td>
<td>3</td>
<td>Social Problems</td>
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<td>A sociological analysis of the nature, causes and possible responses to a variety of contemporary and future American and global social problems including problems associated with individual and group deviance, inequality and exploitation, social change, institutional dysfunction and international and global conflict. (Prerequisites: College level reading and writing). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 9/Ethnic and Civic Responsibility.</td>
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<tr>
<td>SOC 1618</td>
<td>3</td>
<td>Environmental Sociology</td>
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<td>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). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 10/People and the Environment.</td>
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<tr>
<td>SOC 2612</td>
<td>3</td>
<td>Marriage and the Family Across the Life Span</td>
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<td>Sociological analysis of historical and contemporary patterns and trends in family life over the family span including investigations of dating, spouse selection, marriage, marital adjustment, parenting, aging, death and dying, divorce and remarriage, and family dysfunction. (Prerequisites: College level reading and writing; SOC 1614 or SOC 1914). (3 C/3 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 5/History and the Social and Behavioral Sciences, Goal 7/Human Diversity.</td>
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<tr>
<td>SOC 2614</td>
<td>3</td>
<td>Medical Sociology</td>
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<td>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).</td>
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<tr>
<td>SOC 2618</td>
<td>3</td>
<td>Social Interaction</td>
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<td>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.</td>
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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.

SOMA
SOMA 1101 4 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 and Goal/8 Global Perspectives.

SOMA 1102 4 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.

SPAN
SPAN 1001 3 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 4 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 4 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  2  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  4  Intermediate Spanish I**
The Intermediate Spanish series reviews the fundamentals of the Spanish language, including additional and more
advanced material in listening comprehension, speaking, idiomatic usage of vocabulary, grammar and writing
exercises and awareness of cultural differences, appropriateness and sensitivity. It develops oral proficiency in real
life contexts that will give the students a deeper understanding of Hispanic/Latino cultures. (Prerequisites: SPAN 1102
or three years of high school with a grade of A or B and/or instructor's permission). (4 C/4 lect, 0 lab). MNTC: Goal
2/Critical Thinking, Goal 8/Global Perspectives.

**SPAN 2102  4  Intermediate Spanish II**
This course provides a comprehensive review of grammatical forms through listening, speaking, reading and writing.
These skills are attained through conversational practice and are enhanced with a concurrent study of the civilization,
culture, literature, and art of the Hispanic people. The student will gain a deep understanding of the language and its
people and will be able to establish the differences between the Spanish and English speaking countries which impact
international relations. (Prerequisites: SPAN 2101 or four years of high school Spanish with a grade of A or B and/or
instructor's permission). (4 C/4 lect, 0 lab). MNTC: Goal 2/Critical Thinking, Goal 8/Global Perspectives.

**SPAN 2111  2  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).

**ST 2110  3  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  5  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  5  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  3  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  9  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  9  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 circulating duties are practiced. (Prerequisites: ST
2110, 2120, 2121, 2122. Co-requisites: ST 2123). (9 C/2 lect, 7 lab).
STSK 1670  2  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  1  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).

THTR 1121  3  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  3  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  3  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  3  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).

VT 1010  3  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  3  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).
Small Animal Nursing Techniques I
This course will introduce concepts of hospital animal care and record maintenance. Techniques emphasized will include history taking, initial physical examination, bathing, grooming, nail trimming, dermatological examination, application of topical medications, animal restraint, preventive medicine and proper collection of urine and feces. This course focuses on handling and restraint as well as basic administration of medication skills. (Prerequisites: Grade of C or better in all required previous VT courses and required general education classes). (3 C).

Veterinary Surgical Nursing and Anesthesia
This course is designed to give students a foundation in the principles of routine veterinary surgical assisting. Emphasis will include instrumentation, aseptic technique, surgical support equipment, proficiency in the proper preparation of the operating room and general nursing care. The course will also cover basic anesthetic principles and monitoring. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (2 C).

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).

Fundamentals of Diagnostic Imaging
This is a lecture and laboratory course introducing the practical and theoretical aspects of diagnostic imaging in veterinary medicine. Topic areas may include: basic principles of x-ray physics, radiation safety, radiographic equipment and accessories, processing radiographs, identification and storage of radiographic film, patient processing, and legal requirements. (Prerequisites: Grade of C or better in VT 1220, 1410, 1510, 1710, 1900, 2020, and 2910). (3 C/1 lect, 2 lab).

Introduction to Veterinary Technology Field Experience
Students participate as a Veterinary Staff member in a part-time, four-six week off-campus learning experiences in business, industry, and/or the public sector. The student is involved in the day-to-day work of the facility, including restraint and handling of animals, office procedures, clinical laboratory techniques, and surgery preparation. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (2 C).

Parasitology
This course will introduce the student to the clinical laboratory, microscopes and other equipment, and basic laboratory procedures will be emphasized. Fecal identification techniques, life cycles, nomenclature, modes of transmission, geographical distribution and diseases associated with external parasites of small animals, horses and cattle will be discussed. Internal parasites of domestic animals will be taught and identified in this course. (Prerequisites: Grade of C or better in all required previous VT courses and required general education classes). (2 C).

Small Animal Care and Management
This course will introduce concepts of animal care and kennel management. This course focuses on handling and restraint, safety, regulations and equipment of animal facilities, basic behavior concepts, and kennel management of domestic animals. The course aims to distinguish normal small animal behavior and animal husbandry. Incorporation of hands on animal care duties and teamwork will be performed into this course. (Prerequisites: Grade of C or better in all previous required VT coursework and general education requirements). (2 C/1 lect, 1 lab).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>VT 2020</td>
<td>Comparative Veterinary Anatomy and Physiology</td>
<td>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).</td>
<td>2 C/1 lect, 1 lab.</td>
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<tr>
<td>VT 2230</td>
<td>Small Animal Nursing Techniques II</td>
<td>This course is a continuation of the nursing skills and techniques begun in Small Animal Nursing Techniques I. This course will introduce concepts of a specialized physical examination, intravenous injection techniques, and preventive medicine. This course provides for practical experience in performing specific skills involved with animal nursing. (Prerequisites: Grade of C or better in all previous required VT coursework and general education requirements).</td>
<td>3 C.</td>
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<tr>
<td>VT 2240</td>
<td>Small Animal Nursing Techniques III</td>
<td>This course will introduce concepts of first aid, care for critically ill patients, emergency nursing, oncology, cardiology, neurology, and collection of bone marrow aspirates. This course provides for practical experience in performing specific skills involved with animal nursing and builds on knowledge gained in previous courses. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements).</td>
<td>2 C.</td>
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<tr>
<td>VT 2250</td>
<td>Large Animal Procedures</td>
<td>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).</td>
<td>3 C/1 lect, 2 lab.</td>
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<tr>
<td>VT 2260</td>
<td>Veterinary Surgical Nursing II</td>
<td>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).</td>
<td>2 C. (2 C/1 lect, 1 lab).</td>
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<tr>
<td>VT 2270</td>
<td>Laboratory Animal Care and Management</td>
<td>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).</td>
<td>3 C/1 lect, 2 lab.</td>
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<tr>
<td>VT 2620</td>
<td>Applied Diagnostic Imaging</td>
<td>This course is a continuation of VT 1610, Fundamentals of Diagnostic Imagining. Focus of the course will be on the practical application of proper positioning to obtain quality radiographs. In addition to routine radiography, topics include: trouble shooting radiographic quality, use of contrast media, sonography, dental radiography, special imaging techniques and development of a radiographic technique charts. (Prerequisites: Grade of C or better in VT 1610, 2230, 2250, 2260, and 2920. May be taken concurrently with VT 2250 or 2260).</td>
<td>1 C/0 lect, 2 lab.</td>
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Veterinary Technician Field Experience

Students participate as Veterinary Technician in a full-time 8 week off-campus learning experience in business, industry, and/or the public sector. The student is involved in the day-to-day work of the facility, including restraint and handling of animals, office procedures, clinical laboratory techniques, radiology, and surgery preparation. The course will also incorporate an online 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 of 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).

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).

Clinical Lab Techniques II

This course is the summation of the laboratory skills and techniques needed by the veterinary technician. Additionally, application of microbiological and cytology, serology testing and semen analysis techniques utilized in veterinary practice is covered. This course includes a hands-on situation covering all laboratory procedures. (Prerequisites: Grade of C or better in all required previous VT courses and general education classes). (3 C/2 lect, 1 lab).

Kennel Management and Nutrition

This course will introduce principles of nutrition and advanced animal care duties. This course will provide further opportunities for kennel management of domestic animals while incorporating knowledge of proper nutrition and feeding of the dog and cat. Hands on animal care duties and teamwork and emphasized throughout the course. (Prerequisites: Grade of C or better in all required previous VT coursework and general education requirements). (2 C/1 lect, 1 lab).

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).

Small Animal Disease and Diagnostics

This course surveys infectious and noninfectious diseases of domestic animals. The content includes aspects of disease such as etiology, clinical signs, treatment, prevention, and pathology. Animal health care and preventative disease procedures will be implemented. Principles of the disease process, epidemiology, zoonoses, public health significance as well as behavior management will be emphasized. (Prerequisites: Admission to the Veterinary Technology program; grade of C or better in all required previous VT courses). (2 C/1 lect, 1 lab).

Applied Pharmacology and Nutrition

This course will introduce the regulations controlling the use of biological and pharmaceuticals in the management of animal disease. Additional topics will include rationale and precautions for therapeutic use of pharmaceutical with an applied approach. Incorporation of mentoring techniques for first year students will be added to other husbandry techniques. Emphasis will be on teamwork, communication, preventive health care and health problem assessments, and clinical nutrition. This course will include advanced animal nutrition and the concepts of clinical nutrition. Dietary management of various nutritional diseases for small animals will be explored (Prerequisites: All subsequent Veterinary Technology coursework; grade of C or better in all required previous VT courses). (2 C/1 lect, 1 lab).
WELD 1001 4 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 3 SMAW: Shielded Metal Arc Welding
Student will learn fundamentals of arc welding (stick welding) and its applications. Student will learn to set up work area, adjust machine and learn terminology associated with setting. The art of striking an arc, rod selection, controlling the arc and controlling and weld pool will be part of the course. Student will understand various weld joints with different metal types and thickness. Student will also understand what is an acceptable and unacceptable welding. (Prerequisite: MATH 1015 or test into MATH 0098). (3 C/0 lect/3 lab).

WELD 1003 1 Oxy-fuel Welding, Cutting and Brazing
The course is designed to show the student the safety of welding equipment, tank storage and handling. Students will learn the proper way to open, close and maintain tanks, regulators, gauges and/or flow meters. How to safely set-up and create the proper mixture for a neutral flame and understand the importance of it. Welding, cutting, and brazing will be demonstrated in the flat position. (Prerequisite: MATH 1015 or test into MATH 0098). (1 C/0 lect/1 Lab).

WELD 1004 3 GMAW: Gas Metal Arc Welding
In this course the students will learn to power up machines, setup machines and perform various welds in different positions. The student will learn the names and purposes of various parts of the machine, setup, adjustment and their repair. Student will demonstrate different settings for electrode and thickness of material (including various types of metal). Starting, stopping and correctly continuing a weld; welding pipe and square tubing, stopping halfway or non-stop. Students will know the three different types of GMAW transfer (short circuit, globular and spray transfer) and the appropriate gasses. Students will learn the difference between acceptable or unacceptable welds under various conditions. Students will learn to shut off machine and proper storage of materials. (Prerequisite: MATH 1015 or test into MATH 0098). (3 C/0 lect/3 Lab).

WELD 1005 3 GTAW: Gas Tungsten Arc Welding (TIG)
This course will teach the different types of Tungsten Inert Gas welding. The Student will learn proper set up, usage and shut down of equipment. Student will learn proper selection of electrodes, gases and equipment needed for welds. Student will demonstrate puddle control, bead with filler usage and various joint welds with different metal alloys. (Prerequisite: MATH 1015 or test into MATH 0098). (3 C/0 Lect, 3 Lab).

WELD 1006 2 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, Columbia S.A.
MA Spanish Language/Literature University of Iowa

Atwood, David
Mathematics
BS Mathematics University of New York - Plattsburg
MS Mathematics: Statistics Option Mankato State University

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

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

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
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<th>Name</th>
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<td>Christie, Julie</td>
<td>Certificate Adult Learning</td>
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MLIS Library Science University of Wisconsin - Milwaukee  

Pyfkeren, 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  
PhD Plant Biology University of Illinois  

Ruemping, Priscilla  
Mathematics  
AA Liberal Arts Rochester Community and Technical College  
BA Mathematics Winona State University  
MEd Adult Education University of Minnesota  

Sahs, Scott  
Chief Information Officer  
BA Art and Design, Telecommunications (minor) Iowa State University  
MS Computer Information Systems University of Phoenix  
MSpED Instructional Design for Online Learning Capella University  

Sanborn, Robert  
English  
MA English Education Ball State University  
PhD English Education Ball State University  

Sands, Amy  
Practical Nursing  
BA Nursing Luther College  
MSN Nursing Education University of Phoenix  

Schmahl, Steve  
Vice President Finance and Facilities  
BA Accounting Loras College  
BA Finance Loras College  

Schnaedker, 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  

Faculty and Administration Credentials -- RCTC Academic Catalog FALL 2016  

415
<table>
<thead>
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<th>Name</th>
<th>Degree/Field</th>
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</table>
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- Schedule of Classes
- Course Descriptions
- Common Course Outlines
- Academic Calendar
- About RCTC
- Directory
- Articulations
- Policies
- Student Life and Activities
- College News & Events