

# **2023-2024 Course Catalog**



**MOUNTAIN IRON-BUHL  
HIGH SCHOOL**

**MOUNTAIN IRON, MN**

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Dear Parents, Guardians, and Students,

As you review this Course Catalog, please pay close attention to graduation requirements and plan ahead. Mountain Iron-Buhl ISD 712 requires a minimum of 24 high school credits to graduate. All requirements for graduation must be completed for a student to be eligible to participate in commencement exercises.

**2022-2023 Mountain Iron-Buhl High School Local Graduation Requirements for grades 9-12:**

English	4 credits	Social Studies	4 credits
Mathematics	3 credits	Science	3 credits
Including Algebra, Geometry & Algebra II		Including Biology and Chemistry or Physics	
Phys. Ed.	.5 credit	Health	.5 credit
Fine Arts	1 credit	Electives	8 credits
		Total	24 credits

Students entering their junior and senior year should be making sure they are prepared to meet any entrance requirements for the post-secondary plans they may have. Students are encouraged to take a rigorous course load every year, most importantly their senior year, which should include a math class if possible.

Mountain Iron-Buhl offers a variety of classes to meet the needs of our students. Concurrent enrollment courses are college credit classes offered in the high school. In order to be eligible to take these courses, juniors must have a cumulative GPA of 3.0 and seniors need a 2.5. Students must also earn qualifying scores on the Accuplacer, ACT or MCA assessment. Students will receive 1 high school credit for a full year course while each college determines their own credit load per course. This is a great benefit for students to enjoy their high school years while receiving college credits.

Students are given adequate time to select the courses of their choice. All efforts are made to assign the courses requested. Final course offerings will be determined by enrollment, scheduling, and budget constraints. The administration reserves the authority to alter any student's registration in order to best help the student secure courses as near his or her desires as possible. Students who have failed courses will have their registrations altered accordingly.

Prior to registration, Mrs. Hultman will meet with classes by grade level and review graduation requirements, new course offerings, College in the Schools (CIS) and Post Secondary Education (PSEO) opportunities, as well as answer any other questions that may arise regarding the registration process. Course registration is an important part of a student's education. Families are encouraged to discuss course selections and graduation requirements. If you have any questions or would like to set up an appointment with the principal or counselor, contact them at anytime.

We look forward to another exciting and productive year at MI-B!

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## **ENGLISH COURSES**

### **World Literature**

**Grade 10**

**Semester I and II, 1 credit**

This course will involve continued development of the English language. Oral and written skills are stressed through grammar and usage, composition, oral speaking and presentation skills. Students will be introduced to literature of the world which concentrates on literature and cultures from around the world as well as the reading of various novels. (MCCC 01058)

### **British Literature**

**Grades 11-12**

**Semester I and II, 1 credit**

This course will involve continued development of the English language. Oral and written skills are stressed through grammar and usage, composition, oral speaking and presentation skills. Students will be introduced to British literature which concentrates on literature of Great Britain as well as various novels. (MCCC 01058)

### **College Composition I (CIS)**

**Grades 11-12**

**Semester I, .5 credit  
4 college credits**

College Composition I is the first course in a two-course sequence designed to prepare students for writing across the disciplines in various rhetorical modes, which may include narration/description, example/illustration, problem analysis, comparison/contrast, and literary analysis. This course offers a multitude of writing situations and an environment that encourages each writer to develop his or her individual style and voice. Emphasis is on the steps in the writing process, including planning, prewriting, drafting, revision, and editing. Students will hone writing skills and work toward achieving an acceptable level of mechanical correctness on all final drafts. Library and online researching skills will be introduced as a preparation for further study in English and other disciplines.

### **College Composition II (CIS)**

**Grades 11-12**

**Semester II, .5 credit  
3 college credits**

A survey of the writings of American authors from 1865 to the present, Survey of American Literature II places special emphasis on literary works whose authors represent the cultural diversity of American society. Special attention is given to writers not normally represented in the literary canon, including female, Native-American, African-American, and immigrant authors. Readings include stories, plays, and poems within the context of United States' history, keeping a close eye on unequal power relations between groups as well as the ethnic, regional, and cultural diversity of American society.

### **Introduction to Communication (CIS)**

**Grades 11-12**

**Semester I & II, 1 credit  
3 college credits**

Introduction to Communication helps the student become a more efficient communicator in interpersonal and presentation situations. Students will explore the basic elements of interpersonal communication and public speaking. Interpersonal components include critical thinking, self-concept, perception, listening, verbal and nonverbal expression, relationships, and conflict management. Public speaking components include topic selection, research, organization, audience analysis, delivery, and critical listening. (NOTE: This is an English elective and not one of the four required English credits needed for MI-B's high school diploma)

**Journalism I or II****Grades 10-12****Semester I, .5 credit**

This course will introduce students to the many formats of communication through media. The class is divided into three main groups: creating the yearbook, video production with a green screen, and media/communications group. Depending upon the size of the class, seniority will take precedence over who will be in the yearbook group.

\*The yearbook group will plan, organize, and create the yearbook as well as lead the sales and marketing of the book

\*The video production group will learn how to create videos using a green screen and learn how to use the supporting technology and publish various digital media formats to the student body.

\*The media/communications group will experience the many forms of mass media communications through a variety of hands-on projects. Some of the projects will be digitally published to the student body.

Students in Journalism II will take on leadership roles such as editors, producers, and managers. (NOTE: This is an English elective and not one of the four required English credits needed for MI-B's high school diploma) (MCCC 11101)

(NOTE: This is an English elective and not one of the four required English credits needed for MI-B's high school diploma)

**Mass Media I or II****Grades 10-12****Semester II, .5 credit**

This course is a continuation of Journalism-semester one: experiencing the many formats of communication through media. Students will continue working on the school yearbook and ultimately the publication of the yearbooks. Students will work on advancing their knowledge from semester one by creating and publishing digital media.

\*The yearbook group will plan, organize, and create the yearbook as well as lead the sales and marketing of the book

\*The video production group will learn how to create videos using a green screen and learn how to use the supporting technology and publish various digital media formats to the student body.

\*The media/communications group will experience the many forms of mass media communications through a variety of hands-on projects. Some of the projects will be digitally published to the student Body.

Students in Mass Media II will take on leadership roles such as editors, producers, and managers. (NOTE: This is an English elective and not one of the four required English credits needed for MI-B's high school diploma) (MCCC 11101)

(NOTE: This is an English elective and not one of the four required English credits needed for MI-B's high school diploma)

**FINE ARTS COURSES****Visual Arts****Grades 10-12****Semester I and II, 1 credit**

Students will spend the fall semester working on painting. They will learn the basic techniques for using acrylic and watercolor. The spring semester will be focused on ceramics, using hand-building techniques to create original works of art. (MCCC 05157)

**Senior Band****Grades 9-12****Semester I and II, 1 credit**

Senior Band will allow students to continue to work on important concepts of good musicianship, such as intonation and balance, as well as experience music of different styles and forms. Senior band members will have opportunities to perform throughout the year, including concerts, contests, and pep band. Students will also have the opportunity to perform solos and ensembles at subsection and section music contests. Attendance and participation at ALL performances is MANDATORY. (MCCC 05101)

**Senior Choir****Grades 9-12****Semester I and II, 1 credit**

Senior choir gives students the opportunity to develop their vocal and aural skills through performance of various musical styles and forms. Choir members will have many opportunities to perform throughout the school year, including concerts, contests, graduation, as well as various community events. Students will also have the opportunity to perform solos and ensembles at subsection and section music contests. Attendance and participation at ALL performances is MANDATORY. (MCCC 05110)

**INDUSTRIAL TECHNOLOGY COURSES****Welding and Cutting****Grades 11-12****Semester I and II, 1 credit**

This course is designed to introduce the student to common Welding and Cutting practices used in industry. Safety and proper procedures are used as we discover SMAW (ARC), GMAW (MIG), GTAW (TIG), and Oxy-Fuel (GAS) Welding. Torch and Plasma Cutting will also be covered. (MCCC 13207)

**Small Gas Engines****Grades 9-12****Semester I and II, 1 credit**

Topics include shop safety, tool usage, parts identification, basic maintenance and repair. First, students will start and run a Briggs-and-Stratton motor to check for proper operation. Next, the engines are completely disassembled, make repairs and adjustments, and reassemble. Finally, we will start the engines and ensure that they are running smoothly. Students can bring in their own engines from home and work on them. (Students are not required to bring an engine from home. There are extra engines in the shop). As always, careers in the world of engine technology are explored. (MCCC 20110)

**Woodworking****Grades 9-12****Semester I and II, 1 credit**

This is an introduction to woodworking and it's endless uses in everyday life as a renewable resource. Students will safely construct their projects using a variety of tools and machines. The many careers in woodworking will be covered as well. (MCCC 13054)

**Advanced Woodworking****Grades 10-12****Semester I and II, 1 credit**

This is a continuation of Woods I. Students may choose to build several small projects or one large project. The many careers in woodworking will be covered as well. (MCCC 13054)

## **MATHEMATICS COURSES**

### **Geometry**

**Grades 10-12**

**Semester I and II, 1 credit**

Geometry is a rich environment in which students of mathematics can explore the relationships among points, lines, and planes in two and three dimensions. Topics covered include measurement, angles, lines, triangles, polygons, congruence, similarity, circles, area, volume, constructions, basic trigonometry, and a continuous review of basic algebra. Geometry and Algebra II courses may be taken during the same school year with mathematics department approval. (MCCC 02072)

\*Pre-requisite: Must have completed Algebra I with a passing grade or with teacher discretion.

### **Algebra II**

**Grades 10-12**

**Semester I and II, 1 credit**

Topics covered in this course will include: (1) linear functions and linear programming; (2) rational algebraic expressions; (3) the quadratic equation; (4) polynomial functions; and (5) trigonometric functions. Geometry and Algebra II courses may be taken during the same school year with mathematics department approval. (MCCC 02143)

\*Pre-requisite: Must have completed Algebra I with a passing grade.

### **Algebra II Concepts**

**Grades 10-12**

**Semester I and II, 1 credit**

This is a second year Algebra course. Emphasis is placed on mathematical structure, number systems and their properties. It will cover topics in Linear Algebra, Quadratics, Polynomials, Rational Functions, Matrices, Exponential and Logarithmic Functions, Analytic Geometry, Complex Numbers, Sequences and Series, and Probability and Statistics. (MCCC 02121)

### **Math for Business**

**Grades 10-12**

**Semester I, .5 credit**

This course **introduces students to the mathematical concepts and applications necessary for successful business careers**. Topics will include finance charges, cash discounts, commissions, payroll, tax deductions, simple and compound interest, net present value. Students will get the opportunity to create, sell, and determine the net profit of a product. (MCCC 02157)

### **Personal Finance**

**Grades 10-12**

**Semester II, .5 credit**

Personal finance is designed to help students understand the impact of individual choices on occupational goals and future earning potential. Topics covered will include income, insurance, money management, spending and credit, as well as saving and investing. (MCCC 02152)

### **College Algebra (CIS)**

**Grades 11-12**

**Semester I, .5 credit**

**3 college credits**

College Algebra emphasizes the concepts of functions and solving equations. The course focuses on, linear, quadratic, polynomial, rational, radical, exponential, logarithmic, and inverse functions and their graphs.

**Trigonometry (CIS)****Grades 11-12****Semester II, .5 credit  
2 college credits**

This course consists of right triangle trigonometry, laws of sines and cosines, applications, trigonometric identities, and graphing. Identifying and graphing conic sections and solving nonlinear systems are also included.

**PHYSICAL EDUCATION AND HEALTH COURSES****Team Sports****Grades 11-12****Semester I and II, 1 credit**

Students will experience sports they can participate in for a lifetime. Throughout the year, the class will take a variety of field trips for hands on learning. Students will learn and participate in weight training, skiing, curling, tennis, badminton, fishing, cycling, bowling, swimming, broomball, skating, softball, and many other activities. (MCCC 08003)

**SCIENCE COURSES****Biology****Grade 10****Semester I and II, 1 credit**

The aim of this course is to provide students with a background in biological science. Emphasis will be on cell biology, genetics, evolution, ecological systems and the human body. There will be an opportunity for lab work and dissections. \*Prerequisite: Successfully completed science 7-9 (MCCC 03051)

**Environmental Science (CIS)****Grades 10-12****Semester I and II, 1 credit  
4 college credits**

(Description taken from Vermilion Community College Course Catalog) This course is an introduction to basic characteristics of the natural world and an exploration of how natural systems affect and are affected by the social and technological human environment. Students will examine the environmental consequences of selected lifestyle choices in practical and simulated experiences outside of class. Prerequisite(s): READ 0092 or placement above, and MATH 0092

**Forensic Science****Grades 10-12****Semester I and II, 1 credit**

Forensic Science will teach you how to use the scientific method to solve problems. There will be activities throughout the year to learn observational skills, how to collect evidence, compare evidence on the microscopic level, collect fingerprints and DNA evidence, measure dates of life bones and body evidence, ballistics and solving a fictitious case based on the skills you have gained. (MCCC 03204)

**Chemistry****Grades 11-12****Semester I and II, 1 credit**

This course is designed to prepare students for chemistry in college. It will include the study of matter in its phases on Earth, the Periodic Table, writing and balancing equations, mass relationships, stoichiometry, gas laws, and other associated chemistry topics. This course uses math skills similar to those learned in Algebra II. (MCCC 03101)



**Forest Field Skills****Grades 11-12****Semester I, .5 credit**

The following will be covered: forest inventory & data compilation, MN tree species & disease identification, invasive species, succession, fire, soils, old growth forests, and forestry careers. Students will spend several afternoons at the school forest doing tree inventory. (MCCC 18502)

**Intro to Astronomy (CIS)****Grades 11-12****Semester II, .5 credit  
3 college credits**

Foster an appreciation for the nature of our place in the universe as we investigate the science of modern astronomy. A wide variety of topics are explored, not limited to Earth-Moon-Sun Relationships, Planetary, Stellar, Galactic and Cosmological astronomy. Some laboratory sessions will be scheduled as evening activities. Concepts are addressed within the context of the scientific method.

**SOCIAL STUDIES COURSES****World History****Grade 10****Semester I and II, 1 credit**

A required general survey course that starts with the beginnings of humankind and will conclude with the end of the 20th Century. We will survey significant civilizations, events, and people that have shaped how we live today. We will look for unique features as well as commonalities that make up the human condition and the human experience. (MCCC 04051)

**Economics****Grades 11-12****Semester I, .5 credit**

Students will understand what economics is, how it plays a part in their daily lives, and how it affects the world around them. In addition, students also gain some insight into how to manage their money wisely by learning about topics like financial planning, budgeting, and investing. They will use critical thinking skills while learning how to make reasoned economic decisions.

**American Government****Grades 11-12****Semester II, .5 credit**

In Government, the focus is on the principles and beliefs upon which the United States was founded and on the structure, functions, and powers of government at the national, state, and local levels. Students learn major political ideas and forms of government in history. A significant focus of the course is on the U.S. Constitution, its underlying principles and ideas, and the form of government it created. Students analyze major concepts of republicanism, federalism, checks and balances, separation of powers, popular sovereignty, and individual rights and compare the U.S. system of government with other political systems.

**European History I (CIS)****Grades 11-12****Semester I, .5 credit  
3 college credits**

This course surveys European history from ancient times to the Renaissance. The events of this era are examined from political, economic, military, and social perspectives.

**European History II (CIS)****Grades 11-12****Semester II, .5 credit  
3 college credits**

This course presents an overview of European history from 1500 to the present, with an emphasis on political, social, and cultural developments. Topics include the Reformation, Europe advances, the Enlightenment and the age of science, absolutism and the rise of nation-states, the French Revolution and Napoleonic era, the Industrial Revolution, national revolutions, emergence of nation states, late nineteenth century imperialism, World War I, the Great Depression, World War II and its aftermath, the Cold War, and post-Cold War Europe.

**STEM COURSES****Engineering Design I****Grades 9-12****Semester I & II, 1 credit**

Engineering I follows the PLTW based curriculum. In Engineering I, Introduction to Engineering Design, you will learn how engineers apply a design process to solve real-world problems. You will work individually and as a member of collaborative teams to apply math, science, and a variety of engineering tools, including 3D modeling software, to design, document, and communicate your engineering work. In Engineering I, Aerospace Engineering, you will explore the fundamentals of air and space flight and orbital mechanics. You'll apply what you learned to design components of flight systems including an airfoil, a propulsion system, and a rocket as well as learning to fly on our flight simulators.

**Engineering Design II****Grades 10-12****Semester I & II, 1 credit**

Engineering II follows the PLTW based curriculum. In Engineering II, Computer Science Principles (CSP) course, you will explore computational thinking as you program using Python. You will gain an understanding of programming through hands-on activities, projects, and problems that are reflective of real-world challenges

**WORLD LANGUAGE COURSES****Spanish I****Grades 9-12****Semester I and II, 1 credit**

Spanish I is an introduction to the language and culture of the Spanish-speaking world. This course is designed to help learners acquire the knowledge of a second language by utilizing the four skills of reading, writing, listening, and speaking. Development of these four skills will occur in curriculum that emphasizes role-playing games, educational videos, crafts, and plenty of work on oral efficiency. Active participation, regular class attendance, and daily practice are the keys to success in this course and are therefore, strongly encouraged. (MCCC 06101)

**Spanish II****Grades 10-12****Semester I and II, 1 credit**

Spanish II is designed for those students who have successfully completed Spanish I. Emphasis will continue on growth in listening, writing, reading, and speaking in the target language. The instruction of this class will involve a variety of learning activities including singing, role-playing, arts & crafts, and games. Active participation is required throughout the year to grasp further knowledge of the language. Regular class attendance and daily practice are keys to success in this course and are therefore, strongly encouraged. (MCCC 06102)

## **VOCATIONAL COURSES**

### **Food Occupations I**

**Grades 11-12**

**Semester I & II 2 credits**

Designed for those who are interested in the Food Service Industry. Activity centers around our student run restaurant, "The Ranger Rock Cafe, which is open to MIB faculty/staff and the public (as well as catering for events such as banquets and meetings). Included are basic food handling and safety techniques, food production, cost control methods, operation of commercial food service equipment, and customer service. Future jobs/career paths include Chef, Short-order cook, Food-Preparation Worker, Waiter/Waitress, Host/Hostess, Food Service Management, or Restaurant Owner. Check out our website: [www.foodocc.com](http://www.foodocc.com) (MCCC 16051)

### **Food Occupations II**

**Grades 12**

**Semester I & II, 2 credits**

Designed for those students who want to continue their Food Occ experience. You will be responsible for assisting Food Occ I students during labs, as a station manager when the restaurant is open and weekly specials. Students in Food Occ. II will be required to take a vocational assessment, the Serve Safe Food Handler Exam. Upon passing students will earn a national certificate. (MCCC 16055)

Pre-requisite: 3.0 or above final grade in Food Occ I, the ability to work independently. (MCCC 1652)

### **Nursing Assistant**

**Grades 11-12 (2 Hour Block/Fall Semester) 2 credit**

**(6 College credits)**

**@ Mesabi Range – Eveleth Campus**

#### **\*Nursing Assistant (NUNA 1215) (4 College Credits)**

This course covers the introductory skills of nursing. Some units of instruction include: providing personal care, assisting with nutrition, measuring vital signs, understanding mental health and social service needs, and caring for a client with special equipment and/or procedures. The course teaches the student to perform these skills in a long term facility or in a home environment. Instruction is provided through lectures with either video or instructor demonstration of nursing skills. The goal of this course is that the student will be proficient in all the introductory skills of nursing and will be able to provide safe care in healthcare settings. Upon successful completion of the course, the student will be eligible to take the State licensing exam for Certified Nursing Assistant/Home Health Aide. This course is a pre-requisite for LPN and RN programs.

#### **\*Responding to Emergencies (HLTH 1657) (2 College Credits)**

This course prepares the student to assess and make appropriate decisions regarding first aid care in accidents and sudden emergencies. Upon successful completion, the student will receive American Red Cross certification in Responding to Emergencies and in Adult CPR.

### **First Responder**

**Grades 11-12**

**(2 Hour Block/Spring Semester) 2 credit**

**(5 College credits)**

**@ Mesabi Range – Eveleth Campus**

#### **\*First Responder (HLTH 1655) (includes Healthcare CPR) (3 college credits)**

This course teaches the skills of First Responder needs to act as a crucial link in the emergency medical services system. Upon successful completion, the student shall receive American Red Cross certification in Responding to Emergencies and certification in Community CPR.

