Crosby-Ironton High School
Registration Guide

Mission: Learning Through Relationships

Vision: Career and College Readiness for all students.

Student Guide to Graduation Requirements & Course Descriptions

2018-2019
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Crosby-Ironton High School operates on a six period day. Courses run for approximately 52 minutes per day for one semester (18 weeks). There are two semesters each year. Some courses are two semesters in length. All students are required to take a minimum of 5 courses and a maximum of 7 courses each semester. The school day begins at 8:30AM and ends at 2:42PM.

Crosby-Ironton Grading Scale

<table>
<thead>
<tr>
<th>Letter Grade Earned</th>
<th>Grade Point Average</th>
<th>How an Employer and/or College Views the grade.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>Superior, far exceeds average understanding as evidenced in course work and goes significantly beyond the standards.</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
<td>Excellent, exceeds average understanding as evidenced in course work and goes well beyond the standards.</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
<td>Far above average, meets or exceeds average understanding as evidenced in course work and fully understands the standards and goes somewhat beyond that level.</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>Far above average, fully meets average understanding as evidenced in course work and fully understands the standards and can deal with concepts somewhat beyond that level.</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
<td>Just above average, fully meets standards for basic understanding as evidenced in coursework and fully understands the standards and can deal with concepts at that level.</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
<td>Slightly above average, fully meets expectations for basic understanding as evidenced in coursework and understands the standards.</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>Average, meets minimum expectations and satisfies course requirements.</td>
</tr>
<tr>
<td>C-</td>
<td>1.67</td>
<td>Slightly below average, meets bare minimum expectations and satisfies course requirements.</td>
</tr>
<tr>
<td>D+</td>
<td>1.33</td>
<td>Below average, meets most minimum expectations and satisfies all or most course requirements.</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>Below average, meets most minimum expectations and satisfies most course requirements.</td>
</tr>
<tr>
<td>D-</td>
<td>.67</td>
<td>Far below average, but meets most minimum expectations and satisfies most course requirements with minimal understanding evidenced in course work.</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>NO CREDIT: Fails to meet minimum expectations in understanding and course work as evidenced by performance and submission of graded elements.</td>
</tr>
<tr>
<td>I</td>
<td>0</td>
<td>NO CREDIT: Incomplete</td>
</tr>
<tr>
<td>NC</td>
<td>0</td>
<td>NO CREDIT: No Pass. Inadequate achievement</td>
</tr>
<tr>
<td>P</td>
<td>0</td>
<td>PASS: Met average or above standards</td>
</tr>
</tbody>
</table>
C-IHS REQUIRED CLASSES AT EACH GRADE LEVEL

Students need to complete a minimum of 22 credits in grades 9-12 to be eligible for graduation. A year long course is worth one (1) credit. Semester courses are worth 1/2 credit unless otherwise noted. Student must take a minimum of 5-7 courses per semester. Credits are required in the following subject areas:

**Grade 9**
- English 9: 1 credit
- Civics: 1/2 credit
- Math course: 1 credit
- Science course: 1 credit
- Phy Ed.: 1/2 credit
- Health: 1/2 credit
- STEM: 1/2 credit
- Electives: 1/2-1 credit

**Grade 10**
- Science course: 1 credit
- English 10: 1 credit
- Human Geography: 1/2 credit
- Economics: 1/2 credit
- Math course: 1 credit
- Electives: 1 1/2 -2

**Grade 11**
- Social Course: 1 credit
- English course: 1 credit
- Math course: 1 credit
- Science course: 1 credit
- Electives: 1 1/2-2 credits

**Grade 12**
- English course: 1 credit
- Social course: 1 credit
- Electives: 2-4 credits

**4 Year College Requirements**
- 4 years of English
- 3.5 years of Social (US history, Geography)
- 3-4 years of Math (prefer 3 years of Algebra)
- 3 years of Science (Biological Sci. & Physical Sci.)
- 2 years of a single world language
- 1 year of fine arts

**2 Year College Requirements**
- High School Diploma or GED
- Recommend 2 years of Algebra
- Accuplacer Score
- Grade 5 .8 and High School Biology

The MCA and College/Career Readiness Exams are Graduation Tests developed by the Minnesota Department of Education. Below is a guide to follow for which test students take depending on grade level:

<table>
<thead>
<tr>
<th>Test</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCA-III Reading</td>
<td>Grades 3-8 and grade 10</td>
</tr>
<tr>
<td>MCA-III Mathematics</td>
<td>Grades 3-8 and grade 11</td>
</tr>
<tr>
<td>MCA-III Science</td>
<td>Grades 5 .8 and High School Biology</td>
</tr>
<tr>
<td>College/Career Readiness Exams</td>
<td>Grade 11</td>
</tr>
</tbody>
</table>
Admission at most of the state universities is granted to students who have graduated in the upper 50% of their high school graduating class or who have obtained at least a score of 21 on the ACT test. Some of the universities have stricter academic requirements. Students not meeting the criteria may be considered for admission under each university's conditional/provisional admission policy, which considers potential for success in college and other factors.

Students who wish to enroll in a Minnesota State University will need to demonstrate completion of the following college preparatory curriculum while in high school or their competency equivalent.

- English - 4 years (composition, literature, speech)
- Mathematics – 3-4 years (2 years of algebra and one year of geometry)
- Science - 3 years (1 year each of a biological science and physical science, and all courses with labs).
- Social Studies – 3-5 years (including 1 year of geography & U.S. History).
- World Language - 2 years of a SINGLE world language
- World Culture or Fine Arts - 1 year.

These requirements are similar to those at the University of Minnesota and many private colleges in Minnesota. Students should check with the college for their individual requirements.

**NCAA Eligibility Requirements for Student Athletes**

If you're interested in playing college sports, there are a few things you should know.

The NCAA (National College Athletic Association) has academic standards you must follow to be a student athlete. To play sports in college, you must complete at least 16 core courses while in high school with a qualifying grade point average and test scores. The requirements vary for Division I and Division II.

This includes:

* 3-4 years of English
* 2-3 years of math (Algebra 1 or higher)
* 2 years of natural or physical science
* 2 years of social science
* 1 year of an ADDITIONAL course in math, English, or natural or physical science
* 4 years of additional academic courses in any of the above areas or in foreign language, philosophy or comparative religion

* All students that want to play sports at the Division I or II level must have their course work and test scores evaluated by the NCAA Initial Eligibility Clearinghouse. To register with the clearinghouse visit [www.eligibilitycenter.org](http://www.eligibilitycenter.org) and see your high school counselor. This should be done the end of Junior year.

For more information on high school academic standards and eligibility visit [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

**Students with Unique Needs**

Crosby-Ironton High School is committed to providing the best educational environment for *all* students. Students with Individual Education Plans (IEP’s) or 504 Accommodation Plans are encouraged to review the information in this course description catalog with their case manager as they are selecting classes.

If you are a college bound student with a learning or physical disability, the PACER Center offers some tips on preparing for college. PACER Center is a [parent training and information center](http://www.pacer.org) for families of children and youth with all disabilities from birth through 21 years old:

For more information, contact the Pacer Center at (612) 827-2966 or [www.pacer.org](http://www.pacer.org).
College Courses at C-I

This list is subject to change due to instructor qualifications. Students can take a number of courses to earn college credit right here at Crosby-Ironton High School.

Courses with a “B” or better transfer into the Central Lakes College or other participating colleges for college credit. http://www.clcmn.edu/cis/advancedstanding.html
Classes taught by C-I teachers at C-I High School, earn college credit beginning Junior year.

<table>
<thead>
<tr>
<th>High School Course</th>
<th>CLC Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Development and Careers with Children</td>
<td>CDEV 1307: Child Health, 1 cr.</td>
</tr>
<tr>
<td></td>
<td>CDEV 1305: Child Abuse &amp; Neglect, 1 cr.</td>
</tr>
<tr>
<td></td>
<td>CDEV 1306: Child Safety, 1 cr.</td>
</tr>
<tr>
<td></td>
<td>CDEV 1308: Child Nutrition, 1 cr.</td>
</tr>
<tr>
<td>Digital Photography 1</td>
<td>PHIM 1164: Survey of Imaging, 2 cr.</td>
</tr>
<tr>
<td>Digital Photography 2</td>
<td>PHIM 1164: Survey of Imaging, 2 cr.</td>
</tr>
<tr>
<td>Multi-Media Projects</td>
<td>PHIM 1164: Survey of Imaging, 2 cr.</td>
</tr>
<tr>
<td>Welding 2</td>
<td>WELD1140: Trade Knowledge, 2 cr.</td>
</tr>
<tr>
<td>Welding 1</td>
<td>WELD 1100: Intro. to Welding, 2 cr.</td>
</tr>
<tr>
<td>Small Engines</td>
<td>MASE :Elective in Marine and Small Engines, 1 cr.</td>
</tr>
<tr>
<td>Outdoor Science</td>
<td>NATR 1200: Introduction to Natural Resources, 3 cr</td>
</tr>
</tbody>
</table>

The Minnesota State Colleges and Universities (MnSCU) Concurrent Enrollment courses are taught by Crosby-Ironton High School teachers at Crosby-Ironton High School and earn college credits that are highly transferable.

MnSCU College Courses-Concurrent Enrollment
Juniors with cumulative GPA of 3.0 or higher and Seniors with a cumulative GPA of 2.5 or higher.
Credits transfer to any MN state college or university and other institutions based on that institution’s policy.

<table>
<thead>
<tr>
<th>C-IHIS Course</th>
<th>College Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Social: US History to 1865</td>
<td>HIST 1472: US History to 1865, 3 credits</td>
</tr>
<tr>
<td>Senior Social: US History since 1865</td>
<td>HIST 1473: US History since 1865, 3 credits</td>
</tr>
<tr>
<td>Junior Social:</td>
<td>HIST 1412: World History from the beginning to 1500, 3 credits</td>
</tr>
<tr>
<td>Junior Social:</td>
<td>HIST 1413: World History 1500 to the Present, 3 credits</td>
</tr>
<tr>
<td>Science Elective</td>
<td>BIOL 1404: Human Biology, 3 credits</td>
</tr>
<tr>
<td>Science Elective</td>
<td>CHEM 1414: Fundamentals of Chemistry, 4 credits</td>
</tr>
<tr>
<td>Science Elective</td>
<td>BIOL: 1415: Environmental Biology, 4 cr.</td>
</tr>
<tr>
<td>English 12</td>
<td>COMM 1430: Public Speaking, 3 cr.</td>
</tr>
<tr>
<td>English 11 or English 12</td>
<td>ENGL 1410: Composition I, 4 credits</td>
</tr>
<tr>
<td>English 11 or English 12</td>
<td>ENGL 1411: Composition II, 4 credits</td>
</tr>
<tr>
<td>English 12</td>
<td>ENGL 1463: Intro to Literature, 3 credits</td>
</tr>
<tr>
<td>Math Elective</td>
<td>MATH 1520: Introduction to College Algebra, 3 credits</td>
</tr>
<tr>
<td>Math Elective</td>
<td>MATH 1470: College Algebra, 3 credits</td>
</tr>
<tr>
<td>Math Elective</td>
<td>MATH 1472: Precalculus, 5 credits</td>
</tr>
<tr>
<td>Math Elective</td>
<td>MATH 1477: Calculus I, 5 credits</td>
</tr>
<tr>
<td>Elective: Health Care Occupations</td>
<td>HINS 1120: Introduction to Health Information and Security, 1 credit</td>
</tr>
<tr>
<td></td>
<td>HINS 2190: Professional Practicum, 2 credits</td>
</tr>
<tr>
<td>Elective: Spanish 2</td>
<td>SPAN 1402: Beginning Spanish II, 4 credits</td>
</tr>
<tr>
<td>Elective: Spanish 3</td>
<td>SPAN 2401: Intermediate Spanish 1, 4 credits</td>
</tr>
</tbody>
</table>
SELECTING ENRICHED OR CIS (College In the Schools) CLASSES
C-I offers enriched or college level courses in English, social, science, mathematics, Spanish and health. Students must meet criteria, to ensure that students have the experience and the ability to succeed in these challenging courses. Check in the course descriptions section for criteria for enrollment in college level courses.

Students who enroll in college courses can expect to work at a college level pace and cover more complex material in greater depth than in the standard high school courses. Please be mindful, expectations in these classes are high. Grades earned by students in these classes become part of their permanent college academic record. Students who qualify to take these classes must be able to organize and manage their time, balance homework with extra-curricular activities and work, and initiate communication regularly with their teachers concerning make-up work. Because this is a college course, there will be higher expectations in academics and accountability for students that supersede rules and expectations listed in the high school student handbook. Another responsibility for students in a college-level course is to address any concerns related to grades or performance in the classroom. Our CIS courses tend to carry more “weight” on your cumulative grade point average due to the state law of credit bearing (.25 C-I credit of every 1 CLC credit). Due to this please note that the CIS grades will “help or hurt” your GPA.

Taking a CIS course will also change your exposure to instruction. Please read the course descriptions to determine the best instruction for you! Please carefully consider this before registering for these classes. Students who register for college level courses but do not meet the criteria will be placed in traditional courses.

<table>
<thead>
<tr>
<th>CIS</th>
<th>PSEO</th>
</tr>
</thead>
<tbody>
<tr>
<td>College content</td>
<td>College content</td>
</tr>
<tr>
<td>Credits transfer to most colleges</td>
<td>Credits transfer to most colleges</td>
</tr>
<tr>
<td>Attend at C-I High School (drive time)</td>
<td>Attend at the college of choice (drive time)</td>
</tr>
<tr>
<td>Teacher (trained in teaching)</td>
<td>Professor (trained as “expert in field”)</td>
</tr>
<tr>
<td>Increased weekly “contact time” (instructional time)</td>
<td>Less weekly “contact time” (instructional time)</td>
</tr>
<tr>
<td>18 weeks (or more) to cover content</td>
<td>14 weeks to cover content</td>
</tr>
<tr>
<td>Class of peers</td>
<td>Class of various ages (average is 26)</td>
</tr>
<tr>
<td>Parents have access to grades/progress</td>
<td>Parents have VERY limited access to grades/progress</td>
</tr>
<tr>
<td>Students have 0-2 hours of homework per week</td>
<td>Students avg. 2-3 hours of homework for each hour of class</td>
</tr>
</tbody>
</table>

POST-SECONDARY ENROLLMENT OPTIONS
Post-Secondary Enrollment Options (PSEO) allows high school juniors and seniors to take courses, full or part-time, at a post-secondary institution for high school and college credit. Juniors must have a minimum cumulative GPA of 3.0. Seniors must have a minimum cumulative GPA of 2.5. All students must take the Accuplacer, a college entrance exam to identify where the student is at in areas of math and reading. The program was designed to provide students with a greater variety of class offerings and the opportunity to pursue more challenging coursework than may be available at the high school. A student who is in the 10th grade may apply to an eligible postsecondary institution for the purpose of enrolling in a Career and Technical Education (CTE) course. The 10th grade student must have taken the 8th grade MCA Reading test in the 8th grade and have met the composite proficiency level of meets or exceeds. The tuition, fees, and required textbooks are at no cost to the students. Please be mindful, expectations in these classes are high. Grades earned by students in these classes become part of their permanent college academic record.

Students who qualify to take these classes must be able to organize and manage their time, balance homework with extra-curricular activities and work, and initiate communication regularly with their teachers concerning make-up work. Because this is a college course, there will be higher expectations in academics and accountability for students that supersede rules and expectations listed in the high school student handbook.

Another responsibility for students in a college-level course is to address any concerns related to grades or performance in the classroom. Please carefully consider this before registering for these classes. For more information on the PSEO program, see Ms. Doyle, your high school counselor. There are time deadlines for enrollment determined by each college institution.
Minnesota State College and University (C-I College in the Schools)

Minneapolis Transfer Curriculum

Minnesota State College and University’s version of the Minnesota General Education Transfer Curriculum (MnTC) is a 40-credit course cluster designed to transfer by formal agreement to all Minnesota public colleges and universities where it will meet all lower division general education requirements. A 2.0 MnTC GPA is required for recognition of a student’s completion of the entire Minnesota Transfer Curriculum.

CLC’s transfer curriculum, like similar curricula in all public colleges and universities in the State of Minnesota, is designed to provide students with a broad liberal arts and sciences foundation integrated with communications and thinking skills, and a study of contemporary concerns – all essential to serving an individual student’s lifetime personal, social, and career needs. This curriculum recognizes that knowledge of the liberal arts and sciences, by its universality and timelessness, equips students to transcend individual differences and the inevitable changes affecting life in the 21st century.

This curriculum identifies the knowledge and skills people need to participate successfully in a complex and changing world. Its courses emphasize our common membership in the human community; our personal need for intellectual fulfillment achieved through lifelong learning, and our daily involvement in a diverse world. Courses emphasize diverse ways of knowing, factual content, theories and models, and the creative modes of a broad spectrum of disciplines and interdisciplinary fields. Emphasized equally are the basic skills of discovery, integration, application, and communication.

Distance Learning Opportunities

C-I School District is in collaboration with other local school districts to provide high school level and college in the school's courses to increase opportunities and flexibility to all our students. High school students grades 9-12 may be eligible to take a Distance Learning class. If students are interested, they may visit www.mninfinity.org for some course information or see Ms. Doyle for all resources and registration materials. These courses are considered “non-traditional” for NCAA purposes.

Interested in trying an online mini-course? You can try a demo course to experience if online learning is right for you. We highly recommend you try it!

1. Log into: https://mnsite.ims.mnscu.edu
2. Username: Chocolate
3. Password: Chocolate

Should you take an online/ITV course?

<table>
<thead>
<tr>
<th>Should you take an online/ITV course?</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have good time management skills and can stick to a schedule without prodding and reminders from a teacher.</td>
<td>Yes/No</td>
</tr>
<tr>
<td>I am resourceful at figuring out what to do next when I hit a roadblock in following instructions.</td>
<td>Yes/No</td>
</tr>
<tr>
<td>I am NOT a procrastinator.</td>
<td>Yes/No</td>
</tr>
<tr>
<td>I would rate my reading ability at “above average” or higher.</td>
<td>Yes/No</td>
</tr>
<tr>
<td>I express myself fairly well in writing.</td>
<td>Yes/No</td>
</tr>
<tr>
<td>I would rate my technology skill level at “above average” or higher.</td>
<td>Yes/No</td>
</tr>
<tr>
<td>I have access to a computer and the Internet at home.</td>
<td>Yes/No</td>
</tr>
<tr>
<td>I am good at problem-solving technical difficulties on the computer.</td>
<td>Yes/No</td>
</tr>
</tbody>
</table>

7-8 Yes answers = good candidate
4-6 Yes answers = will struggle
0-3 Yes answers = avoid/not good candidate
1. Personalized Learning
Bridges Academy courses are based on personal interests and career aspirations. Courses are project-based instruction and integrate academic and technical skills with hands on learning activities. Students take ownership in their lessons and in many cases select the course projects.

2. Practical Learning Opportunities
Bridges Academies provide practical learning opportunities throughout the course work. Students will learn skills that will transfer to activities beyond the school day.

3. Progress to Career Goal
Bridges Academies will provide students with information about a particular career and develop an understanding of career progression. Enrollment in an Academy will provide personalized experiences with the ‘world of work’ through job shadowing, industry tours, and career fairs.

4. Integrated Learning Opportunities
Academy courses provide integrated learning. Courses combine technical, academic, and work skills that are critical to the specific career.

5. Recognition of Achievement
Completion of an Academy will provide students with an opportunity to be recognized at their high school graduation with an Academy certificate and honor cord.

6. Opportunities for Credit Transfer
Some Academies have courses that are articulated/Tech Prep. (Central Lakes College Advanced Standing Articulation Courses) or college courses (Central Lakes College in the Schools Courses). These courses provide opportunities for credit advancement/transfer to a post-secondary technical program of study. See page 5 of this guide.

7. Business Partnerships
The Bridges Academies and Workplace Connection provide students with opportunities to meet with and tour local businesses. In some cases, students who complete an Academy will be given an opportunity to interview for potential job openings.
See our Crosby-Ironton Academies in the back of this guide.
**Course Descriptions**
*Course offerings are dependent upon registration.
*Not all courses listed will be included for final registration.

**APPLIED TECHNOLOGY** (Formally known as Industrial Tech.)

**STEM**
*Required Grade 9
Credit: .5
Length: One semester

STEM is an acronym for Science, Technology, Engineering and Math. The foundation of this course will be highly interactive group activities built around STEM concepts. Each activity is designed to emphasize collaborative learning, critical and analytical thinking, creative thinking, problem solving and experimental design. Through participation in STEM course activities, students will practice many of the critical skills needed for 21st century careers. Math and science principles are incorporated in the hands-on activities.

**CAD DRAFTING & DESIGN**
Grades: 9, 10, 11, 12
Credit: .5
Length: semester

BRIDGES Construction and Manufacturing Career Academy course
Tech Prep college credit available, see page 5
Art requirement credit

This course is an exploration into the areas of architectural, engineering and computer-aided design and 3-D parametric modeling design. The theme of this course is that drafting and design are the extremely important factors in any mechanical, architectural or design process. The knowledge and skills achieved within this class will provide an excellent opportunity to prepare for any post-secondary engineering, design or technical program. If a career in drafting/design or engineering is in your future, this class is an excellent way to prepare yourself for that future endeavor.

**BASIC AUTOMOTIVE**
Grades: 10, 11, 12
Credit: .5
Length: semester
BRIDGES Transportation Career Academy course

This is an introductory course that is intended to provide students with basic knowledge to make wise economic decisions and take preventative measures that help them become well informed, safe drivers and automobile owners. This course will provide fundamental knowledge and experience in owning and maintaining a vehicle as well as survival skills in roadside emergencies.

**SMALL ENGINES**
Grades: 10, 11, 12
Credit: .5
Length: semester

BRIDGES Transportation Career Academy course
Tech Prep college credit available, see page 5

Students study the theory, operation, maintenance, troubleshooting and repair of both two stroke cycle and four stroke cycle small gas engines and outdoor power equipment. Safety, using proper tools and techniques, and current trade practices will be emphasized. This is a course where students can develop workplace skills (work ethic, problem solving, time management, reliability, honesty, teamwork, etc.).

**SMALL ENGINES 2**
Grades: 10, 11, 12
Credit: .5
Length: semester

BRIDGES Transportation Career Academy course
Tech Prep college credit available, see page 5

Students study operation, maintenance, troubleshooting and repair of both two stroke cycle and four stroke cycle small gas engines and outdoor power equipment. Safety, using proper tools and techniques, and current trade practices will be emphasized. This is a course where students can develop workplace skills (work ethic, problem solving, time management, reliability, honesty, teamwork, etc.).

**RESIDENTIAL & COMMERCIAL WIRING**
Grades: 9, 10, 11, 12
Credit: .5
Length: semester
BRIDGES Construction Career Academy course

This course is designed to introduce the student to the many electrical and communication concepts and their applications as found in our modern society. Areas to be covered will include basic electrical concepts and circuit design, both wireless and hard wire configurations, parametric design, introduction to power.

**CONSTRUCTION 1**
Grades: 9, 10, 11, 12
Credit: .5
Length: semester
BRIDGES Construction Career Academy course

Students will perform hand and machine operations including assembly for the construction of fixtures and other articles of wood or related materials, after completion of a safety test. Each student will have the opportunity to build at least one carpentry project, and if time allows, additional projects will be provided.

**CONSTRUCTION 2**
Prerequisite: Construction 1
Grades: 10, 11, 12
Each student will have the opportunity to design and build an advanced carpentry project.

**WOOD PRODUCTION 1**
Grades: 9, 10, 11, 12
Credit: .5
Length: semester
Bridges Construction Career Academy course
Students will perform hand and machine operations including cutting, shaping and assembly of fixtures, furniture, other articles of wood or related materials, after completion of a safety test.
Each student will be exposed to a wide variety of woodworking/cabinetmaking skills from the basic to the advanced.

**WOOD PRODUCTION 2**
Prerequisite: Wood Production 1
Grades: 10, 11, 12
Credit: .5
Length: semester
Each student will expand on a wide variety of woodworking/cabinetmaking skills. Each student will be allowed to choose their own project and the best methods and procedures to build it.

**WELDING 1**
Grades: 10, 11, 12
Credit: .5
Length: semester
Bridges Manufacturing Career Academy course
This course is an introduction to welding and the metal shop. Students will explore welding and develop basic, traditional welding skills using oxy-acetylene and arc welding equipment through a great variety of assignments and small projects. Students will learn to safely use all of the various hand and power tools in the metal shop. Students will be introduced to the CNC plasma table. This is a course where students can develop workplace skills (work ethic, problem solving, time management, reliability, honesty, teamwork, etc.). As always, student safety is the first priority.

**WELDING 2**
Grades: 10, 11, 12
Credit: .5
Length: one semester
This is a more in-depth study of welding with a focus on more modern techniques and processes (MIG, TIG, & CNC plasma table). Assignments and projects will feature greater variety and complexity Welding 1 and greater quality is expected. This course will help students further develop workplace skills (work ethic, problem solving, time management, reliability, honesty, teamwork, etc.). Again, student safety is the first priority.

**Advanced Welding and Fabrication**
New 2018-2019
Prerequisite: Welding 2 with a “B” or better (or teacher approval)
Grades: 11, 12
Credit: .5
Length: semester
Bridges Manufacturing Career Academy course
This is the most in-depth study of welding at CHS. Assignments and projects will require advanced mastery of welding techniques, processes and positions on a variety of materials. A part of this course is a student designed or modified "capstone" project that may involve incorporating hydraulics, pneumatics, or small gas or diesel engines along with welding and fabrication. Students may work as a group on capstone projects. There is also a "community service component to this course. Each student is required to "donate" one hour per month to welding and repair work around school or for the community. Students in the course are expected to demonstrate highly developed workplace skills (work ethic, problem solving, time management, reliability, honesty, teamwork, etc.). As always, student safety is the first priority. Class fees could be $20-$80, depending on design.

**ENGLISH**
The English Department teaches the four major areas of the language arts curriculum – reading, writing, speaking, and listening – to help students’ better use, understand, and appreciate the English language. The department aims to improve students’ ability to communicate effectively, both orally and in writing; to think critically; and to discover levels of meaning in a piece of writing. In addition, the English curriculum is designed to promote readiness for college coursework. Reading material is chosen both for its content – to expose students to a wide range of thought and experience – and for its importance in the literary canon. We believe that frequent reading and writing is essential to the English student’s development. Student writers receive guidance through the writing process from teachers and peers, with the goal that writers are able to analyze and revise their own work to produce highly-polished final drafts.

**English 9**
Required 9th grade course
Prerequisite: English 8
Credit: 1.0
Length: Year
Ninth grade English focuses on the mastery of analyzing a variety of nonfiction texts. Towards the beginning of the year, students will read short stories while discussing characters, scene, plot, and theme through shared inquiry. Throughout the process, students will gather information to support their theory and construct a paragraph, complete with textual evidence. Ninth graders will continue working on their paragraph skills in order to tackle the five paragraph essay. As such, grammar rules are consistently applied.

Complex but exciting texts are read throughout the year to support students’ literary growth and to encourage them to never turn down a challenging read.

Students will also develop vocabulary through reading, context clues, and a focus on Greek and Latin Roots.

English 10
Required 10th grade course
Prerequisite: English 9
Credit: 1.0
Length: Year
A major aspect of this course is the emphasis in analyzing literature in greater depth and producing more complex writing assignments. Students will continue to apply the knowledge acquired in earlier grades with more reinforcement, depth, and sophistication with grade-appropriate material. During the literary devices, it will include figurative language, imagery, allegory, and symbolism, and evaluate the test in a thoughtful manner.

Students will expand their writing and refine grammar and punctuation skills throughout written work. They will also develop vocabulary through reading, root word work, and context clues.

During the persuasion instructional component, students will learn the persuasive technique. They will research a topic with a focus on the credibility and comprehensiveness of evidence, generate an argument, and deliver a persuasive presentation.

Reading comprehension and critical thinking skills are also emphasized in this course as the students prepare for the MCA III test.

English 11
Required or College in the Schools
Prerequisite: English 10
Credit: 1.0
Length: Year
11th Grade English is a full year course designed to reinforce the writing, speaking, listening, reading, and critical thinking skills attained by students in English 9 and 10. A variety of classical, contemporary American and British literature is read. Students will work together and individually to gain a better understanding of the different types of literature. In addition, students will also be writing essays (both formal and personal), creating class presentations and other projects, reviewing grammar and punctuation rules, and increasing their vocabulary. Some practice for the ACT—including practice timed writings and test taking techniques will be reviewed.

Students will also develop vocabulary through reading, root word work, and context clues.

English 12
Required or College in the Schools
Prerequisite: English 11
Credit: 1.0
Length: Year
This course is designed to increase the student's ability to use English effectively in practical situations. It emphasizes sentence structure, grammar, vocabulary, and different forms of oral and written communication needed to function in the world.

Through a survey of various types of American and world literature (prose and drama), the student will learn to analyze selected writings through both oral and written methods. The course also focuses on the attainment and refinement of grammar and vocabulary skills and places emphasis on literary and expository writing which combines analytical thinking skills and the use of grammar.

In addition, this course will emphasize essay writing for students who intend to go to college. During the year, students will write essays, in class and out, of varying lengths. Students will learn to write effective introductions and conclusions, to organize their thoughts, to illustrate ideas with specific details, and to revise their papers.

This course is also designed to further enhance the student's oral communication skills. Emphasis is placed on organization and structure of a speech and the effectiveness of the speech delivery.

College Composition 1 1410
Prerequisite: Accuplacer Reading Test score of 78 + Completion of English 10/11 with a B or better
Credit: 1.0
Length: Year
Grades: 11 or 12
Credit: 1.0
Length: Fall Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 1 Communications 4 credits.
The rhetorical strategies of description, narration, and exposition (including but not limited to exemplification, classification, process analysis, comparison/contrast, and definition) will be the focus of the course. A descriptive essay, a narrative essay, and five expository essays at the professor's discretion will constitute the seven formal essay assignments. Students may also be asked to write journals, a resume and letter of application, and to review grammar. Students will be expected to adhere to the basic writing process (brainstorming, outlining, drafting, and revision—individual and peer) and demonstrate their awareness of the following concepts in their reading and writing: thesis, audience, tone, unity, coherence, and emphasis. The course will also include a literature component (selections at professor's discretion) to present basic critical terminology and foster critical thinking skills. A "C" is needed for college credit.

College Composition 2 1411
Prerequisite: Completion of Composition 1 1410 with a C or better
Grades: 11 or 12
Credit: 1.0
Length: Spring Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 1 Communications 4 credits.
Students will write a minimum of five formal essays, demonstrating their familiarity with the following rhetorical strategies: analysis (of ideas or human situations into comparable or constituent parts) cause and effect reasoning, inductive/deductive reasoning, and argument/persuasion. Subjects may be but are not limited to reaction, evaluation, and interpretation of literature and/or socio-cultural phenomena. Students will learn the principles of the academic research process and their essays will demonstrate a command of both the APA (American Psychological Association) and the MLA (Modern Language Association) formats.

Introduction to Literature 1463
Prerequisite: Completion of Composition 2 1411
Grades: 12
Credit: .75
Length: Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 6 Humanities & Fine Arts and Goal 7 Human Diversity 3 credits.
Introduction to literature is a survey course of great, creative literature, specifically prose, drama, and poetry. In addition to developing personal responses to the selected works in the course, students will become adept at discussing and analyzing literature and will develop fluency in literary concepts (plot, point of view, characterization, setting, symbolism, theme, tone, figurative language, stream-of-consciousness, Realism, et al.). For students wishing to continue study in poetry, drama, American, or world literatures, this course is a necessary starting point. Students who wish to expand their reading experience, develop a deeper appreciation for creative literature, and learn techniques for literary interpretation will also benefit greatly from this course.

Public Speaking 1430
Prerequisite: Accuplacer Reading Test score of 78
Completion of 11th grade English with a C or better
Grades: 12
Credit: .75
Length: Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 1 Communications 3 credits.
This course is designed to introduce students to the basic principles of effective public speaking, focusing on informative and persuasive techniques. Topics included are topic selection and research/development; message and argument construction; audience and occasion analysis, critical thinking and evaluation; outlining and structure; and delivery and presentation skills.

FAMILY and CONSUMER SCIENCES
*Course offerings are dependent upon registration.
*Not all courses listed will be included for final registration.
Human Development  
**Prerequisite:** none  
**Grades:** 9, 10, 11, 12  
**Credit:** .5  
**Length:** Semester  
Personal development and growth are a lifelong process. This course is designed to help an individual develop in the following ways:  
• understanding oneself and others  
• analyzing male and female roles  
• addressing issues of violence in relationships  
• making wise choices in dating relationships  
• realistic adjustment in relationships  
• resolving individual and family challenges  
• establishing personal financial goals for the future  
• demonstrating effective communication skills in personal, family, and community situations

Child Development  
**Prerequisite:** none  
The Minnesota Department of Education strongly recommends a parenting course during high school.  
**Grades:** 9, 10, 11, 12  
**Credit:** .5  
**Length:** Semester  
Tech Prep college credit available, see page 5  
The class meets national and state graduation standards in both main content areas: resource management and interpersonal communications. This course explores the social, emotional, physical, and intellectual growth and development of a child from birth to age two. Important components include analysis of relevant parenting issues related to the following:  
• decision to parent  
• pregnancy  
• career opportunities  
• prenatal development  
• childbirth  
• guidance techniques  
• child care  
Parenting and child development classes are for individuals who are involved in children's lives now or will be in the future.

Careers with Children  
**Prerequisite:** none  
**Grades:** 9, 10, 11, 12  
**Credit:** .5  
**Length:** Semester  
Tech Prep college credit available, see page 5  
The class meets national and state graduation standards in both main content areas: resource management and interpersonal communications. This course explores the social, emotional, physical, and intellectual growth and development of a child from toddler to pre-school age. Important components include analysis of relevant parenting issues related to the following:  
• guidance techniques  
• child care  
An emphasis is on exploring career choices with children.

Fashion Design/Trends (offered in 2018-2019)  
**Prerequisite:** none  
**Grades:** 9, 10, 11, 12  
**Credit:** .5  
**Length:** Semester  
Fashion Design/Trends is a course offered for the individual interested in exploring roles in the fashion and merchandising world. Students will study: the effect of color and body structure in garment selection.  
• consumer skills related to purchasing  
• garment design, selection, and wardrobe planning.  
• history of fashion.  
Classroom experiences will include units in textile and apparel design and historical and cultural influence.  
This course offers individual opportunities for preparing, constructing, and evaluating a personal project.

Interior Design (offered in 2019-2020)  
**Prerequisite:** none  
**Grades:** 9, 10, 11, 12  
**Credit:** .5  
**Length:** Semester  
Interior Design is a course that will provide students with an opportunity to explore  
• housing choices  
• historical and architectural styles  
• design elements and principles  
• creation of interior environments.  
Individual projects simulate "real-life" opportunities to individualize one's own living space through analysis of budgeting, purchasing, floor plans, interior housing materials, furnishings, and arrangements. Opportunities for exploration of related careers and with business owners in these areas will be provided.

Food for Life (offered in 2018-2019)  
**Prerequisite:** none  
**Grades:** 9, 10, 11, 12  
**Credit:** .5  
**Length:** Semester  
This course provides current food-related topics such as nutrition and the relationship to good health, consumerism, and the scientific principles of food preparation. This course provides weekly lab opportunities to enable students to practice participating in decision-making and cooperative group skills. Topics:  
• safety and sanitation  
• food pyramid and nutritional needs  
• meal planning and food cost analysis  
• food service techniques  
• preparation techniques (standard measurement)  
• appliance use and care  
• time management strategies  
• meal service and etiquette.
International Foods (offered in 2019-2020)
Prerequisite: none
Grades: 9, 10, 11, 12
Credit: .5
Length: Semester

International Foods will explore some of the culinary preparation techniques of international and ethnic foods as part of individual’s cultural identity. The culturally unique food traditions based on a country’s climate, agricultural/manufactured projects, geography, economic standard of living, religion, traditions and festivals of a country’s population will be introduced. Students will tour the world making a travel log of countries and frequently prepared cultural foods. The countries will include some from the following regions: Central America, South America, Europe, Middle East, Africa, and Asia.

Introduction to Food Service
Prerequisite: none
Grades: 10, 11, 12
Credit: .5
Length: Semester

Course includes an introduction to the food service industry, culinary terms, ware washing techniques, and hospitality. This course also covers basic cooking techniques, knife identification and use, and basic kitchen first aid and safety. Students are responsible for preparation of soups, sauces, meat, fish, and poultry items using various moist and dry heat methods. This course also covers identification and preparation of vegetables, rice, and pasta products. This course will certify you in ServSafe ® program, a great thing to put on your resume and job application.

Fine Arts
These courses fulfill the one credit required in Art for Graduation.

It may be possible for students to take Band and Choir during the same class period.

CONCERT CHOIR
Prerequisite: Audition
Grades: 9-12
Credit: 1.0
Length: Year

Art requirement credit

Concert Choir is a progressive vocal music experience aimed at developing each individual student through large group, small group, and solo singing. Students in Concert Choir will sing 3 and 4 part music in a variety of styles and concerts, ranging from Bach to pop. Three concerts are performed annually. Students will review and expand music fundamentals, especially sight-singing. Solo singing is encouraged but not required. Previous choir experience is desired but not required. A one-day choir trip is usually taken every spring. Concert Choir is a fun learning experience and a good class to learn teamwork while representing our school and community.

SYMPHONIC BAND
Prerequisite: Audition
Grades: 9-12
Credit: 1.0
Length: Year

Art requirement credit

Symphonic Band is open to students in grades 9-12 who have previously participated in Band. One credit is earned for a full year of satisfactory participation. The Symphonic Band performs at three concerts a year, as well as performing at athletic events as part of the Pep Band. Members are required to attend 2 lessons per quarter, and are encouraged to participate in Region and State Solo and Ensemble contests.

A CAPPELLA CHOIR
Prerequisite: Audition
Grades: High School
Credit: 1.0
Length: Year

Art requirement credit

A Cappella Choir is offered to students in high school who are interested in supporting their school through singing and performance. One credit is earned for one full year of participation. The course offers an aesthetic musical experience encompassing four to eight part harmony which is usually unaccompanied. The A Cappella Choir performs four concerts a year: Christmas, End of Winter Variety, Spring Pops, and at graduation as well as working collectively with the Chamber Singers on special events. A major tour is taken every other year. Members are also required to participate in Section Large Group Choir Contest. Entrance is by audition in the spring of the previous year.

CHAMBER SINGERS
Prerequisite: Audition
Grades: High School
Credit: 1.0
Length: All year

Art requirement credit

Chamber Singers is a select group of 12 to 16 singers chosen from the A Cappella Choir. The chamber singers perform in three concerts as well as the special events, section and state contests, and at many social and community gathering.
Mathematics

Math department typical course sequence. Students may get teacher approval for an alternate course. For the graduating class of 2020 and beyond.

<table>
<thead>
<tr>
<th>Grade 7</th>
<th>Grade 8</th>
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<tbody>
<tr>
<td>Pre-Algebra</td>
<td>Accelerated Algebra</td>
<td>Accelerated Geometry</td>
<td>Algebra 2</td>
<td>Introduction to College Algebra &amp; College Algebra</td>
<td>Pre-Calculus &amp; Calculus</td>
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<td>Algebra</td>
<td>Geometry</td>
<td>Transitional Algebra</td>
<td>Algebra 2</td>
<td></td>
<td>Introduction to College Algebra &amp; College Algebra</td>
</tr>
</tbody>
</table>

**GEOMETRY**

*Prerequisite: Algebra*

*Grades: 9-10*

*Credit: 1.0*

*Length: Year*

This course is a focus on the properties of geometric figures. Algebra will be incorporated to solve many geometric problems. The development of proofs and logical thinking are goals of this course. Geometry is fundamental to many other areas of study.

**Accelerated GEOMETRY**

*Prerequisite: Algebra and approval*

*Grades: 9*

*Credit: 1.0*

*Length: Year*

Geometry is a branch of mathematics that deals with the properties of lines, angles, triangles, circles, and many other types of figures. The development of proofs and logical thinking are goals of this course. Geometry is fundamental to many other areas of study.

**TRANSITIONAL ALGEBRA**

*Prerequisite: Geometry*

*Grades: 10-12*

*Credit: 1.0*

*Length: Year*

This course reviews linear algebra and introduces non-linear algebraic concepts. Geometry, data analysis, and probability are also covered. Students need a TI 83 or TI 84 Calculator. This course is not NCAA approved. Previously called Integrated Algebra/Geometry.

**ALGEBRA 2**

*Prerequisite: Accelerated Geometry OR Transitional Algebra*

*Grades: 10-12*

*Credit: 1.0*

*Length: Year*

This course focuses on applications of linear equations and systems of linear equations. Matrices are introduced and are used to solve linear systems. Non-linear functions include: quadratic, higher-degree polynomial, absolute value, rational, radical, exponential, and logarithmic. Theoretical vs. experimental probability and data analysis are also covered.
**Introduction to College Algebra 1520**

Prerequisite:
Accuplacer Elementary Algebra Test score of 76 or better or ACT math score of 20 or higher
Accuplacer Reading Test score of 56 or better
Completion of Algebra 2, or equivalent, with a “C” or better.
Grades: 11 or 12
Credit: .75
Length: Fall Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal Elective 3 credits.

This course will intensify the study of concepts first seen in Algebra 2, as well as introduce topics that will be covered in College Algebra. A basic understanding of solving equations and using function notation will be expected, so that students can investigate solving systems of equations in three variables, systems of non-linear equations, polynomial equations, and basic exponential and logarithmic equations. Additionally, function operations and graphing function transformations will be introduced and explored.

OR

**Algebra 3 A**

Prerequisite: Completion of Algebra 2 with a “C” or better
Grades: 11 or 12
Credit: .75
Length: Fall Semester

Students enrolled in Algebra 3A are not required to meet the CIS admission standards for Introduction to College Algebra 1520.

**College Algebra 1470**

Prerequisite: Completion of Introduction to College Algebra 1520 with a “C” or better
Grades: 11 or 12
Credit: .75
Length: Spring Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 4 Math/Logical Reasoning 3 credits.

This is a college-level math course that covers topics such as functions and graphs, inverse functions, linear functions and equations, quadratic functions and equations, polynomial functions, rational functions, radical functions, exponential functions, systems of equations and inequalities, and problem solving. A graphing approach will be used in this course and therefore the use of a graphing calculator will be highly emphasized.

OR

**Algebra 3 B**

Prerequisite: Completion of Algebra 3 A with a "C" or better
Grades: 11 or 12
Credit: .75
Length: Spring Semester

Students enrolled in Algebra 3B are not required to meet the CIS admission standards for College Algebra 1470.

**College Pre-Calculus 1472**

Prerequisite: Completion of College Algebra 1470 with a “C” or better
Grades: 12
Credit: 1.25
Length: Fall Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal Elective 5 credits.

This course is intended to provide the essential mathematical background needed in calculus. Topics include equation solving, functions (polynomial, radical, rational, exponential, logarithmic, trigonometric, and inverse trig), identities, applications, and parametric/polar graphing. The student should have a cursory understanding of functions and graphs, equations and inequalities, and polynomial, rational, inverse, exponential and logarithmic functions, problem solving, and use of a graphing calculator.

**College Calculus 1477**

Prerequisite: Completion of College Pre-Calculus 1472 with a “C” or better
Grades: 12
Credit: 1.25
Length: Spring Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal Elective 5 credits.

Review of the concept and properties of a function. Emphasis on the graphing and behavior of a function. Limits are introduced and developed. The derivative of a function is defined and applied to algebraic and trigonometric functions. Anti-differentiation and elementary differential equations. Definite integral as a limit of a sum and as related to anti-differentiation via the
Fundamental Theorem of Calculus. Applications to maximum, minimum and related rates. Differentiation and integration of exponential and logarithmic function.

**Independent Study Math**  
Prerequisite: Teacher and High School Office approval  
**Grades:** 9-12  
**Credit:** .5  
**Length:** Spring Semester  
Independent Study courses may be used by students needing to recover math credits or students wanting additional instruction in math that do not meet prerequisites for upper level math courses. Courses are computer based and are assigned by a math teacher based on the individual student’s level of readiness.

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**Physical Education & Health**  
**Physical Education 9**  
Required  
**Grades:** 9  
**Credit:** .5  
**Length:** Semester  
Physical education is a vital part of each student's total educational process and will aid in the development of becoming a fully functional person. This course is designed to promote physical fitness through activity. The goal is to teach you ways to perform activities for fitness the rest of your life. Physical Education objectives are concerned with the development of interpersonal skills, motor skills, physical fitness, knowledge and understanding of activities, favorable self-image, and creative expression.

**Health 9**  
Required  
**Grades:** 9  
**Credit:** .5  
**Length:** Semester  
This semester class is required for graduation with the credit being earned by a passing semester grade which is calculated by averaging your points earned each quarter. This class is intended to provide you with the opportunities to apply your understanding of health knowledge and addresses the following three main goals:  
1. To provide current information and research about health facts that will be the basis for your future health decisions.  
2. To provide an opportunity for you to examine your health attitudes and practices.  
3. To give you an opportunity to compare and contrast how your goals, values, needs and environment may influence your health decisions.

**CIS Health Care Occupations**  
Prerequisite: Accuplacer Reading score of 56+  
Student needs to attend some “rotations” at CRMC before the traditional school day.  
**Grades:** 11 or 12  
**Credit:** .75  
**Length:** Semester  
College in the Schools Central Lakes College: Transfer Curriculum Goal Elective 3 credits.  
Introduction to Health and Information and Security for 1 credit and Professional Practicum for 2 credits.  
This course provides an introduction to multiple professional health careers for individuals interested in exploring health careers. Students will learn about the healthcare industry, why it’s growing and what career opportunities are available. The course provides a theoretical and practical foundation for students to explore health professions including personal career assessment, and college curriculum/program design for specific health careers including the educational requirements for specific careers.  

**Health Care Occupations**  
Prerequisite: Student needs to attend some “rotations” at CRMC before the traditional school day.  
**Grades:** 11 or 12  
**Credit:** .75  
**Length:** Semester  
This is the high school version. College prerequisites do not prevent participation in the course.
**Lifetime Fitness**  
*Prerequisite: PE 9*  
*Grades: 10-12*  
*Credit: .5*  
*Length: Semester*  
This course is designed to promote wellness through regular participation in physical fitness activities. Students will learn rules, skills, safety procedures, and apply principles of training necessary to improve fitness and enjoyment in a variety of sports. Students will also be introduced to concepts of personal development in health-related fitness and physical skills: these include cardiovascular fitness, muscular strength and endurance, body composition, and flexibility.

### Science

**PHYSICAL SCIENCE**  
*REQUIRED COURSE GRADE 9*  
*Credit: 1.0*  
*Length: Year*  
In this course students will be introduced to fundamental skills so that they can engage in the process of science. These skills include: observing, experimenting, identifying problems, predicting, applying knowledge, defining terms, organizing data, interpreting data, and results, and seeking further evidence. Students will understand the investigative nature of science, engineering, matter, motion, energy, human interactions with physical and earth systems.

**BIOLOGY**  
*REQUIRED COURSE GRADE 10*  
*Credit: 1.0*  
*Length: Year*  
This course in as introduction to biology and living organisms. Topics include biochemistry, cells, mitosis, genetics, DNA, protein synthesis, evolution, bioethics, biodiversity, and ecology. Lab investigations will give students the opportunity to apply the tools, techniques, and methods used by biologists.

**OUTDOOR SCIENCE**  
*Elective Course Grade 11 or 12*  
*Credit: 1.0*  
*Length: Year*  
*Tech Prep college credit available, see page 5*  
Outdoor Science is a project based course designed to provide students with an investigative look into the animal kingdom and environmental systems. Students will explore the origin and relationships, classification, anatomy, functions, social behavior and reproduction of a wide variety of species. Topics include entomology, ichthyology and mammalogy. Students will explore forestry, soil and aquatic systems and projects related to these systems. This course in not NCAA approved.

**EXERCISE PHYSIOLOGY**  
*Elective Course Grade 11 or 12*  
*Prerequisite: Biology*  
*Credit: .5*  
*Length: Semester*  
The purpose of this course is to increase the student’s knowledge and understanding about human physiology and the adaptations that occur during exercise. Exercise physiology is a branch of physiology that deals with the functioning of the human body during exercise. An understanding of how the body responds to acute and chronic exercise is crucial for the physical educator, athletic trainer, coach, fitness expert, or exercise physiologist. Emphasis is placed on bioenergetics as well as circulatory, respiratory and neuromuscular responses to the physical stress of exercise. Also discussed are the effects of environmental factors and ergogenic aids on athletic performance. The objective of this course is for the student to gain an understanding and working knowledge of how the body responds to exercise so that they may apply this knowledge to their chosen field. This will be an active class and you will be dressing some days as you would for a PE class.

**Fundamentals of Chemistry 1414**  
*Prerequisite: Accuplacer Elementary Algebra Test score of 71 and Accuplacer Reading score of 56+*  
*Elective Grades: 11-12*  
*Credit: 1.0*  
*Length: Year*  
*Bridges Health Care Career Academy course*  
*College in the Schools Central Lakes College: Transfer Curriculum Goal 3 Natural Sciences 4 credits.*  
Topics of this course include an introduction to stoichiometry, nomenclature, bonding, gas laws, and acids and bases.
1. have a working knowledge of the basic structure of particles found in an atom and how the periodic table is arranged
2. have a working knowledge of the different types of matter and energy and how they are classified
3. have a working knowledge of the nomenclature (naming, writing formulas, etc.) involved in chemistry
4. understand the balancing chemical reactions
5. have a working knowledge of the motel theory and stoichiometry
6. have a working knowledge of the modern atomic theory and how the structure of an atom was developed
7. have a working knowledge of how atoms bond together to form compounds and molecules and classifying the different types of bonds
8. have a working knowledge of the properties and mathematics involved with gases
9. have a working knowledge of the acid and base theories OR

**CHEMISTRY**

Prerequisite: Advanced Algebra
Elective Grades: 11-12
Credit: 1.0
Length: Year
BRIDGES Health Care Career Academy course

Students enrolled in Chemistry are not required to meet the CIS admission standards for Chemistry 1414.

**Human Biology 1404**

Co or Prerequisite: Chemistry
Elective Grades: 11-12
Credit: 1.0
Length: Year
College in the Schools Central Lakes College: Transfer Curriculum Goal 3 Natural Sciences 3 credits.
BRIDGES Health Care Career Academy course

This course provides an introduction to the structure and function of the human body using an organ systems approach. The organ systems studied include the integumentary, skeletal, muscular, circulatory, respiratory, digestive, excretory, nervous, endocrine and reproductive systems. Human development and heredity will also be integrated. Two hours lecture and two-hour lab weekly.

OR

**HUMAN BIOLOGY**

Co or Prerequisite: Chemistry
Elective Grades: 11-12
Credit: 1.0
Length: Year
BRIDGES Health Care Career Academy course

**Environmental Biology 1415**

Prerequisite: Accuplacer Reading score of 56+
Elective Grades: 11-12
Credit: 1.0
Length: Fall Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 10 People & the Environment AND Goal 3 Natural Sciences 4 credits.

This course takes a holistic approach to current status and future prospects of earth’s life support systems emphasizing human impact on the environment. Topics include interrelationships of organisms and their environment, population dynamics, pollution, major ecosystems, examination of causes and possible solutions to major local, national and global environmental problems. This course is a theme course - environment. OR

**ENVIRONMENTAL BIOLOGY**

Elective Grades: 11-12
Credit: 1.0
Length: Fall Semester

Students enrolled in Environmental Biology are not required to meet the CIS admission standards for Environmental Biology 1415.

**PHYSICS**

Elective Grade: 12
Credit: 1.0
Length: Year Long

Physics covers the physical laws that govern the natural world in which we live, from the smallest particles that make up matter to the structure of the universe. This course includes a laboratory component that is designed to reinforce theoretical concepts with hands-on experiences and physical measurements.
Social Studies

CIVICS
REQUIRED 9th Grade
Credit: .5
Offered with: STEM
Length: One Semester
Civics is the study of our political system by examining the foundations of our country’s government and the U.S. Constitution. Students will explore the roles of the different levels and branches of government, citizenship, voting and elections, the legal system, and conclude with a study of foreign affairs and challenges facing our government. This course will emphasize skills such as considering multiple perspectives, analyzing different types of primary and secondary sources, thinking critically and working with tools such as maps, graphs, and charts.

HUMAN GEOGRAPHY
REQUIRED Grade 10
Credit: .5
Offered with: Economics
Length: One Semester
Students will be immersed in the study of world cultures. This course will begin with learning the basics of thinking geographically and understanding the concepts of population and migration. Students will further explore the topics of folk and popular culture, language, religion, ethnicity, and how political boundaries shape culture. The course will conclude with examining the relationship shared between humans and the environment. Students can expect to be engaged in relevant and meaningful active learning tasks, collaborate with peers, and demonstrate content mastery using various types of assessments in order to make personal connections with the course material.

ECONOMICS
REQUIRED Grade 10
Credit: .5
Length: One Semester
Offered with: Human Geography
Students will learn skills related to economic reasoning, personal finance, fundamental concepts, microeconomic concepts and macroeconomic concepts. An emphasis will be placed on personal and financial goals and the process of exchange of goods.

WORLD HISTORY
REQUIRED 11th Grade or CIS World History
Credit: 1.0
Length: Year
The first area is the study of World History, with an emphasis placed on the many civilizations and cultures that have and continue to affect world affairs. The second area of study is a 4 week unit on careers. It emphasizes self-assessment, career research tools, and different avenues to training for a career.

WORLD HISTORY 1 HIST 1412
From the Beginning to 1500
Prerequisite: Accuplacer Reading score of 56 or higher
Credit: .75
Length: Fall Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 5 History/Social Behavioral Sciences & Goal 7 Human Diversity 3 credits.
This course will examine the development of world civilizations from pre-history to 1500, and will compare the religion, politics, economy and culture of various world civilizations. Examples will be drawn from Africa, Europe, Asia and the Americas.

WORLD HISTORY 2 HIST 1413
1500 to the Present
Prerequisite: Accuplacer Reading score of 56 or higher
Credit: .75
Length: Spring Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 5 History/Social Behavioral Sciences & Goal 8 Global Perspective 3 credits.
This course will explore the major developments in world history from 1500 to the present. Topics will include the development of major culture areas and cultural groups that existed in 1500, the influence of European expansion and colonialism, democratic revolutions, industrialization, movements for national liberation, and the rise of the global economy.

CONTEMPORARY U.S. HISTORY
REQUIRED 12th Grade or CIS Social
Credit: 1.0
Length: Year
This course covers American History from the Reconstruction to Contemporary. Students will learn about the presidents and their policies, the economy, geography, battles, the feminist movement, terrorism, the Cold War, fads, civil rights, and other issues that occurred during this period of time.

US HISTORY TO 1865  HIST 1472
Prerequisite: Accuplacer Reading score of 56 or higher
Elective Grades: 12
Credit: .75
Length: Fall Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 5 History/Social Behavioral Sciences & Goal 7 Human Diversity 3 credits.
This course will acquaint students with the basic chronological narrative and themes of America's past from native North America through the Civil War. Social, political, economic and cultural developments will be covered. A multi-cultural perspective will be incorporated into the course; taking into account those Americans denied access to positions of political and economic power in the past. Analytical skills focusing on reading, writing and use of primary documents will be emphasized.

US HISTORY SINCE 1865  HIST 1473
Prerequisite: Accuplacer Reading score of 56 or higher
Elective Grades: 12
Credit: .75
Length: Fall Semester
College in the Schools Central Lakes College: Transfer Curriculum Goal 5 History/Social Behavioral Sciences & Goal 7 Human Diversity 3 credits.
This course will survey the history of the American people since Reconstruction. Social, political, economic and cultural developments will be covered. A multi-cultural perspective will be incorporated into the course; taking into account those Americans denied access to positions of political and economic power in the past. Analytical skills focusing on reading, writing and use of primary documents will be emphasized.

TECHNOLOGY & INNOVATION
*Course offerings are dependent upon registration.
*Not all courses listed will be included for final registration, based on instructor qualifications.

COMPUTER APPLICATIONS
Prerequisite: none
Grades: 9, 10, 11, 12
Credit: .5
Length: one semester
BRIDGES Business Career Academy course
Microsoft Office has been the industry standard productivity software for decades, but the market is changing. Web based solutions, like Google Docs, are being leveraged by businesses and organizations. Through projects and simulations, students will learn to use a variety of productivity software that will prepare them for post-secondary education and today's ever changing workforce. The course will explore applications used to create spreadsheets, documents, presentations, databases, and other modern technologies.

MULTIMEDIA & GRAPHIC DESIGN PROJECTS
Grades: 10, 11, 12
Credit: .5
Length: semester
BRIDGES Graphic Arts Career Academy course
Tech Prep college credit available, see page 5
In this course students will learn to use a variety of software to create and design print and digital multimedia projects. Students will be exposed to topics such as presentations, video slideshows, video editing, desktop publishing, and Web design. Through
these projects, they will learn to work with, edit, and combine images, audio, and videos. Some of the software used in this class will be GIMP, Audacity, Scribus, WeVideo, LibreOffice, Windows Movie Maker, and Weebly.

**DIGITAL PHOTOGRAPHY 1**
Grades: 10, 11, 12  
Credit: .5  
Length: semester  
BRIDGES Graphic Arts Career Academy course  
Tech Prep college credit available, see page 5 of this guide  
Art requirement credit  
This course is designed to engage students in the lifelong hobby of photography. Students will learn to capture unique images through the use of photography concepts like composition, lighting, and exposure. Students will use a free and open source program called GIMP to edit images and create projects. Other multimedia software may be used as well.

**DIGITAL PHOTOGRAPHY 2**
Grades: 10, 11, 12  
Credit: .5  
Length: semester  
BRIDGES Graphic Arts Career Academy course  
Tech Prep college credit available, see page 5  
Art requirement credit  
This course is designed to prepare students who are interested in becoming a serious amateur photographer or pursuing a photography career. Students will learn about advanced photography concepts like Aperture, Shutter Speed, ISO, and their relationship to one another. Students will use GIMP and other multimedia software to enhance their images and design creative projects.

**WEB DESIGN**  
Prerequisite: none  
Grades: 10, 11, 12  
Credit: .5  
Length: semester  
Do you ever wonder how the Internet works? Have you ever thought of making your own Web page? This hands-on computer class shows you both! Students will learn HTML and use various Web design software to create sites with appealing design and meaningful content. Students will create Web pages for personal, school and business use.

**INTRO TO COMPUTER PROGRAMMING**  
Grades: 9, 10, 11, 12  
Credit: .5  
Length: semester  
Students will begin learning the concepts of programming through various introductory languages and environments. Students will apply what they learn to create programs, applications, and games. A unit on robotics will be included. This course is designed for students interested in learning more about programming and is recommended for those going on to college and/or technical school. The course provides students with a solid background of standard computer logic, which will enhance problem-solving skills. This course is designed to be a rewarding and fun learning experience for students of all programming skill levels.

**VIDEO PRODUCTION**  
Grades: 10, 11, 12  
Credit: .5  
Length: semester  
Video Production is an introductory course that focuses on creating short movies/videos. Students in the course will produce short videos, taking each project from preproduction, through shooting, to post-production and editing. Students will learn how to work with cameras, equipment, and various editing software. Students will work individually and in groups to write, shoot, and edit projects. To be successful in this course, students will need to work cooperatively in small groups.

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**Visual Art**

All Art courses can be counted toward the 1 credit art requirement  
*Course offerings are dependent upon registration.  
*Not all courses listed will be included for final registration.

**CREATIVE CRAFTS**  
Prerequisite: none  
Grades: 9-12  
Credit: .5  
Length: Semester  
Art requirement credit  
This class offers a variety of projects a creative individual that wants to try something other than “traditional” art mediums. Some of the projects in this class will be recycled art, mixed media, collage, pop-ups, scratchboard, and wood-burning.

**PAINTING**  
Prerequisite: none  
Grades: 9-12  
Credit: .5  
Length: Semester  
Art requirement credit
Students will work with watercolor, tempera, and acrylic paint in this course. Some of the projects include portraiture, still-life, landscape, abstract, color-wheel, analogous, complementary, and monochromatic. Different styles and periods of painting will also be explored and researched. Mural projects are also a possibility.

**3D ART**  
*Prerequisite: none*  
*Grades: 9-12*  
*Credit: .5*  
*Length: Semester*  
*Art requirement credit*  
This course is for tactile learners that like to make functional and non-functional art objects. Students will learn the basic hand-building techniques with clay, as well as have opportunities to work on the potters wheel. If time and materials permit, wire and plaster will also be a medium of exploration.

**DRAWING**  
*Prerequisite: none*  
*Grades: 9-12*  
*Credit: .5*  
*Length: Semester*  
*Art requirement credit*  
This course is a foundational class for beginners and focuses on the elements and principles of art. A variety of subject matter will be covered through various projects and students will improve upon basic skills of craftsmanship and observation. Value, line, shape, form and composition are concepts that will build upon through a variety of drawing assignments.

**FINE ART**  
*Prerequisite: none*  
*Grades: 9-12*  
*Credit: .5*  
*Length: Semester*  
*Art requirement credit*  
This course offers a variety of art mediums for beginners to explore. Drawing, painting, clay, printmaking, glass etching, wood-burning, and ink are the main units covered. This is a solid entry level art class that will make you more versatile with various mediums.

**ART STUDIO**  
*Prerequisite: Have taken 2 or more art classes*  
*Grades: 11-12*  
*Credit: .5*  
*Length: Semester*  
*Art requirement credit*  
This class is for serious artists that have a high level of work ethic. You need to be self-motivated, as there is a higher level of freedom and responsibility with projects. You will work with 2-3 dimensional mediums. Students will work on art for college submissions and professional portfolios.

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**WORLD LANGUAGE**

**Spanish 1**  
*Prerequisite: A grade of C or better in English*  
*Grades: 10, 11, 12*  
*Credit: 1.0*  
*Length: Year*  
This is a beginning-level Spanish course designed to give students exposure to the Spanish language and Latin American culture. Students will be taught through immersion giving them the most opportunity to experience the language and culture. They will learn useful phrases and concepts that are applicable to everyday life.

**Spanish 2**  
*Prerequisite: Spanish 1*  
*Grades: 11 or 12*  
*Credit: 1.0*  
*Length: Year*  
This is a beginning-level Spanish course designed to build upon Spanish 1. It is also taught through immersion; giving students the opportunity to develop their language skills and expand their understanding of the culture. Students will be challenged to improve not only their written and verbal skills, but also to advance their ability to read and listen.

**or**

**College Spanish 1402 (Beginning Spanish II)**  
*Prerequisite: Spanish 1  
Accuplacer Reading Test score of 56 or higher*  
*Grades: 11 or 12*  
*Credit: 1.0*  
*Length: Year*  
*College in the Schools Central Lakes College: Transfer Curriculum Goal 8 Global Perspective 4 credits.*

This course is an entry level language class. Beginning level vocabulary groupings (pastimes, family, time, clothing, foods) will be used in elementary conversations. Grammar will include present tense of regular verbs, stem-changers, present progressive, irregulars, reflexives and some idiomatic constructs. Preterite tense of regular verbs will be introduced, time permitting. Graded level readings are used for comprehension and paired activities and role-play are implemented for beginning conversational interaction. Cultural data and correct intercultural communication is introduced by country.
College Spanish 2401  
(Intermediate Spanish 1) or  
Spanish 3  
Prerequisite: College Spanish 1402 or 2-3 years of  
HS Spanish  
Grades: 11 or 12  
Credit: 1.0  
Length: Year  
College in the Schools Central Lakes College:  
Transfer Curriculum Goal 6 Humanities and Fine  
Arts & Goal 8 Global Perspective 4 credits  
This course is a review of the fundamentals in  
grammar and vocabulary covered in the first year (or  
years) of Spanish language study, with amplification  
to more advanced structures and complex language  
usage. The remaining verb tenses (future,  
conditional, subjunctives) will be introduced through  
reading, writing and speaking. Graded level readers  
are used for pronunciation, comprehension and  
cultural information, providing topics in art, music,  
politics and current events. Short essays and  
conversations complete the language skill practices.  

Career Preparation Positions  
These positions are available through application only. Teacher approval and the completion of a contract signed  
by teacher and student are required. Students must confirm with the school counselor that their overall credits  
will allow.  

High School Classroom Aide  
Elective Grades 11-12  
Credit: none  
Length: Semester  
Teacher approval required.  
The following are duties the high school classroom aide may be assigned: helping with students who need individual tutoring,  
correcting papers, keeping a daily journal, writing a short research paper relating to the classroom subject which they are helping in,  
taking class attendance and others as assigned.  

Elementary Mentor  
Elective Grades 11-12  
Credit: .25  
Length: Semester  
Teacher approval required.  
Student must be able to provide own transportation. Students will be assigned to work with a teacher at the elementary during one  
class period five days a week. You will assist the teacher with paper work, tutoring, bulletin boards, etc. There are also written  
assignments for this course.  

Sports Information and Technology  
Elective Grades 11-12  
Credit: .5  
Length: Semester  
Students must have approval from the Activities director.  
Students will have the opportunity to work with coaches in football, boy’s and girls’ basketball and potentially other sports. Students  
will learn how to operate video equipment and be responsible for filming games, practices, uploading content to the internet or  
finalizing products for coaches. Students will also be responsible for taking and dealing with the respective sports statistics, using a  
variety of sports statistic programs and Microsoft or Apple products. This class will have varied meeting schedule with  
responsibilities during and after the school day. Students will be required to fill out an application and interview with the coaches.  

Activities Director Aide  
Elective Grades 11-12  
Credit: .25  
Length: Semester  
Students must have approval from the Activities Director.  
Students will assist in the operation of the school activities. As part of this offering, students will increase and enhance their  
competencies in the following areas: computer literacy, reference skills, communication skills, promotional activities, information  
storage and retrieval, organization of materials, critical evaluation of materials and development of basic job skills.  

Yearbook  
Elective Grades 9-12  
Credit: .25  
Length: Semester  
Students must have approval from the yearbook advisor.  
Students will assist in the organization and development of the yearbook. This course is completed on an individual learning plan  
that requires time outside of the “traditional school day”.  

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Construction and Design Career Academy
Crosby Ironton High School

The Construction and Design Academy allows students to acquire not only basic construction skills but also the information needed to understand the architectural and construction industries of today. In the construction courses, students will learn a variety of machine operations related to wood and other construction materials. Computer Aided Design software will allow students to learn skills in both architectural and mechanical design processes. With the variety of career opportunities in the construction industry, students will be prepared to go directly to employment or further their education when completing this Academy.

Academy Courses

**CAD Drafting and Design .5 High School and/or 3 Articulated Credits**
This course is an exploration into the areas of architectural, engineering and computer-aided design and 3-D parametric modeling design. The theme of this course is that drafting and design are the extremely important factors in any mechanical, architectural or design process. The knowledge and skills achieved within this class will provide an excellent opportunity to prepare for any post-secondary engineering, design or technical program. If a career in drafting/design or engineering is in your future, this class is an excellent way to prepare yourself for that future endeavor.

**Residential and Commercial Wiring .5 High School Credits**
This course is designed to introduce the student to the many electrical and communication concepts and their applications as found in our modern society. Areas to be covered will include basic electrical concepts and circuit design, both wireless and hardware configurations, parametric design, introduction to power.

**Wood Production .5 High School Credits**
Students will perform hand and machine operations including cutting, shaping and assembly for the construction of fixtures, furniture, other articles of wood or related materials, after completion of a safety test. Each student will have the opportunity to build at least one project, and if time allows, additional projects will be provided. Class fees could be $20-$60, depending on design.

**Construction .5 High School Credits**
Each student will be exposed to a wide variety of woodworking skills from the basic to the advanced. Each student will be allowed to choose their own project and the best methods and procedures to build it. The course will also be involved with learning the basics of framing and building house and pole barn type of structures Class fees could be $40-$80, depending on design.

**Academic Completion Standard**
Students wishing to receive a certification for this academy must earn a “B” or better in each course. Students must also have an attendance record of no less than four days absent.

**Business and Industry Experiences**
Students will explore and research careers with industry speakers, work with professionals in the industry in areas of plumbing, wiring, HVAC and cabinetry, and participate in Career Fairs.

**Job Skills**
In addition to having technical skills, employers expect their workers to have other skills such as:
- **Understanding Planning and Time Management**
- **Be an Active Member of a Team**
- **Use Critical Thinking and Problem Solving Skills**
- **Work Safely**
- **Work Precisely and Manage Tools and Equipment**
- **National Career Readiness Certification**

**Careers Options**
Building Mechanical Engineer, Construction Project Supervisor, Inspector, Plumbing Inspector, Engineer, Associate Architect, Building Code Administrator, Engineering Technician, Custom Stair Builder, Finish Carpenter, Lead Carpenter, Trim Carpenter, Assembler, Construction Worker, Installer

**Job Outlook**
Construction Careers – 9 % growth for Central Minnesota

**Postsecondary Programs**
Please check at [www.mnscu.edu](http://www.mnscu.edu) or [www.umn.edu](http://www.umn.edu) for colleges that offer educational programs for this Career Academy.
Culinary Career Academy  
Crosby Ironton High School

The Culinary Academy allows students to acquire not only basic food skills but also the information needed to understand the culinary industry. Students will experience preparation and presentation of a variety of foods and gain an understanding of nutritional as well as health and legal issues related to the culinary industry. With the variety of career opportunities and the needs from local to national businesses, students will be prepared to go directly to employment or further their education when completing this Academy.

Academy Courses

**Food for Life**  
.5 High School Credit  
This course provides current food-related topics such as nutrition and the relationship to good health, consumerism, and the scientific principles of food preparation. This course provides weekly lab opportunities to enable students to practice participating in decision-making and cooperative group skills. Topics: • safety and sanitation • food pyramid and nutritional needs • meal planning and food cost analysis • food service techniques • preparation techniques (standard measurement) • appliance use and care • time management strategies • meal service and etiquette.

**International Foods**  
.5 High School Credit  
International Foods will explore some of the culinary preparation techniques of international and ethnic foods as part of individual’s cultural identity. The culturally unique food traditions based on a country’s climate, agricultural/manufactured projects, geography, economic standard of living, religion, traditions and festivals of a country’s population will be introduced. Students will tour the world making a travel log of countries and frequently prepared cultural foods. The countries will include some from the following continents: Central America, South America, Europe, Middle East, Africa, and Asia.

Academic Completion Standard  
Students wishing to receive a certification must complete all the courses and pass each course with a minimum of 80% average.

Business and Industry Experiences  
Students will explore and research careers with industry speakers, practice food preparation, and participate in career fairs.

Job Skills  
In addition to having technical skills, employers expect their workers to have other skills such as:  
Prepare Foods in Strict Compliance with Health Laws, Be an Active Member of a Team, Use Critical Thinking and Problem Solving Skills, Effectively communicate, Work Precisely with Kitchen Equipment and Recipes, National Career Readiness Certificate (NCRC).

Careers Options  
Chef, Pastry Chef, Short Order Preparation Specialist, Caterer, Event Food Planner, Restaurant Manager, Hospitality Event Specialist, Nutritionist, Herbalist, Food Service Manager, Food and Wine Specialist

Job Outlook  
Culinary Careers - 17% growth for Central Minnesota

Postsecondary Programs  
Please check at [www.mnscu.edu](http://www.mnscu.edu) or [www.umn.edu](http://www.umn.edu) for colleges that offer educational programs for this Career Academy such as;  
Culinary Institute of Minneapolis, The Arts Institute, St. Cloud Community and Technical College, Alexandra Community and Technical College, St. Paul College, South Central College, North East Hibbing Community College, Minneapolis Community and Technical College, Hennepin Technical College, University of Minnesota-Crookston, St. Cloud State University, University of Minnesota-Twin Cities.
Graphic Arts Career Academy  
Crosby-Ironton High School  

The Graphic Arts Academy offer students an opportunity to be a key player in the advertising and marketing industry of today as they develop advertising and promotional activities across different media channels. Students will learn about the different types of media, such as the cameras, films, the internet and digital forms. Learning new software and developing writing skills will allow students to acquire the basic tools necessary to design and create multimedia projects. Students with a creative skills and are interested in being part of the ever changing media industries should enroll in this Academy.

Academy Courses  

**Digital Photography I**  
.5 High School Credits  
This course is designed to engage students in the lifelong hobby of photography. Students will learn to capture unique images through the use of photography concepts like composition, lighting, and exposure. Students will use a free and open source program called GIMP to edit images and create projects. Other multimedia software may be used as well.

**Digital Photography II**  
.5 High School Credits  
This course is designed to prepare students who are interested in becoming a serious amateur photographer or pursuing a photography career. Students will learn about advanced photography concepts like Aperture, Shutter Speed, ISO, and their relationship to one another. Students will use GIMP and other multimedia software to enhance their images and design creative projects.

**Multimedia and Graphic Design Projects**  
.5 High School Credits  
In this course students will learn to use a variety of software to create and design print and digital multimedia projects. Students will be exposed to topics such as presentations, video slideshows, video editing, desktop publishing, 3D animation, and Web design. Through these projects, they will learn to work with, edit, and combine images, audio, and videos. Some of the software used in this class will be GIMP, Audacity, Scribus, WeVideo, LibreOffice, Windows Movie Maker, Blender, and Webley.

**Web Design**  
.5 High School Credits  
Do you ever wonder how the Internet works? Have you ever thought of making your own Web page? This hands-on computer class shows you both! Students will learn HTML and use a variety of Web design software to create sites with appealing design and meaningful content. Students will create Web pages for personal, school and business use.

**Video Production**  
.5 High School Credits  
Video Production is an introductory course that focuses on creating short movies. Students in the course will produce short videos, taking each project from preproduction, through shooting, to post-production and editing. Students will learn how to work with cameras, equipment, and various editing software. Students will work individually and in groups to write, shoot, and edit projects. To be successful in this course, students will need to work cooperatively in small groups.

**Academy Completion Standard**  
Students wishing to receive a certification for this academy must complete the three of the five academy courses. In addition, students must maintain a grade point average of ‘C’ or better in each course.

**Business and Industry Experiences**  
Students will explore and research careers with industry speakers and by participating in career fairs. Through a variety of hands-on projects, students will be exposed to software and equipment used in these career fields.

**Job Skills**  
In addition to having technical skills, employers expect their workers to have other skills such as:  
- Listening skills  
- Ability to work with customers and coordinating with other employees  
- Critical thinking, problem solving and decision making skills  
- Managing equipment and software  
- Employing necessary academic skills, such as math, grammar and technology

**Careers Options and Job Outlook**  
Photographer, Graphic Designer, Photojournalism, Web Designer, Journalist, Graphic Designer, Technical Writer, Advertising Manager, Animator, Administrative Assistant, Marketing Specialist, Magazine Editor, Internet Publisher, Telecommunications Specialists. Graphic Designer 7% growth, Photographer 4% growth for Central Minnesota

**Postsecondary Programs**  
Please check at www.mnscu.edu for colleges that offer educational programs for this Career Academy
Health Sciences Career Academy  
Crosby-Ironton High School

The Health Sciences Career Academy allows students to acquire the basic skills necessary to determine if a career in one of the many Health Science fields is for them. The Academy offers curriculum that aligns with the Health Science courses in high education, specifically at Central Lakes College. The Academy introduces you to the world of health careers from being a doctor to a home health assistant.

**Academy Courses**

**Health Care Occupations**  
0.75 High School and/or 3 College Credits  
Students enrolled in this course will participate in a unique partnership between Crosby-Ironton High School and Cuyuna Regional Medical Center. Topics covered in the course include the history and present state of healthcare, successful and essential behaviors of healthcare workers, as well as legal and ethical issues in healthcare. A major component of this course is participation in healthcare career rotations at Cuyuna Regional Medical Center and information, instruction and a formal mock interview.  
Due to the clinical nature of rotations, two unexcused “no shows” to rotations by a student will result in the student being dropped from the course.

**Human Biology**  
1.0 High School and/or 3 College Credits  
Human Biology deals with skills and knowledge essential for all health and medical fields. It covers the anatomy and physiology of the human body. Fetal pigs and/or rats will be used as models for dissection. Many guest speakers will share their career experiences in various health fields. Students will be required to complete several lab reports each quarter. A research project will also be required each semester.

**Chemistry**  
1.0 High School and/or 4 College Credits  
Experimentation and observation are essential to the development of chemistry as a science. At the end of this course, students should know how scientific information is obtained and how models and theories are developed. Labs, lectures, and problem solving are all a part of this science course.

**Academic Completion Standard**

Students wishing to receive a certification must complete all courses. In addition, students must maintain a grade point average of a ‘C’ or better for each course in this Academy.

**Business and Industry Experiences**

Students will explore and research careers with industry speakers, practice health care, tour local nursing homes, and participate in career fairs.

**Job Skills**

In addition to having technical skills, employers expect their workers to have other skills such as:
- Use and maintain private medical data in strict compliance with laws and organizational policy
- Be an active member of the health care team
- Use critical thinking and problem solving skills
- Effectively communicate with staff, patients and others
- Work precisely with data, equipment and medications

**Careers Options**

Careers in the health sciences field vary widely from entry-level positions such as, nursing assistant and dietary aide to doctoral level practitioner and researchers.

**Job Outlook**

Health Careers - 27% growth for Central Minnesota

**Postsecondary Programs**

Please check at www.mnscu.edu for colleges that offer educational programs for this Career Academy such as:
- Central Lakes College
- Northland Community and Technical College
- Rochester Community and Technical College
- South Central College
- Minneapolis Community and Technical College
- St. Cloud Technical and Community College
- Anoka Technical College
- Minnesota State College
- Metropolitan State University
- Pine Technical College
- Minnesota State University-Mankato
- Riverland Community College
- University of Minnesota
- St. Cloud State University
Human Services Career Academy
Crosby Ironton High School

The Human Services Academy is the gateway to a wide variety of careers in the world of public service to children and families. Students will learn the foundations of human development and also the educational strategies and organizations dealing with the variety of issues individuals and families deal with today. Highlights of this Academy are the developmental stages of children from birth to pre-school age. A Spanish course will allow students to develop skills with the issues of diversity among children and families. Students completing this academy will have the skills necessary to gain entry-level employment or the basic knowledge to continue on to higher education.

Academy Courses

**Human Development .5 High School Credit**
Personal development and growth are a lifelong process. This course is designed to help an individual develop in the following ways; understanding oneself and others, analyzing male and female roles, addressing issues of violence in relationships, making wise choices in dating relationships, realistic adjustment in relationships, resolving individual and family challenges, establishing personal financial goals for the future and demonstrating effective communication skills in personal, family, and community situations.

**Child Development .5 High School and/or 3 Articulated College Credits**
The class meets national and state graduation standards in both main content areas: resource management and interpersonal communications. This course explores the social, emotional, physical, and intellectual growth and development of a child from birth to age 2. Important components include analysis of relevant parenting issues related to the following: decision to parent, pregnancy, career opportunities, prenatal development, childbirth, guidance techniques and child care. Parenting and child development classes are for individuals who are involved in children’s lives now or will be in the future.

**Careers with Children .5 High School Credit**
The class meets national and state graduation standards in both main content areas: resource management and interpersonal communications. This course explores the social, emotional, physical, and intellectual growth and development of a child from toddler to pre-school age. Important components include analysis of relevant parenting issues related to the following: guidance techniques and child care. An emphasis is on exploring career choices with children.

**Spanish 1 High School Credit**
The purpose of this course is for students to start a foundation in language skills of Spanish and to be exposed to cultures of the Spanish-speaking world. Students will acquire reading, writing, listening, and speaking skills in Spanish to communicate with others in real-life situations.

**Academic Completion Standard**
Students wishing to receive a certification for this academy must earn a ‘B’ in each of the three semester courses and a ‘B’ in one semester of the Spanish course.

**Business and Industry Experiences**
Students will explore and research careers with industry speakers, may tour local businesses, and participate in career fairs. The Mixed Blood Theatre Group will perform to Academy students.

**Job Skills**
In addition to having technical skills, employers expect their workers to have other skills such as: Listening Skills, Written Communication Skills, Ability to Work with Parents and Families, Ability to Manage Materials and Supplies, Decision Making Skills

**Careers Options**
Social Worker, Financial Worker, Child Psychologist, Family Services Officer, Child Care Assistant, Child Care Provider, Childcare Specialist, Daycare Aide, Playground Aide, Before and After School Daycare Worker, Child Caregiver, Preschool Aide Associate Teacher, Bilingual Kindergarten Teacher, Early Childhood Teacher, Elementary Teacher, Group Teacher, Head Teacher, Pre-K Teacher (Pre-Kindergarten Teacher), Preschool Teacher, Head-Start Teacher, Toddler Teacher, Kindergarten Teacher

**Job Outlook**
Young Children Careers are expected to see an 11 % growth for Central Minnesota
Human Services Careers are expected to see an 18% growth in Central Minnesota

**Postsecondary Programs**
Please check at [www.mnscu.edu](http://www.mnscu.edu) for colleges that offer educational programs for this Career Academy such as;
Central Lakes College, South Central College, Inver Hills Community College, St. Cloud State University, Bemidji State University, St. Paul Community College, Minnesota State Community and Technical College, Ridgewater College, Dakota County College, and Bemidji State University.
Manufacturing Technology Career Academy  
Crosby-Ironton High School

The Manufacturing Academy provides students with an understanding of the vast number of careers in the world of manufacturing today. Students will experience working with a variety of metals while designing, welding and machining parts. Skill in blue print reading, tool sharpening, thread cutting and shop safety are essential elements of the courses. The academy uses real life activities and allows students to work on both required and personal projects. When completing this academy, students will have skills needed to enter the workforce or transfer to higher education.

Academy Courses

**Trade Knowledge (Or Equivalent)**  
.5 High School Credit  
This course develops the student's ability to follow instructions, interpret specifications, and use various hand and power tools required to make thread repairs, soldering techniques, and double flare steel tubing. Various types of math problems are also addressed.

**Welding I**  
.5 High School Credits and/or 2 Articulated Credits  
This course will introduce student to the world of welding. Subjects covered will include stick, wire feed, oxyacetylene welding and cutting welding aluminum, repaired projects and the basic operation of a computer controlled plasma cutter. Students will be able to select and construct a project of their own and they develop welding skills.

**CAD**  
.5 High School Credits  
This course focuses on learning the fundamentals of CAD (Computer Aided Drafting) software and understanding how to utilize several programs. The student’s imagination and creativity will be challenged with individual and various assigned projects. Both Auto CAD and Inventor programs will be used in Architectural and Mechanical drafting purposes. Creating, interpreting plans, and reading complex graphs, tables and charts will highlight this course.

Academy Completion Standard

Students wishing to receive a certification for this academy must complete three of the four Academy courses. In addition, students must maintain a 'B' or better grade point average in each course.

Business and Industry Experiences

Students will explore and research careers with industry speakers, participate in career fairs and tour local businesses in addition to the hands-on activities using a variety of electrical systems, robotics systems and residential and commercial electronic systems. Students will also be making 'Ice Tongs' that they will be selling to the public as a fund raiser.

Job Skills

In addition to having technical skills, employers expect their workers to have other skills such as:

- Listening skills
- Ability to work with customers and coordinating with other employees
- Critical thinking, problem solving and decision making skills
- Managing equipment and software
- Employing necessary academic skills, such as math, grammar and technology

Careers Options

Electronic and Electricity Technician, Associate Engineer, Commercial/Residential Electrician, Industrial Electrician and Medical Equipment Technician, Robotics Technician

Job Outlook

Electrical Careers - 16 % growth for Central Minnesota

Postsecondary Programs

Please check at [www.mnsu.edu](http://www.mnsu.edu) for colleges that offer educational programs for this Career Academy such as; Northland Community and Technical College, Century College, South Central College, Central Lakes College, Ridgewater College, Minnesota State Community and Technical College (Wadena Campus), Northwest Technical College, Hennepin Technical College, Rochester Community and Technical College, Anoka Technical Community College, Hennepin Technical College
Natural Resources Career Academy
Crosby Ironton High School

The Natural Resources Academy provides students with an introduction to the careers in the areas of natural resources. Students will learn about water, soil, wildlife, and fisheries from a natural resources and conservation perspective. Learning survey techniques, identifying animals, and evaluating habitats are just a few of the highlights for this academy. Students will work with experience hands-on projects which include measuring trees, completing health assessments for ecosystems, soil and aquatic testing and creating management plans for forestry and wildlife. The Academy is designed for students interested in environmental studies and a hands-on career.

Academy Courses

Natural Resources

Outdoor Science is a project based course designed to provide students with an investigative look into the animal kingdom and environmental systems. Students will explore the origin and relationships, classification, anatomy, functions, social behavior and reproduction of a wide variety of species. Topics include entomology, ichthyology and mammalogy. Students will explore forestry, soil and aquatic systems and projects related to these systems.

Biology

This course will provide students with an overview of current knowledge in the Biological Fields. Basic lavatory skills and technological applications will be taught and emphasized. A summary of current news report about Biology and multiple lab reports are part of the course. Topics covered will include scientific problem-solving, heredity and genetics, nature of science and engineering, cell biology, ecology, evolution, human interactions with natural systems, human health and disease.

Academic Completion Standard
Students wishing to receive a certification must complete all courses and earn a minimum of a ‘C’ or better grade.

Business and Industry Experiences
Students will explore and research careers with industry speakers, and participate in career fairs. In addition, students may tour business and organizations that specialize in the natural environment.

Job Skills
In addition to having technical skills, employers expect their workers to have other skills such as:
Written Communication Skills, Journal or Document Lab Findings, Ability to Work with Other Professionals, Ability to Manage Materials and Supplies, Problem Solving Skills, Decision Making Skills

Careers Options

Job Outlook
Natural Resource Careers 19 % growth for Central Minnesota.

Postsecondary Programs
Please check at www.mnscu.edu for colleges that offer educational programs for this Career Academy such as;
Northland Community and Technical College, South Central College, Century College, Ridgewater College, Minnesota West Community and Technical College, Hennepin Technical College, Rochester Community and Technical College, Normandale Community College, North East Vermillion Community College, St. Cloud State University, Central Lakes College, Winona State University, and University of Minnesota.
Transportation Career Academy
Crosby-Ironton High School

The Transportation Academy allows students to acquire the basic skills necessary to service and maintain today's small engines. In addition, students apply their knowledge and skills to real-world practices as they build and repair small engines. The Academy offers curriculum that aligns with the methods, tools and equipment used by technicians in small engine/outdoor power businesses. This Academy introduces students to the variety of outdoor power vehicle career fields and has options from repair to sales. Students wishing to continue their education can transfer their skills to high education.

Academy Courses

**Basic Auto**
This course covers various areas in the field of mechanics. First semester areas of concentration include buying a car, basic car care, tune-up, carburation, and emissions control work. Included are basic electricity and electrical systems, valve work and some major engine work.

**Small Engines I**
This course details the principles of power mechanics with special emphasis given to the two and four stroke cycle in small gas engines. Students will experience using a variety of tools and testing equipment while following service manual specifications.

**Small Engines II**
Students will learn the theory of two-stroke, four-stroke, rotary, hot air and steam engines. They will also disassemble and reassemble a four-stroke engine. Students will engage in the repair of four stroke engines and other power equipment.

Academy Completion Standard
Students wishing to receive a certification for this academy must complete all courses while earning a grade of “B” or better in each course.

Business and Industry Experiences
Students will explore and research careers with industry speakers, practice car maintenance and repair, tour local automotive dealerships, and participate in career fairs. Students will tour and listen to a speaker from local industries such as Graphic Packaging.

Job Skills
In addition to having technical skills, employers expect their workers to have other skills such as:
- Listening skills
- Ability to work with customers and coordinating with other employees
- Critical thinking, problem solving and decision making skills
- Managing tools and equipment

Careers Options
Power Equipment Mechanic, Service Technician, Small Engines Mechanic, Diesel Mechanic Service Manager, Quick Lube Technician, Automotive Engineering Technology, Motorcycle Mechanic, Agricultural Mechanic, Sales Representative, Equipment Manager,

Job Outlook
Mechanic - 18% growth for Central Minnesota

Postsecondary Programs
Please check at [www.mnscu.edu](http://www.mnscu.edu) for colleges that offer educational programs for this Career Academy such as;

World Cultures and Spanish Academy

The World Cultures and Spanish Academy is pending for approval currently. More information will be available soon.