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COMPREHENSIVE HIGH SCHOOL PROGRAM

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CAREER CENTER PROGRAMS

COMMUNICATION ARTS-ENGLISH

English Language Arts
The English program in Billings Public Schools concentrates on developing and refining students' skills in the areas of reading; writing; speaking and listening; language; and media and technology. The goal of the district's English program is to prepare students for entry-level, credit-bearing academic and college courses and/or for entry into the workforce. To that end, students complete coursework that helps them progress through increasingly complex literature and informational texts. Writing instruction focuses on developing the student's ability to develop and support logical arguments, to conduct and present research, to compose authentic narratives, and to inform and explain through written communication. In order to develop their reading and writing skills, students will participate in speaking and listening opportunities, grow their vocabularies, and hone their understanding and use of mechanics and conventions. Media and technology play an important role in this instruction, so the students will continue to develop skills related to the use of media and technology.

When it comes to text selection, the study of literature and informational texts provides the springboard for thoughtful analysis, for discussion, and for writing in various modes. Providing students a cross section of texts, including a strong core of literary classics, promotes students' understanding of their literary heritage and culture, which provides for a universal base in the English language. Honors courses at each level give students the opportunity to stretch their learning by choosing more rigorous academic challenges. Similarly, elective courses at the senior level provide opportunities for students to choose courses according to their college and career aspirations and/or their individual reading preferences.

Required readings are a part of our district curriculum. Objections to assigned reading should be brought to the attention of the teacher as alternate assignments may be available. However, alternative assignments will not be available in Advanced Placement English.

The Advanced Placement English Literature curriculum is subject to the approval of the College Board and is intended to provide students with a rigorous academic experience that prepares them for college-level reading, writing, and discussions. As stated by the College Board, "Issues that might, from a specific cultural viewpoint, be considered controversial, including references to ethnicities, nationalities, religions, races, dialect, gender, or class, are often represented artistically in works of literature […] Advanced Placement students should have the maturity, the skill and the will to seek the larger meaning [of texts'." Therefore, alternative readings will not be made available; however, alternative courses are available for senior English class credit.

9th Grade English Essential Requirements

Semester 1 Standards

Required Reading Standards for Literature and Informational Texts

- Required Reading:
  Collection 1: Conversation
  Collection 2: Writing
  Collection 3: Reading
  Collection 4: Sources
  To Kill a Mockingbird
  Grade-level approved Indian Education for all text(s) or anthology selection(s)
  Selections from the following:
  Collection 5: Fiction (*workshop 1-Essential Elements of Fiction)*
  Collection 6: Argument
- Additional Reading Selections:
  Grade-level approved novels and texts from the School District 2 Literature List

Required Standards for Writing:

- Write routinely over shorter time frames to improve specific writing skills, practice text-based analysis, and/or improve college-career readiness
- Write a multi-paragraph argumentative paper incorporating planning and revising/gathering evidence
- Write timed writing responses in preparation for standardized testing

Required Standards for Speaking and Listening:

- Participate in small and large group discussions
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and actively incorporate others.
- Use multiple types of information (e.g. audio-visual, textual, photographic, etc.)
- Evaluate a speech (e.g. TED Talks, “Gettysburg Address,” etc) for concepts such as tone, audience, point of view, credibility, logical fallacies, evidence distortions, etc.

Required Standards for Language:

- Study vocabulary for context, reference, and academic understanding
- Apply standard English grammar and conventions
- Write and edit work to conform to the guidelines in a style manual (e.g. MLA)
- Review figures of speech
- Review parts of speech
  *Adjective and adverb, misplaced and dangling modifiers, pronouns (identification, person, and number)
- Use of parallel structure
- Review capitalization

Semester 2 Standards

Required Reading Standards for Literature and Informational Texts

- Required Reading
  Review Collection 4: Sources
  Collection 10: Drama (*Romeo and Juliet*)
  Selections from the following:
  Collection 7: Poetry
  Collection 8: Expository
  Collection 11: Mythology
- Additional Reading Selections:
  Collection 9: Narration
  Grade-level approved novels and texts from the School District 2 Literature List

Required Standards for Writing:

- Write routinely over shorter time frames to improve specific writing skills, practice text-based analysis, and/or improve college-career readiness
- Write a multi-paragraph technical piece
- Write timed writing responses (district writing assessment)
- Write an evidence-based, multi-paragraph informative/explanatory paper incorporating planning and revising/gathering evidence

Required Standards for Speaking and Listening:

- Participate in small and large group discussions
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and incorporate others
- Use multiple types of information (e.g. audio-visual, textual, photographic, etc.)
- Evaluate a speech (e.g. TED Talks, “Gettysburg Address,” etc) for concepts such as tone, audience, point of view, credibility, logical fallacies, evidence distortions, etc.
- Present research using digital media to enhance and add interest (using technical writing skills)

Required Standards for Language:

- Study vocabulary for context, reference, and academic understanding
- Apply standard English grammar and conventions
- Write and edit work to conform to the guidelines in a style manual (e.g. MLA)
- Use semicolons and colons
- Study active and passive voice
- Study comma splices and run-on sentences
- Study pronoun-antecedent agreement
- Study fragments
- Study verb (form, tense, and agreement)

+English 1	Credits 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: + English 1 is a remedial English program. It is governed by the student's IEP and focuses on improving skills in reading and writing.

Prerequisite Courses: None

Applies toward graduation requirements of: 4 English credits

English 1	Credits 1	9
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: English 1 is required of every freshman student who is not enrolled in Honors English 1.

Prerequisite Courses: None

Applies toward graduation requirements of: 4 English credits

Honors English 1	Credits 1	9
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Honors English 1 is a differentiated curriculum designed for students who are prepared to tackle rigorous academic challenges. Placement for Honors English 1 takes into consideration achievement information from standardized reading and language tests given in grades 7 and 8, teachers' recommendations, grade 8 English grades, completion of summer reading assignments, satisfactory performances on writing assessments, and a student's willingness to accept the challenge of this Honors English course.

Prerequisite Courses: Meet placement criteria

Applies towards graduation requirements of: 4 English credits

Reading Foundations	Credits 1	9, 10
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This class is a required literacy intervention for students scoring below proficiency in reading on the NWEA tests or on any of two or more other achievement indicators. Minimum national percentile requirements must be met in order to exit. Students not meeting the 9th grade exit requirements will enroll in a reading class as sophomores.

Prerequisite Courses: Meet placement criteria
Applies toward graduation requirements of: 7 Elective credit

10th Grade English Essential Requirements

Semester 1 Standards

Required Reading Standards for Literature and Informational Texts

- Required Reading:
  Bedford Text Unit 2
  Bedford Text Unit 3
  Bedford Text Unit 4
  Bedford Text Unit 6-*Macbeth*
  One additional text from the approved School District 2 Literature List
- Additional Reading Selections:
  Bedford Text Unit 1
  Grade-level approved novels and texts from the School District 2 Literature List

Required Standards for Writing:

- Write routinely over shorter time frames to improve specific writing skills, practice text-based analysis and/or improve college-career readiness
- Write an evidence-based, multi-paragraph informative/explanatory paper on a literary work incorporating planning and revising/gathering evidence using appropriate argumentative skills
- Write timed writing responses in preparation for standardized testing

Required Standards for Speaking and Listening:

- Participate in small and large group discussions.
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and actively incorporate others
- Participate in large group debate
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and actively incorporate others into the debate
- Evaluate a speech (e.g. TED Talks, “Gettysburg Address,” etc.) for concepts such as tone, audience, point of view, credibility, logical fallacies, evidence distortion, etc.

Required Standards for Language:

- Study vocabulary for context, reference, and academic understanding
- Apply standard English grammar and conventions
- Write and edit work to conform to the guidelines in a style manual (e.g. MLA)
- Use various types of clauses (independent, dependent; noun, relative, adverbial) and phrases (noun, verb, adjectival, participial, prepositional, absolute) to convey specific meaning
- Use semicolons and conjunctive adverbs correctly
- Use etymyology to determine a word’s precise meaning and usage (e.g Greek and Latin roots)

Semester 2 Standards

Required Reading Standards for Literature and Informational Texts

- Required Reading
  IEFA text *Wind from an Enemy Sky or The Absolutely True Diary of a Part-Time Indian Night*
  Bedford Text Unit 5
  Bedford Text Unit 6 (p.399-409 - argumentative writing)
  Bedford Text Unit 7
- Additional Reading Selections:
  Bedford Text Unit 8
  Bedford Text Unit 9
  Bedford Text Unit 10
  Grade-level approved novels and texts from the School District 2 Literature List

Required Standards for Writing:

- Write routinely over shorter time frames to improve specific writing skills, practice text-based analysis and/or improve college-career readiness
- Write timed writing responses in preparation for standardized testing
- Write a multi-paragraph argumentative paper incorporating planning and revising/gathering evidence
- Write an annotated bibliography

Required Standards for Speaking and Listening:

- Participate in small and large group discussions
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and incorporate others
- Participate in large group debate
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and actively incorporate others into the debate
- Present research using multiple types of information (e.g. digital media, audio-visual, textual, photographic, etc) to enhance and add interest (using technical writing skills such as concise text, bullet points, etc.)
- Evaluate peer presentations for tone, audience, point of view, credibility, logical fallacies, evidence distortion, etc.

Required Standards for Language:

- Study vocabulary for context, reference, and academic understanding
- Apply standard English grammar and conventions
- Write and edit work to conform to the guidelines in a style manual (e.g. MLA)
- Use parallel structure for clauses
- Use a colon to introduce a quotation
- Interpret figures of speech (e.g. euphemism, oxymoron) and analyze their roles
- Recognize and use domain-specific words accurately

+English 2	Credits 1	10
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: +English 2 is a remedial English program. It is governed by the student's IEP and focuses on improving skills in reading and writing.

Prerequisite Courses: None

Applies toward graduation requirements of: 4 English credits

English 2	Credits 1	10
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: English 2 is required of every sophomore student who is not enrolled in an Honors English 2.

Prerequisite Courses: None

Applies toward graduation requirements of: 4 English credits

Honors English 2	Credits 1	10
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Honors English 2 is a differentiated curriculum developed for students who are prepared to tackle rigorous academic challenges. In addition to the students' willingness to accept the challenge of this Honors English course, placement for Honors English 2 requires successful completion of Honors English 1, teacher recommendation, exemplary completion of previous English classes, completion of summer reading assignments, and/or submission of a writing sample.

Prerequisite Courses: 1 credit in a freshman English course and meet placement criteria.

Applies toward graduation requirements of: 4 English credit

11th Grade English Essential Requirements

Semester 1 Standards	Semester 2 Standards

Required Reading Standards for Literature and Informational Texts: (Early American Writing-1920)

- Required Reading
  **The Great Gatsby*
  Selections from the following:
  *Holt Anthology Unit (*The Crucible*)
  *Holt Anthology Unit 2
  *Holt Anthology Unit 3
  *Holt Anthology Unit 4
  *Holt Anthology Unit 5
- Additional Reading Selections:
  Grade-level approved novels and texts from the School District 2 Literature List

Required Standards for Writing:

- Write routinely over shorter time frames to improve specific writing skills, practice text-based analysis and/or improve college-career readiness
- Write a multi-paragraph argumentative paper incorporating planning and revising/gathering evidence
- Write timed writing responses in preparation for standardized testing

Required Standards for Speaking and Listening:

- Initiate and participate in small and large group discussions
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and actively incorporate others
- Resolve contradiction in small and large group discussions when possible and determine what additional information is required to deepen discussion

Required Standards for Language:

- Apply standard English grammar and conventions
- Write and edit work to conform to the guidelines in a style manual (e.g. MLA) appropriate for the discipline and writing type
- Observe hyphenation

Required Reading Standards for Literature and Informational Texts: (1930-Present)

- Required Reading
  *IEFA text *A Yellow Raft in Blue Water, The Way to Rainy Mountain, or Truth and Bright Water*
  *One additional text from the approved School District 2 Literature List
- Additional Reading Selections:
  *Holt Anthology Unit 6
  *Holt Anthology Unit 7
  Grade-level approved novels and texts from the School District 2 Literature List

Required Standards for Writing:

- Write routinely over shorter time frames to improve specific writing skills, practice text-based analysis and/or improve college-career readiness
- Write timed writing responses in preparation for standardized testing
- Write a 4-8 page research paper incorporating planning and revising/gathering evidence

Required Standards for Speaking and Listening:

- Initiate and participate in small and large group discussions
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and actively incorporate others
- Present research during the research process for peer review or after the research process to culminate
  *Use digital media to enhance and add interest (using technical writing skills)
- Evaluate peer presentations for supporting evidence, logical organization, viewpoints, development, substance, style

Required Standards for Language:

- Apply standard English grammar and conventions
- Write and edit work to conform to the guidelines in a style manual (e.g. MLA) appropriate for the discipline and writing type

+ English 3	Credits 1	11
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: +English 3 is a remedial English program. It is governed by the student's IEP and focuses on improving skills in reading and writing.

Prerequisite Courses: None
Applies toward graduation requirements of: 4 English credit

US Lit/US History Block	Credits 1-English Credit 1 - Social Studies	11
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The combination of American History and American Literature follows the curriculum and essential requirements currently established and approved by Billings Public Schools for English 3 and United States History. This American Studies approach encourages the students to appreciate and understand the links between the past events and the literature about and by those who experienced these events. As a result, students have the opportunity to examine complementary literary genres and historical periods in this unique course. Those who enroll in this block course are required to take both sections of the literature and history block both semesters.

TWO –HOUR BLOCK

Prerequisite Courses: 1 credit in a sophomore English course.
Applies toward graduation requirements of: 4 English credits, 3 Social Studies credits

English 3	Credits 1	11
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: English 3 is required of every junior student who is not enrolled in AP English Language and Composition or US Lit/US History Block.

Prerequisite Courses: None
Applies toward graduation requirements of: 4 English credits

AP English Language & Composition	**Credit 1**	**11**
Course Name	**Semester 1 & 2**	**Grade Level**

Per the *AP English Language and Composition Course Overview*, “The course cultivates reading and writing skills that students need for college success and for intellectually responsible civic engagement. The course guides students in becoming curious, critical, and responsive readers of diverse texts, becoming flexible, reflective writers of texts addressed to diverse audiences for diverse purposes...The reading and writing students do in the course deepen and expand their understanding of various formal and informal genres. Reading and writing activities in the course also deepen students’ knowledge and control of formal conventions of written language.”

This course focuses on rhetorical analysis and argument and is structured around the global idea of Ethics and Morality. Aside from the assigned summer reading of F. Scott Fitzgerald’s novel *The Great Gatsby*, the texts chosen for the course will be predominantly nonfiction. The reading selections will teach students to think and read critically and will also serve as models of academic and professional writing.

Prerequisite Courses: None

Applies toward graduation requirements of: 4 English credits

12th Grade English Essential Requirements

Semester 1 Standards

Required Reading Standards for Literature and Informational Texts:

- Required Reading:
  Selections from the following:
  Making Literature Matter Chapter 4
  Making Literature Matter Chapter 6
- IEFA Selections:
  Fools Crow
  The Round House
  The Lakota Way
  The Broken Cord
  Other selections from Native American Anthologies
- Additional Resources:
  Making Literature Matter Chapter 1
  Making Literature Matter Chapter 3
  Making Literature Matter Chapter 5
  Grade-level approved novels and texts from the School District 2 Literature List

Required Standards for Writing:

- Write routinely over shorter time frames to improve specific writing skills, practice text-based analysis and/or improve college-career readiness
- Write a 4-8 page research paper incorporating planning and revising/gathering evidence

Required Standards for Speaking and Listening:

- Initiate and participate in small and large group discussions
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and actively incorporate others
- Present research during the research process for peer review or after the research process to culminate
  *Use digital media to enhance and add interest (using technical writing skills)
- Evaluate peer presentations for supporting evidence, logical organization, viewpoints, development, substance, style

Required Standards for Language:

- Apply standard English grammar and conventions
- Write and edit work to conform to the guidelines in a style manual (e.g. MLA) appropriate for the discipline and writing type
- Observe hyphenation

Semester 2 Standards

Required Reading Standards for Literature and Informational Texts:

- Required Reading:
  A work from Shakespeare (excluding 9th and 10th grade anchor texts)
  Selections from the following:
  Making Literature Matter Chapter 2
  Making Literature Matter Chapter 7
  Selections according to the elective:
  Making Literature Matter Chapter 8
  Making Literature Matter Chapter 9
  Making Literature Matter Chapter 10
  Making Literature Matter Chapter 11
  Making Literature Matter Chapter 12
- Available Resources:
  Grade-level approved novels and texts from the School District 2 Literature List

Required Standards for Writing:

- Write routinely over shorter time frames to improve specific writing skills, practice text-based analysis and/or improve college-career readiness
- Write a narrative (500 words minimum) incorporating planning and revising

Required Standards for Speaking and Listening:

- Initiate and participate in small and large group discussions
  *Pose and respond to questions clarifying, verifying, and challenging ideas and conclusions
  *Respond thoughtfully to diverse perspectives and actively incorporate others
- Present a reflective speech using media to enhance and add interest (e.g. academic portfolio, life lessons, transformative experience, etc.

Required Standards for Language:

- Apply standard English grammar and conventions
- Write and edit work to conform to the guidelines in a style manual (e.g. MLA) appropriate for the discipline and writing type

12

+English 4	**Credit 1**	
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: +English 4 is a remedial English program. It is governed by the student's IEP and focuses on improving skills in reading and writing.

Prerequisite Courses: None

Applies toward graduation requirements of: 4 English credits

AP English Literature	**Credit 1**	**12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Advanced Placement English Literature is a college-level course that prepares students to take the AP English Literature and Composition Exam. As the College Board's description for this course states, AP English Literature "engages students in the careful reading and critical analysis of imaginative literature," and students in the course hone the skills necessary to read challenging texts and to write clearly, coherently, and persuasively. In addition to the students' willingness to accept the challenge of this AP English course, placement for AP English requires successful completion of previous Honors English courses, teacher recommendation, exemplary completion of previous English classes, and/or submission of a writing sample. The course may require the purchase of some paperback materials, and it does require the completion of a summer reading assignment.

- **Alternative readings are not available for this course.**

Prerequisite Courses: 1 credit in a junior English course

Applies toward graduation requirements of: 4 English credits

English 4	**Credit 1**	**12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: English 4 is required of every senior student not enrolled in another equivalent senior year English course. The focus is on college and career readiness skills.

Prerequisite Courses: None

Applies toward graduation requirements of: 4 English credits

Contemporary Literature	Credit 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Students will study a variety of cross-cultural texts from the mid-20th and 21st centuries in order to become familiar with differing world viewpoints and perspectives. Students will study texts and literature in order to gain understanding and be able to make connections to the world in which they live as well as find meaning in the connections they make. Selected novels will be read and analyzed. Short stories, plays, and other fiction and non-fiction works will be explored. Emphasis will be placed on gaining knowledge to connect aspects of the works they read with other texts/pieces with which they are already familiar and those pieces they read during the course of the class. All writing and reading requirements of first semester English 12 will be included in this course.

Prerequisite Courses: 1 credit in a junior English course

Applies toward graduation requirements of: 4 English credits

College Writing/English 4	Credits 1 (½ Each Semester) 3 Credits @ City College/MSU-B and MSU-B	12
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: This course covers the Billings Public Schools English 4 curriculum and integrates and provides instruction in writing competencies expected of college students. It pays special attention to writing as a problem-solving process, patterns of organization in personal and informative writing, and logical thinking and style in argumentative/persuasive writing. Students are immersed in the writer's workshop classroom model through writing and responding to writing (their own and from other authors) on a daily basis. It is the equivalent to Writing 101 which is offered at City College at MSU-Billings and MSU-Billings. This is a concurrent enrollment course and students will be required to test into it in order to receive college credit. Other requirements may apply. Please contact your counselor for additional information.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

City College/MSU Billings and MSU Billings: 3 credits in WRIT 101 will be issued to students who pass the College Writing/English 4 class and complete all WRIT 101 competencies.

Prerequisite Course: Successful completion of English 3
Qualifying score on either the Accuplacer Exam or the ACT

Applies toward graduation requirements of: 4 English Credits

HEALTH ENHANCEMENT

All students need to take one credit in Health Enhancement 1 to graduate.
Students may take additional Health Enhancement classes from the following:

Activities
9, 10, 11, 12

****Fitness Conditioning**
9, 10, 11, 12

****Weight Training**
9, 10, 11, 12

Advanced Activities
11, 12

****Community Fitness**
11, 12

Introduction to Officiating and Coaching Youth Sports
11, 12

Lifetime Skills
11, 12

Sports Medicine
11, 12

Unified Physical Education
Reg. Ed. 10, 11, 12
****Spec. Ed. 9, 10, 11, 12**

**** Indicates a course that can be taken more than once for credit**

Health Enhancement 1	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Health Enhancement 1 is a two semester course which meets daily and combines the delivery of health education into one curriculum which emphasizes health, fitness, wellness and social responsibility. This course includes all of the components of a comprehensive Health Education Curriculum and those of Physical Education.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Health Enhancement credit

Activities	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Activities is a one semester elective course offered at the freshman and sophomore year. This course was designed as an *introduction* to individual and team sports emphasizing sportsmanship and enhancing the concepts of working cooperatively as a group. Students will also develop goals related to personal fitness and lifelong health.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective Credits

Fitness Conditioning	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Through the basic concepts of strength and cardiovascular conditioning, the students learn the importance of lifetime fitness as they assess their own fitness levels, develop personal fitness goals, and monitor their progress. This course is designed for students who want to develop personal weight/fitness goals.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective credits

Weight Training	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course offers students the opportunity to develop a higher level of aerobic fitness and strength necessary for competing in high school athletics. The students will learn and develop several techniques used to improve athletic skill, strength and flexibility. With the use of free weights, plyometerics, agility and cardiovascular exercises, students will enhance their basic and skill related fitness components. This course is extremely demanding with mandatory attendance, participation and effort. Proper clothing is a daily requirement.

Prerequisite Courses: None
Applies toward graduation requirements of: 7 Elective credits

Advanced Activities	**Credit 1/2**	**11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Advanced Activities is a one semester elective course offered at the junior and senior year. The curriculum is designed to explore and expand team and dual sports emphasizing sportsmanship and enhancing the concepts of working cooperatively as a group. Students will also develop goals related to personal fitness and lifelong health. This class may meet off campus two to three times per week.

Prerequisite Courses: Health Enhancement 1
Applies toward graduation requirements of: 7 Elective credits. *Students must provide own transportation. A fee may be required.*

Community Fitness	**Credit 1/2**	**11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This is a semester long course which meets 2-5 times a week off campus and combines a variety of fitness and exercise components. Students learn the importance of lifetime fitness as they assess their own fitness levels, develop personal fitness goals, and monitor their progress.

Prerequisite Courses: Health Enhancement 1
Applies toward graduation requirements of: 7 Elective credits. *Students must provide own transportation. fee may be required.*

Introduction to Officiating And Coaching Youth Sports	**Credit 1/2**	**11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course is designed to teach students the basics of officiating and/or coaching sports. Students will learn basic concepts of officiating associated with learning how to become a beginning MOA official. This class will include classroom, lab and hands on sessions with active MOA officials from the community.

Prerequisite Courses: Health Enhancement
Applies toward graduation requirements of: 7 Elective credits

Lifetime Skills	**Credit 1/2**	**11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Lifetime Skills is a one semester course for elective credit offered at the junior and senior year. The curriculum is designed to explore and expand leisure activities with a goal of developing overall health and fitness personal goals. This class may meet off campus two to three times per week.

Prerequisite Courses: Health Enhancement 1

Applies toward graduation requirements of: 7 Elective credits. *Students must provide own transportation. Fee may be required.*

Sports Medicine	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course is designed to teach the student basic human anatomy, physiology and kinesiology as it relates to exercise and athletics. Students will learn basic concepts of injury prevention, recognition and rehabilitation as well as conditioning and athletic nutrition. The course is based on a lecture/discussion format and will include hands-on laboratory sessions with periodic professional speakers from the field of sports medicine. This course helps prepare students to be trainers within the high school athletic programs.

Prerequisite Courses: Health Enhancement 1

Applies toward graduation requirements of: 7 Elective credits

Unified Physical Education (Skyview only)	Credit 1/2	Reg. Ed. 10, 11, 12 Spec. Ed. 9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

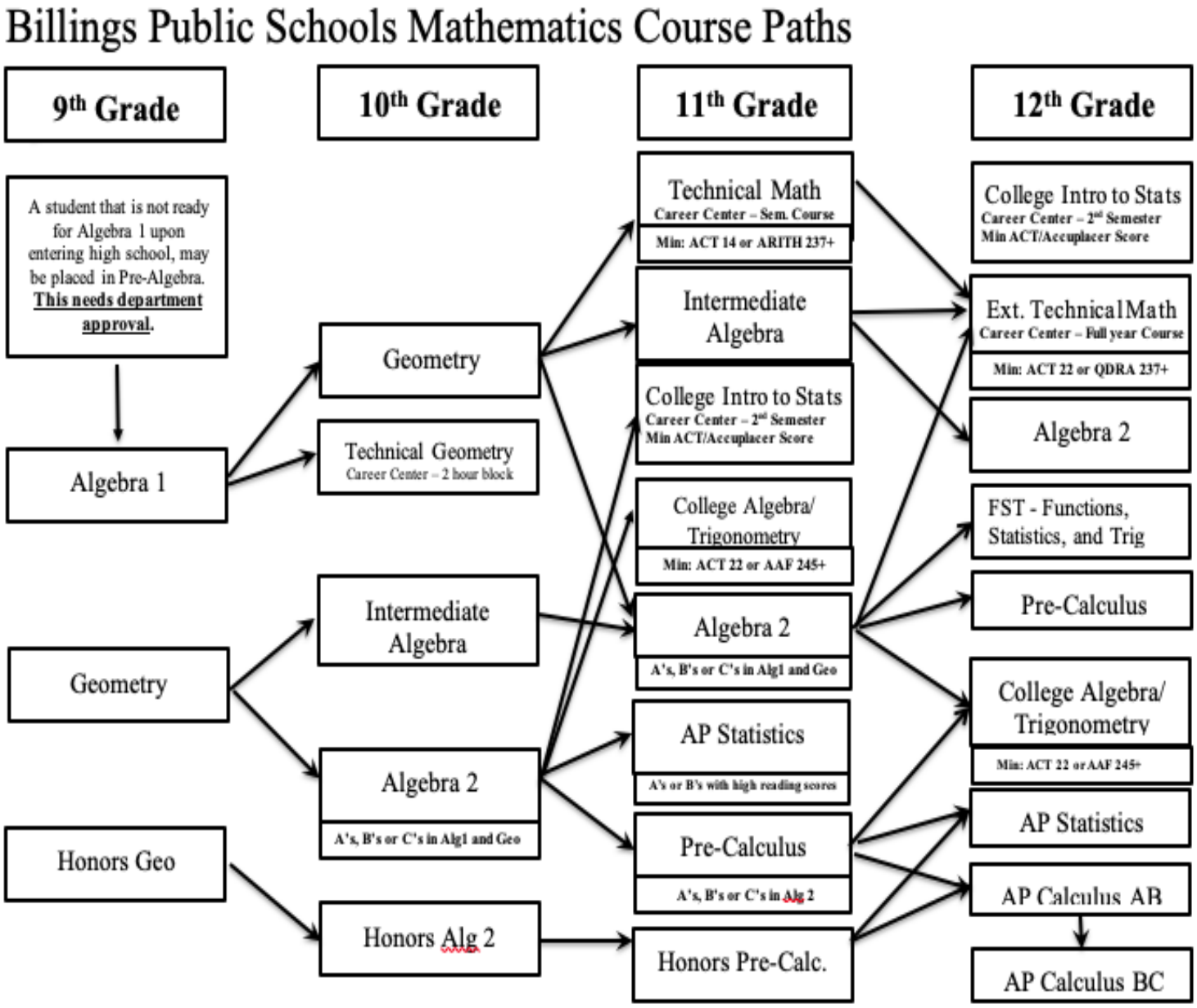
Course Description: The Unified PE course brings together students with and without disabilities for physical activities and sports, with the goal of enhancing the physical, intellectual, and social growth of all. The class focuses on increasing physical fitness and sport-specific skills, rules, and strategies. It also reinforces positive habits and reasoning to make better health and lifestyle choices. Students will work to increase competence and confidence in a variety of physical activities. The teacher will facilitate a learning atmosphere in which typically developing peers learn to better understand their classmates' needs and learn to find creative ways to adapt instruction. This class naturally fosters new friendships among the Unified PE classmates and promotes students' leadership and social competencies. In Unified PE, individualism and inclusion naturally coexist. The environment is rich in encouragement, trust, and lasting friendships.

Regular education students can only take one time or are required instructor approvals. Special education students may take the course multiple times.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective Credits

MATH


Billings Public Schools Mathematics Course Paths
9th Grade
10th Grade
11th Grade
12th Grade
A student that is not ready for Algebra 1 upon entering high school, may be placed in Pre-Algebra. This needs department approval.
Algebra 1
Geometry
Technical Geometry
Career Center – 2 hour block
Geometry
Intermediate Algebra
Algebra 2
A's, B's or C's in Alg1 and Geo
Honors Geo
Honors Alg 2
Technical Math
Career Center – Sem. Course
Min: ACT 14 or ARITH 237+
Intermediate Algebra
College Intro to Stats
Career Center – 2nd Semester
Min ACT/Accuplacer Score
College Algebra/ Trigonometry
Min: ACT 22 or AAF 245+
Algebra 2
A's, B's or C's in Alg1 and Geo
AP Statistics
A's or B's with high reading scores
Pre-Calculus
A's, B's or C's in Alg 2
Honors Pre-Calc.
College Intro to Stats
Career Center – 2nd Semester
Min ACT/Accuplacer Score
Ext. Technical Math
Career Center – Full year Course
Min: ACT 22 or QDRA 237+
Algebra 2
FST - Functions, Statistics, and Trig
Pre-Calculus
College Algebra/ Trigonometry
Min: ACT 22 or AAF 245+
AP Statistics
AP Calculus AB
AP Calculus BC

Mathematics Course Paths

Current Course	**Logical Next Course**	**Other Optional Courses**
Pre-Algebra	Algebra 1	
Algebra 1	Geometry	
Geometry	Algebra 2 (C's or better in Alg1 & Geometry)	Interm. Alg if less than C's in Alg 1 or Geo
Honors Geometry	Honors Algebra 2	Regular Alg 2 if less than B's in Hon Geo
Intermediate Algebra	Algebra 2	
Algebra 2	Pre-Calculus	College Algebra (ACT 22 or Accuplacer)
		Functions, Statistics, Trig
Honors Algebra 2	Honors Pre-Calculus	Regular Pre-Calc if less than B's in Hon Alg 2
Pre-Calculus	AP Calculus or AP Statistics	
Honors Pre-Calculus	AP Calculus and/or Statistics	
College Algebra (Semester)	College Trig or College Stats	Graduate
AP Statistics	Graduate	
AP Calculus AB	Graduate or AP Calculus BC	

- In the high school math progression, a full year of Algebra is a prerequisite for Geometry; a full year of Geometry is a prerequisite for Algebra 2.
- Students take only one math class at a time.
- Math placement criteria involves not only NWEA scores, but also successful completion of prerequisite math courses.
- If math placements are to be corrected, this should take place in September - students cannot move up a math level (Pre-Algebra to Algebra 1 or Algebra 1 to Geometry) at the semester as they will have missed the concepts and skills taught during first semester. This gap in skills and knowledge will create problems for students when they move on to Geometry, Algebra 2, and higher levels of math.

+ Math 1 - 4	Credit 1 per Level	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: + Math is a remedial program. It is governed by the student's IEP; the program focus is to remediate skills in number concepts and computation. Students will demonstrate competencies in required math skills and related activities and will express themselves through oral and written problem solving.

Prerequisite Courses: None
Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

Pre-Algebra	Credit 1	9
Course Name	**Semester 1 and/or 2**	**Grade Level**

Course Description: Pre-Algebra provides learners with an opportunity to review and study foundational topics for Algebra 1. Students learn about slopes of lines, various applications and representations of linear equations and functions, and informal strategies to solve problems involving systems of linear equations in two variables. Further, they learn how to explore data sets by organizing, modeling, interpreting, describing and making predictions. Finally, they learn how to analyze two-and three-dimensional spaces and figures. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite Course: Per placement criteria
Applies toward graduation requirements of: 2 Math credits

Algebra 1	Credit 1	9, 10
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. Algebra 1 deepens and extends understanding of linear relationships, in part by contrasting them with exponential and quadratic phenomena, and in part by applying linear models to data that exhibit a linear trend. Students engage in methods for analyzing, solving, and using linear, exponential, and quadratic functions. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite Course: Pre-algebra
Applies toward graduation requirements of: 2 Math credits

Geometry	Credit 1	9, 10, 11
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Geometry students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Transformations are emphasized. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite Course: Algebra 1
Applies toward graduation requirements of: 2 Math credits

Honors Geometry	Credit 1	9, 10, 11
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Honors Geometry includes all the subject content of the regular geometry course but more emphasis is given to trigonometry. Honors mathematics students need to have strong number sense, a strong algebraic background and be motivated self-learners. Chapter projects take the students into real world applications of the mathematics and may require time outside of class to complete. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite Course: Algebra 1 and test scores meeting placement criteria

Applies toward graduation requirements of: 2 Math credits

Intermediate Algebra	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Intermediate Algebra is for students who need a bridge course prior to Algebra 2 following the completion of Geometry. This course reviews essential Algebra 1 topics and prepares students for success in Algebra 2. Topics include field properties and theorems, set theory, solving systems of linear equations and inequalities, solving and graphing quadratics and the use of technology.

Prerequisite Courses: Geometry

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

Algebra 2	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Algebra 2 students extend their repertoire of functions to include polynomial, rational, and radical functions. They expand their study of right triangle trigonometry to model periodic phenomena. Students work closely with expressions that define the functions and continue to expand and home their abilities to model situations and solve equations over the set of complex numbers. The Mathematical Practice standards apply throughout each course and, together with content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite Courses: Geometry or Honors Geometry

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

College Algebra (Math 121)	Credit 1/2	11, 12
Course Name	**Semester 1**	**Grade Level**

Course Description: College Algebra is a rigorous course that analyzes and interprets the behavior and nature of functions including linear, quadratic, polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions. Additional topics include systems of equations, matrices, and making decisions using probability. This course qualifies for Dual Enrollment Credit through Montana State University-Billings. Students must pass entrance requirements and pay course fees for MATH 121.

Prerequisite: Algebra 2 and qualifying test score on the ACT Math Test or the Accuplacer Exam.

Applies toward graduation requirements of: 2 Math credits

College Trigonometry (Math 122)	Credit 1/2	11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: Trigonometry is often considered a “gateway” course because its content is necessary for further study in upper level mathematics and the sciences. Topics covered in Trigonometry include: the unit circle, trigonometric functions (definitions, graphs, and inverses), right and oblique triangles, trigonometry identities, trigonometric equations the trigonometric form of complex numbers, two-dimensional vectors, polar coordinates, and parametric equations. This course qualifies for Dual Enrollment Credit through Montana State University-Billings. Students must pass entrance requirements and pay course fees for MATH 122.

Prerequisite: Math 121

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

Honors Algebra 2	Credit 1	10, 11
Course Name	**Semester 2**	**Grade Level**

Course Description: Honors Algebra 2 includes all the subject content of the regular Algebra 2 course but more emphasis is given to algebraic modeling, functions, matrices, trigonometry, sequence and technology to prepare students for other courses in the honors mathematics sequence. Honors mathematics students need to have strong number sense, a strong algebraic background and be motivated self-learners. Chapter projects take the students into real world applications of mathematics and may require time outside of class to complete. Students analyze data and connect mathematics topics. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite Courses: Geometry (with department head or administrator approval) or Honors Geometry

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

Functions, Statistics, & Trigonometry	Credit 1	11, 12
Course Name	**Semesters 1 & 2**	**Grade Level**

Functions, Statistics, & Trigonometry (FST) is a math option for students that have successfully completed courses through Algebra 2, but are still struggling with math standards that are essential for post-secondary classes. This course focuses on engaging the students in a real-world context and is designed to serve as a bridge for high school students who will enroll in postsecondary study.

FST incorporates the Montana Standards for Mathematical Practices as well as the following Montana Standards for Mathematical Content: Expressions and Equations, The Number System, Functions, Algebra, Geometry, Number and Quantity, Statistics and Probability, and the Montana Standards for High School Modeling. It addresses concepts throughout high school and even earlier, including Algebra1, Statistics and concepts throughout high school and even earlier, including Algebra 1, Statistics and Geometry, and the Algebra 2 deemed as essential for college and career readiness.

Prerequisite Courses: Algebra 2

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

Precalculus	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Precalculus students focus on standards to prepare students for a more intense study of mathematics. They expand their study of circles and parabolas to other conics. Trigonometric functions are further developed to include inverses, general triangles, and identities. Matrices provide an organizational structure in which to represent and solve complex problems. Students expand the concepts of complex numbers and the coordinate plane to represent and operate upon vectors. Probability rounds out the course using counting methods, including their use in making and evaluating decisions. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite Courses: Algebra 2 or Honors Algebra 2

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

Honors Precalculus	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Honors Precalculus includes all the subject content of the pre-calculus course but more emphasis is given to pre-calculus topics. Honors mathematics students need to have strong number sense, a strong algebraic background and be motivated self-learners. This course prepares students for success in AP Calculus, AP Stats, and/or college mathematics courses. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

Prerequisite Courses: Algebra 2 (with department head or administrator approval) or Honors Algebra 2

Applies toward graduation requirements of: 2 Math Credits or 7 Elective Credits

AP Calculus AB	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: AP Calculus is a college-level course that provides students with an understanding of the concepts of calculus and experience with its methods and applications. This course is also designed to prepare students for the AP Calculus exam. Topics include analysis of functions, limit theory, derivatives and integrals.

Prerequisite Courses: Honors Precalculus

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

AP Calculus BC	Credit 1	, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: AP Calculus is a college-level course that provides students with an understanding of the concepts of calculus and experience with its methods and applications. This course is also designed to prepare students for the AP Calculus BC exam. Topics include analysis of functions, limit theory, derivatives and integrals, infinite series,and parametric equations.

Prerequisite Courses: AP Calculus AB

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

AP Statistics	Credit 1	12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: AP Statistics is a college-level course that introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will learn exploring data, planning a study, anticipating patterns, and statistical inference. This course is also designed to prepare students for the AP Statistics exam.

Prerequisite Courses: Precalculus (with department head or administrator approval) or Honors Precalculus

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

College Introduction To Statistics	Credits 1/2 4 Credits @ MSU-Billings	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: College Introduction to Statistics covers descriptive techniques, probability distributions, and statistical inference of one and two sample tests and associated confidence intervals for means and proportions and linear regression. Introduces statistical analysis using technology. This course qualifies for Dual Enrollment Credit through Montana State University-Billings. Students must pass entrance requirements and pay course fees.

MSU-Billings: 4 credits in STAT 216 will be issued to students who pass the College Introduction to Statistics and complete all STAT 216 competencies.

Prerequisite Course: Algebra 2 and qualifying test score on the ACT Math Test or on the Accuplacer Exam.

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

SCIENCE

Science courses allow students to gain knowledge and an understanding of the world of nature. Our lives are greatly influenced by those who study and work in science areas.

Coursework can vary from the required two credits to four or more credits for those who wish to explore many disciplines of science. Whether students plan to attend college or pursue a technical career, they are encouraged to explore the sciences each year of high school.

Graduation requirements include one credit in biological science and one credit of physical science. Please see course descriptions for specific prerequisites and/or mathematics requirements.

Course Options in Science by Grade Level

Grade 9	Grade 10	Grades 11, 12
*Earth Science	*Biology 1	*Chemistry or Honors Chemistry
*Honors Earth Science	*Honors Biology 1	*Biology 2
*Biology 1 (Health Science Students)	*Chemistry	*Human Anatomy & Physiology
*Honors Biology 1 (Health Science Students)	*Honors Chemistry	*Environmental Science
		*Geology (Skyview & West)
		*Physics 1
		*Physics 2 (Skyview & Senior)
		*AP Biology
		*AP Chemistry (2nd Year Course)
		*AP Physics
		*AP Physics 2 (West & Skyview

Earth Science	Credit 1	9
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Earth Science is a one-year laboratory course in which the students will investigate the areas of Geology, Meteorology, Astronomy and Hydrology. Earth Science will strengthen the students basic investigative skills, enhance their ability to process information, and prepare them to make rational decisions concerning humans' interactions on Earth.

Prerequisite Courses: None
Applies toward graduation requirements of: 1 Physical Science credit

Honors Earth Science	Credit 1	9
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Honors Earth Science can expect a more challenging, rigorous curriculum that focuses on greater depth of topics and concepts, higher level questions, and intrinsic motivation on the part of the student. Students will be expected to do formal laboratory write-ups, reading outside of class, and use math for data analysis.

Prerequisite Courses: Must meet established placement criteria: Must have at least a B average in Physical Science for the first three quarters, Spring Reading RIT of at least 230, Spring Math RIT of at least 244

Applies toward graduation requirements of: 1 Physical Science credit

Biology 1	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This is an introductory survey course into the animal and plant kingdoms. Students will study the chemical basis of life and survey the diversity of living things. The course includes dissection for the study of anatomy.

Prerequisite Courses: Earth Science or 9th grade students who have declared a Health Science pathway.

Applies toward graduation requirements of: 1 Biology Science credit

Honors Biology 1	Credit 1	9, 10
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Honors Biology 1 can expect a more challenging, rigorous curriculum that focuses on greater depth of topics and concepts, higher level questions, and intrinsic motivation on the part of the student. Students will be expected to do formal laboratory write-ups, reading outside of class, and use math for data analysis.

Prerequisite Courses: Same prerequisites as Biology 1 and must meet established placement criteria: Spring Reading RIT of at least 232, Spring Math RIT of at least 248. Ninth grade students must have completed or are concurrently enrolled in Geometry.

Applies toward graduation requirements of: 1 Biology Science credit

AP Biology	Credit 1	11,12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: AP Biology is an introductory college-level biology course. There is a strong emphasis on descriptive writing in this course, as well as further development of lab skills. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes - energy and communication, genetics, information transfer, ecology, and interactions.

Prerequisite Courses - Biology 1 and Chemistry

Applies toward graduation requirements of: 1 Biology Science credit or 7 Elective Credits

Biology 2	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Biology 2 has two major objectives. The first is to provide students with the opportunity to engage in a variety of lab-based activities such as recombinant DNA technology, fruit fly genetics, and ecosystem analysis. The second objective is to provide students with an in-depth and up-to-date coverage of major biological concepts. The motivated student will find Biology 2 to be a great help in making the transition into college level biology courses.

Prerequisite Courses: This course is designed for students who have earned credits in Biology 1 and a physical science.

Applies toward graduation requirements of: 1 Biology Science credit **or** 7 Elective credits

Chemistry	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The chemistry course presents a modern approach to the principles of chemistry at a level suitable for the majority of high school students. The course has been developed within the framework of certain unifying concepts such as the chemical bond, the structure of matter, the matter-energy relationships, the periodicity of elements, the mole concept, chemical notation, the behavior of matter in terms of acidity, oxidation-reduction, chemical reactions, stoichiometry and chemical equations. The student is encouraged to think and reason independently.

Prerequisite Courses: This course is designed for students who have earned credits in Biology. Students may take this class if they have completed Algebra 1 and Algebra 2 with a “C” grade or better, or have completed Algebra I with a “C” grade or better and are concurrently enrolled in Algebra 2.

Applies toward graduation requirements of: 1 Physical Science credit **or** 7 Elective credits

Honors Chemistry	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Honors Chemistry is a first year course with emphasis on mathematical concepts in Chemistry. It covers the same topics as Chemistry and develops problem solving skills. In addition to an in depth study of the core curriculum, students will explore additional topics and labs.

Prerequisite Courses: This course is designed for students who have earned credits in Biology with a "B" grade or better and completed Algebra 2 with a "B" grade or better. Students may take this class if they are concurrently enrolled in Algebra 2 and have completed Algebra 1 with a "B".

Applies toward graduation requirements of: 1 Physical Science credit or 7 Elective credits

AP Chemistry	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: AP Chemistry is a second year course, and provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium.

Prerequisite Courses - Chemistry or Honors Chemistry

Applies toward graduation requirements of: 1 Physical Science credit or 7 Elective credits

Geology – Skyview & West	Credit ½ each semester	11, 12
Course Name	**Semester 1 and/or 2**	**Grade Level**

Course Description: Geology focuses on mineral and rock development and how natural forces cause these materials to develop the many landforms found on Earth. Topics of study include rocks and minerals, erosion, sedimentation, glaciers, volcanoes, earthquakes, plate tectonics, map reading, and interpreting Earth's history. Local, state, and national sites of geologic significance and current geologic events will be explored.

Prerequisite Courses: Completed Earth Science and Biology with a "C" or better, or instructor approval. Not a replacement course for Earth Science.

Applies toward graduation requirements of: 7 Elective credits

Environmental Science	Credit 1/2 each semester	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Environmental Science is designed to enhance the student's understanding of basic ecological principles and how they relate to the human situation. Students will explore such topics as endangered species, water and air quality, global warming, the greenhouse effect, and population. They will be challenged with field experience, hands-on investigations and research activities. Guest speakers may include professional scientists and local experts. At times the class will meet off campus to do field study. Each semester covers different topics. Students may elect to take one or both semesters.

Prerequisite Courses: This course is designed for students who have earned 2 science credits (Biology and a physical science). **Skyview students**: Semester 1 is a prerequisite to Semester 2.

Applies toward graduation requirements of: 7 Elective credits

Human Anatomy & Physiology	Credit 1	11, 12
Course Name	**Semester 1 and/or 2**	**Grade Level**

Course Description: This course provides a comprehensive introductory level approach to the structure and function of the human body. A lecture/laboratory format is used to study the major systems of the body with an attempt to integrate anatomy and physiology in a way that reinforces the inseparable relationship between structure and function. The course is designed for those students considering careers in allied health fields. Students may elect either or both semesters. Students who are enrolled in Medical Careers or Sports Medicine are encouraged to take this course second semester. Otherwise, it is recommended to take this course both semesters. At times the class will meet off campus to do field study. Dissection labs are an emphasis of second semester.

Prerequisite Courses: Biology 1 and a physical science

Applies toward graduation requirements of: 7 Elective credits

Physics 1	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Physics 1 is a full year laboratory science elective. This course introduces the application of simple mathematics to the concepts of mechanics, thermodynamics, waves, light, sound, and electromagnetism.

Prerequisite Courses: Completed Algebra 2 or currently enrolled in Algebra 2, and must have passed 1 credit of Biology or Physical Science

Applies toward graduation requirements of: 7 Elective credits

AP Physics	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

AP Physics 1 is an Algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore these topics: Kinematics; dynamics; circular motion and gravitation; energy; momentum; simple harmonic motion; torque and rotational motion; electric charge and electric force; DC circuits; and mechanical waves and sounds.

Prerequisite Courses: Geometry and either completion or concurrent enrollment in Algebra 2

Applies toward graduation requirements of: 7 Elective Credits

AP Physics 2	Credit 1	12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This course is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: fluids; thermodynamics; electrical force, field, and potential; electric circuits; magnetism and electromagnetic induction; geometric and physical optics; and quantum, atomic, and nuclear physics. AP Physics 2 is a full-year course that is the equivalent of a second-semester introductory college course in algebra-based physics.

This course requires that twenty-five percent of instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to demonstrate foundational physics principles and apply the science practices.

Prerequisite Courses: AP Physics 1 and should have taken or be concurrently taking pre-calculus.

Applies toward graduation requirements of: 7 Elective credits

SOCIAL STUDIES

Mission

Today's students more than ever before need a comprehensive understanding of the world, and of the many cultures that have developed ideas, institutions, and ways of life. Students can gain an appreciation both of the world's many cultures and their shared humanity and common problems.

Social Studies Course Structure

10th Grade

World History

Advanced Placement World History

11th Grade

United States History

Advanced Placement United States History

United States Lit/United States History Block

12th Grade

United States Government

Advanced Placement United States Government

College American Government

Other Social Studies Offerings for 12th Grade

Montana History

Economics

Modern World Issues

Psychology

Sociology/College Sociology

20th Century Genocide (West High Only)

AP Psychology

World History	Credit 1	10
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Knowledge of major historical events and accomplishments is necessary to understand current national and international affairs. This course stresses the diversity of economic, political, religious, and social systems; it encourages an appreciation for the scientific and artistic contributions of many cultures to the collective wisdom of the human race. The first semester concentrates on ancient civilizations and western medieval history. The second semester emphasizes those events which predominantly shaped the modern world.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 World History credit

Advanced Placement

World History	Credit 1	10
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Advanced Placement World History is a rigorous study of human interaction from 1200 C.E. to the present. This course will examine the integration of social, political, environmental, cultural and economic factors as we study the development of human societies. The focus of the course is truly global, and will include a balanced approach to Asia, Africa, Oceania, Europe and the Americas. AP World History offers an approach that lets students “do history” by guiding them through the steps a historian would take in analyzing historical events and evidence worldwide. College level reading and writing skills will be developed through critical evaluation of primary and secondary sources. Students will have the opportunity to earn college credit through the Advanced Placement examination process at the end of the school year.

This course will address the following areas of study:

- Development and transformation of social structures
- Development and interaction of cultures
- State-building, expansion and conflict
- Interaction between humans and the environment
- Creation, expansion and interaction of economic systems

Prerequisite Courses: None

Applies toward graduation requirements of: 1 World History credit

United States History	Credit 1	11
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This course provides students with an overview of the history of the United States by analyzing change and continuity within historical eras. This course includes a historical overview of political, military, scientific, and social developments while students analyze multiple and complex causal factors that have shaped major events in US history. Students will engage within compelling questions to plan inquiries; compare and evaluate sources for relevance, perspective, and accuracy; use sources to gather evidence to develop and refine claims; and communicate their conclusions. Course content will include the unique perspectives of American Indians in US History.

The Historical Eras to be addressed:

- Founding Era to Reconstruction
- Manifest Destiny/Gilded Age
- Progressives and Imperialism
- World War 1/Depression/World War 2
- Early Cold War/Domestic America 1945-60
- Civil Rights/Vietnam War
- Late Cold War/Detente 1960-90
- Watergate to Reagan/Bush Sr. 1973-92
- New Millennium 1990-Current

Prerequisite Courses: None
Applies toward graduation requirements of: 1 United States History credit

Advanced Placement

United States History	Credit 1	11
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The Advanced Placement program in United States History is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials-their relevance to a given interpretive problem, their reliability, and their importance- and to weigh the evidence and interpretations presented in historical scholarship. An Advanced Placement United States History course should thus develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in an essay format.

This course will address the following areas of study:

- Indigenous Peoples and Societies of North America
- Colonization and World Settlement in North America
- The Revolution
- The Advent of the United States and the Constitutional Period Era
- Expansion
- The Civil War
- Reconstruction and Industrialization
- The Emergence of Modern America During the World Wars and Interwar Period
- The Rise of America as the Dominant World Power in the Later 20th Century

Prerequisite Courses: 1 United States History credit
Applies toward graduation requirements of: 1 United States History credit

United States Literature/ United States History Block	Credit 1 English	11
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The combination of American History and American Literature follows the curriculum and essential requirements currently established and approved in School District Two for 11th Grade English and United States History. This American Studies approach encourages the students to appreciate and understand links between the past and the writers who explored the American experience of writing and discussing, students examine the different genres and periods of the past. Students are required to take both the literature and history portions of the block both semesters.

TWO –HOUR BLOCK

Prerequisite Courses: None
Applies toward graduation requirements of: 1 United States History credit

United States Government	Credit 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: The goal of education in government is informed, responsible participation in political life. The study of the United States government will provide students an opportunity to acquire knowledge of government and to practice the skills necessary to become responsible, participatory citizens.
This course will address the following areas of study:

- The U.S. Constitution
- Federalism
- Comparative Government
- Politics and Political Participation
- Political Theory
- The Election Process
- The Courts
- The Executive Branch
- The Legislative Branch
- The Structure of State, Tribal, and Local governments
- Civil Liberties and Rights

Prerequisite Courses: None
Applies toward graduation requirements of: 1/2 United States Government credit & 1/2 Social Studies credit

Advanced Placement United States Government	Credit 1	12
Course Name	**Semester 1 & 2 Full Year Course**	**Grade Level**

Course Description: Advanced Placement United States Government is an essential study for students desiring success on the A.P. U.S. Government exam. In this college level course, students will enter in an in-depth study of government through readings, writing assignments, and research projects.
This course will address the following areas of study:

- Constitutional underpinnings of the United States Government
- Political Beliefs and Behaviors
- Institutions of National Government: the Congress, the Presidency, the Bureaucracy, and the Federal Courts
- Political Parties, Interest Groups, and Mass Media
- Public Policy
- Civil Rights and Civil Liberties
- The Structure of State, Tribal, and Local Governments

Prerequisite Courses: 1 credit of American History or Advanced Placement American History

Applies toward graduation requirements of: 1/2 United States Government credit **AND** 1/2 Social Studies credit

College American Government	Credits 1/2 3 Credits @ MSU-B	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Covers the American Political System relative to central government and institutions. Attention is given to concepts, organizations and functions with emphasis on the political, governmental and democratic processes and problems, including the role of individual and group relationships. Provides a perspective and background for further study in Political Science. Please see individual school's syllabus for additional topics. Students must meet entrance requirements and pay course fees.

City College/MSU-Billings: 3 credits in PSCI 210 Introduction to American Government will be issued to students who pass all competencies.

Prerequisite Course: Qualifying score on the ACT or on the Accuplacer Exam.

Applies toward graduation requirement of: ½ United States Government

Psychology	Credit 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This class will help students understand and describe human thinking, learning, memory, development, personality, and behavior.

This course will address the following areas of study:

- Social and Cultural Dimensions of Behavior
- Sensation and Perception/Motivation and Emotion
- Mental and Emotional Health
- Personality/Memory/State of Consciousness
- Human Growth and Development
- Biological Bases/Research and Methods
- Psychological Disorders and Treatments

Prerequisite Courses: None

Applies toward graduation requirements of: 1/2 Social Studies credit

AP Psychology	Credit 1	12
Course Name	**Semester 1 & 2 (Year Long)**	**Grade Level**

Course Description: Advanced Placement ® Psychology is a one semester collegiate level survey which will introduce students to psychological objectives, content, and methodologies. The goal of this course is to give students a useful understanding of that content, along with evidentiary understandings of treatment, neuropsychological contributions to the field, and psychology as a science. This course will include extensive readings from an AP® recognized college level text along with an assortment of other scholarly readings, most of which are noted in the course syllabus. Students will have the opportunity to earn college credit through the Advanced Placement examination process.

This course will address the following areas of study:

- History and Approaches/Research Methods
- Sensation and Perception
- Biological Basis of Behavior/State of Consciousness
- Cognition and Memory
- Motivation/Emotion/Personality
- Developmental Psychology
- Testing and Individual Differences
- Abnormal Psychology and Treatment
- Social Psychology

Prerequisite Courses: There are no specific prerequisite courses that are required for enrollment in AP® Psychology. Nonetheless, students enrolling in this course should be prepared for challenging readings, assignments, and exams.

Applies toward graduation requirements of: 1/2 Social Studies credit or 7 Elective credits

Montana History	Credit 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: The purpose of Montana History is to understand the interplay of cultures; Native American, Asian, Hispanic, and European; in the development of the unique culture in Montana.

This course will address the following areas of study:

- Pre-contact and Montana's Indigenous People
- Exploration and Fur Trade
- Cattle
- Montana in the Late 19th Century
- Homesteading
- Depression and World War II
- Post-World War II and Montana

Prerequisite Courses: None

Applies toward graduation requirements of: 1/2 Social Studies credit

20th Century Genocide -West Only	Credit 1/2	12
Course Name	**Semester 1**	**Grade Level**

Course Description: This class will include 20th century genocide. The Holocaust is a reminder of how a modern nation, with educated citizens, advanced technology, and a sophisticated culture can implement a program that its citizens will follow for racial hatred and mass murder. The events of the American Indians in Montana, the genocide in Turkey, Cambodia, the Balkans, Rwanda, and today in Darfur will be studied also.

Prerequisite Courses: None

Applies toward graduation requirements of: 1/2 Social Studies credit

Economics	Credit 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course will introduce students to the fundamentals of macro and micro economic principles, the tangible workings of our economic system, and the general functions of the financial sector.

This course will address the following areas of study:

- The Prominent Economic Systems and Comparative Analysis
- Economic Decision Making
- Aggregate Supply and Demand
- Money Multipliers and Consumption
- Business Cycles
- Currency and Trade
- Price Utility and Elasticity
- Industrial Hierarchies
- Marginal Thinking
- Financial Markets and Institutions
- The Federal Reserve System

Prerequisite Courses: None

Applies toward graduation requirements of: 1/2 Social Studies credit

Modern World Issues	Credit 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: The study of world issues is essential for students desiring an understanding of relationships among various cultural and ethnic groups throughout the world. Students will study current controversial world issues by investigation history and the current status of various world conflicts and tensions.

This course will address the following areas of study:

- The Middle East
- World Starvation/Poverty
- Terrorism
- International Revolution/Civil and Mixed Conflict
- International Economic Struggles
- Weapons of Mass Destruction/Weapons Proliferation
- Current Political, Social, Economic World Events
- The Role of the United Nations
- Religious Tensions

Prerequisite Courses: None

Applies toward graduation requirements of: 1/2 Social Studies credit

Sociology	Credit 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This class will help
students examine human relationships and behaviors. The course will study the causes and consequences of human interaction from the group perspective.

This course will address the following areas of study:

- Sociology as a Social Science
- The Sociological Perspective and Scientific Method
- Society and the Individual
- Group Interactions
- Social Institutions
- Social Problems

Prerequisite Courses: None

Applies toward graduation requirements of: 1/2 Social Studies credit

WORLD LANGUAGES

The goals of foreign language study are linguistic and cultural. The overall linguistic objectives for modern foreign languages are:

- **To comprehend the spoken language**
- **To communicate with others in the language**
- **To comprehend the written language without translation into English**
- **To write the language in the accepted and current form and style**
- **To listen, read, write and speak in the target language**

The cultural objectives are:

- **To understand foreign social, political, religious and economic life**
- **To comprehend foreign tradition, custom, art and achievement**
- **To comprehend the relationship between two cultures and, by comparison, to learn and to become aware of American values, traditions and social and political institutions**

Language study can involve adventure and the fun of exploring the unfamiliar. Successful language students tend to have the following characteristics:

- **Ability to stay on task**
- **Ability to pay attention to small details**
- **Ability to analyze and transfer material**
- **Ability to break down and reconstruct concepts**
- **Willingness to memorize assigned vocabulary on an ongoing basis**
- **Willingness to participate orally in class activities**
- **Willingness to accept responsibility for their learning**

French 1	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students in French 1 will begin to communicate in the target language. Students will be learning a variety of everyday terms and the basic elements of communication. In addition to communication, students will develop an understanding of culture, will learn to connect the target language to English, and discover the influence of the language in our community. Students will be required to read, write, speak and listen in the target language on a daily basis. At the end of French 1, students should be able to sustain simple conversations utilizing the new vocabulary they have learned.
Prerequisite Courses: None
Applies toward graduation requirements of: 7 Elective credits

French 2	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students in French 2 will begin building on the skills they acquired in French 1. Reading, writing, speaking and listening will continue to be emphasized but at a slightly more advanced level. Students will continue to make connections between the target language and culture with our own language and culture. Students will begin working with authentic materials in the target language. They may also learn about current events impacting the countries they are studying.
Prerequisite Courses: French 1
Applies toward graduation requirements of: 7 Elective credits

French 3	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The emphasis will shift from learning the language to learning in the language. The student will demonstrate increased proficiency in communication, understanding of culture, connections, comparisons, and community. Students may work from a variety of sources, texts, novels, newspapers, magazines, poetry, music, short stories and legends. Video will begin to be incorporated more frequently to enhance students' ability to understand a native speaker. More emphasis will be placed on advanced grammatical skills and essay writing. Students will also be encouraged to create original presentations in the target language.
Prerequisite Courses: French 2
Applies toward graduation requirements of: 7 Elective credits

French 4 - Skyview & West	Credit 1	12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: At this level, students are striving to develop an accurate control of the basic functions of the target language. Students will be expected to write compositions, conduct conversations, and read a variety of materials. The class will be conducted primarily in the target language.
Prerequisite Courses: French 3
Applies toward graduation requirements of: 7 Elective credits

Advanced Placement

French Language & Culture - Senior Only	**Credit 1**	**12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Advanced Placement French compares to an advanced-level college French Course. Emphasizing the use of French for active communication, essential requirements include comprehension of formal and informal spoken French, acquisition of vocabulary and sentence structure to facilitate the reading of French literature, composition of expository passages and complex expression of ideas orally. This course is a nationally approved curriculum.

Prerequisite Courses: French III and teacher recommendation

Applies toward graduation requirements of: 7 Elective Credits

German 1	**Credit 1**	**9, 10, 11, 12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students in German 1 will begin to communicate in the target language. Students will be learning a variety of everyday terms and the basic elements of communication. In addition to communication, students will develop an understanding of culture, will learn to connect the target language to English, and discover the influence of the language in our community. Students will be required to read, write, speak and listen in the target language on a daily basis. At the end of German 1, students should be able to sustain simple conversations utilizing the new vocabulary they have learned.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective credits

German 2	**Credit 1**	**10, 11, 12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students in German 2 will begin building on the skills they acquired in German 1. Reading, writing, speaking and listening will continue to be emphasized but at a slightly more advanced level. Students will continue to make connections between the target language and culture with our own language and culture. Students will begin working with authentic materials in the target language. They will also learn about current events impacting the countries they are studying.

Prerequisite Courses: German 1

Applies toward graduation requirements of: 7 Elective credits

German 3	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The emphasis will shift from learning the language to learning in the language. The student will demonstrate increased proficiency in communication, understanding of culture, connections, comparisons, and community. Students will work from a variety of sources, texts, novels, newspapers, magazines, poetry, music, short stories and legends. Video will begin to be incorporated more frequently to enhance students' ability to understand a native speaker. More emphasis will be placed on advanced grammatical skills and essay writing. Students will also be encouraged to create original presentations in the target language.

Prerequisite Courses: German 2

Applies toward graduation requirements of: 7 Elective credits

Advanced Placement

German Language & Culture-Senior & West only	Credit 1	12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Advanced Placement German compares to an advanced-level college German Course. Emphasizing the use of German for active communication, essential requirements include comprehension of formal and informal spoken German, acquisition of vocabulary and sentence structure to facilitate the reading of German literature, composition of expository passages and complex expression of ideas orally. This course is a nationally approved curriculum.

Prerequisite Courses: German III and teacher recommendation

Applies toward graduation requirements of: 7 Elective Credits

Spanish 1	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students in Spanish 1 will begin to communicate in the target language. Students will be learning a variety of everyday terms and the basic elements of communication. In addition to communication, students will develop an understanding of culture, will learn to connect the target language to English, and discover the influence of the language in our community. Students will be required to read, write, speak and listen in the target language on a daily basis. At the end of Spanish 1, students should be able to sustain simple conversations utilizing the new vocabulary they have learned.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective credits

Spanish 2	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students in Spanish 2 will begin building on the skills they acquired in Spanish 1. Reading, writing, speaking and listening will continue to be emphasized but at a slightly more advanced level. Students will continue to make connections between the target language and culture with our own language and culture. Students will begin working with authentic materials in the target language. They may also learn about current events impacting the countries they are studying.

Prerequisite Courses: Spanish 1

Applies toward graduation requirements of: 7 Elective credits

Spanish 3	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The emphasis will shift from learning the language to learning in the language. The student will demonstrate increased proficiency in communication, understanding of culture, connections, comparisons, and community. Students will work from a variety of sources, texts, novels, newspapers, magazines, poetry, music, short stories and/or legends. Video will begin to be incorporated more frequently to enhance students' ability to understand a native speaker. More emphasis will be placed on advanced grammatical skills and essay writing. Students will also be encouraged to create original presentations in the target language.

Prerequisite Courses: Spanish 2

Applies toward graduation requirements of: 7 Elective credits

Advanced Placement

Spanish Language & Culture-Senior & West only	Credit 1	12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Advanced Placement Spanish compares to an advanced-level college Spanish Course. Emphasizing the use of Spanish for active communication, essential requirements include comprehension of formal and informal spoken Spanish, acquisition of vocabulary and sentence structure to facilitate the reading of Spanish literature, composition of expository passages and complex expression of ideas orally. This course is a nationally approved curriculum.

Prerequisite Courses: Spanish III and teacher recommendation

Applies toward graduation requirements of: 7 Elective Credits

ART EDUCATION

Art Education courses provide the student with an opportunity for creative expression and for understanding and appreciation of the world. In addition, art courses offer the students an introduction to self-evaluation and higher level problem solving skills. The basic art elements (line, shape, and color, etc.) and the basic art principles (balance, emphasis, etc.) will be the structural framework for each of the classes. These classes, if taken for two semesters, will fulfill the visual arts graduation requirement.
Students are expected to buy basic art tools for each course. In addition, those students who undertake projects requiring relatively expensive materials will be expected to pay some of the cost. A list of courses with class prerequisites and lab fees will be provided at each of the three high schools for registration purposes.

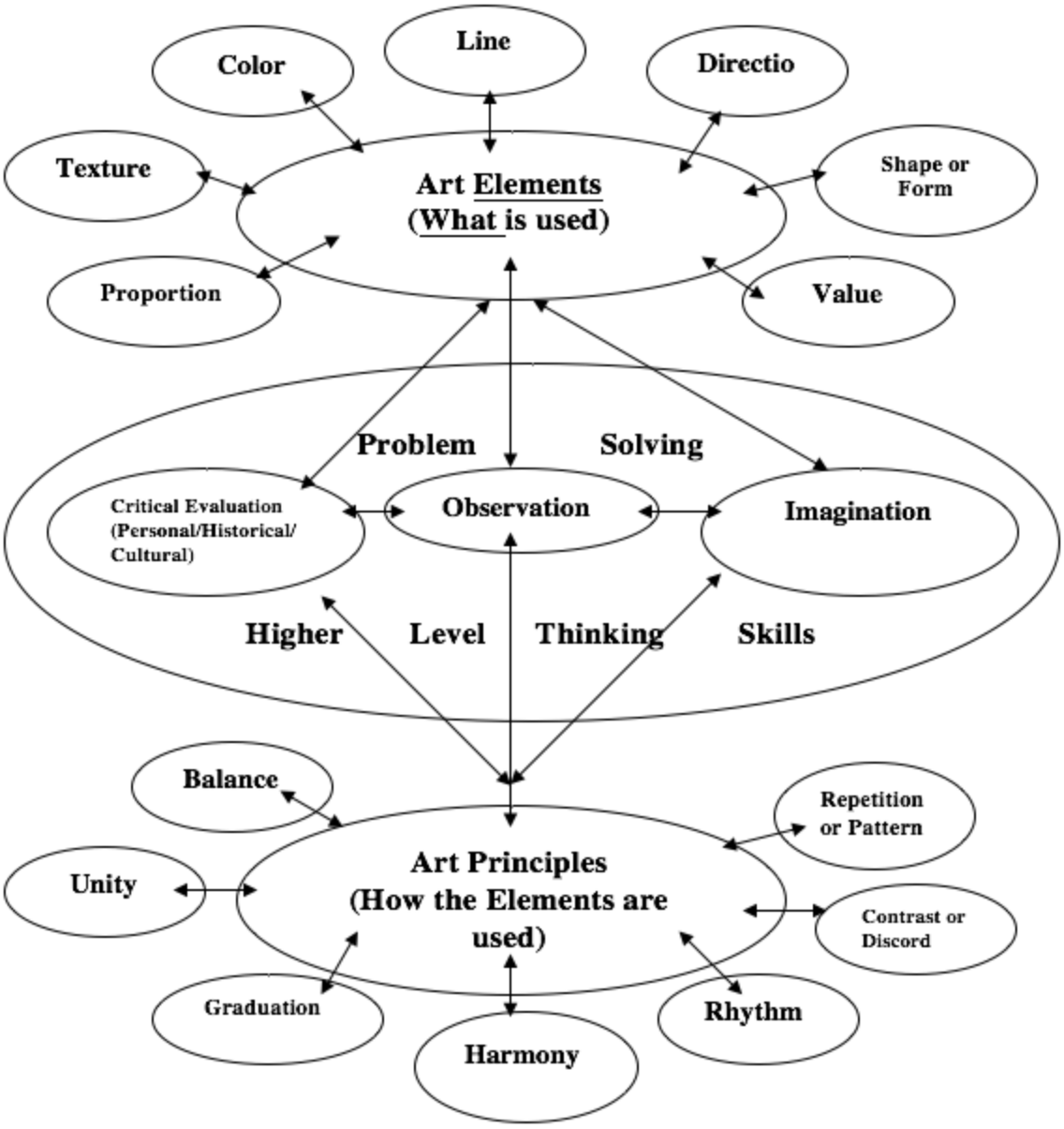
Art Course Offerings at Individual Schools

Core Curriculum offered at all High Schools

Art 1
Art 2
Ceramics 1
Ceramics 2
Drawing & Design
Sculpture
Advanced Art
Jewelry 1
Painting 1
Painting 2
AP Art and Design

Offerings unique to each school

CAREER CENTER	SENIOR	SKYVIEW	WEST
Graphics Print/Photo	Photography	Jewelry 2	Jewelry 2
Design Advertising/Design Layout			
Digital Photo			
Digital Illustration			
Animation Lab 1 & 2			
Exploring Visual Media			



The art elements are the components of art, or what an artist uses to create a work. The art principles are how an artist uses the elements to create. While the terminology applying to art elements and principles vary somewhat from artist to artist and book to book, the basic concepts are the same. For example, form is a 3-dimensional variation of shape, discord is a form of contrast, and rhythm is achieved by repeating a pattern of elements.

Art 1	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Art 1 is a basic exploratory course covering a variety of art activities. Projects are structured to accommodate students with little or no background in art, while also being open-ended to meet the enrichment needs of students with a more extensive background.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: None
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Art 2	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Art 2 emphasizes a more advanced utilization of the concepts, media, and techniques learned in Art 1. New 2-D and 3-D media and techniques are also introduced.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Art 1
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Ceramics 1	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Ceramics 1 presents a brief history of ceramics. Students are exposed to hand-built and wheel thrown techniques. They also study decorating, glazing, stacking, and firing of ceramics. In order to understand the complete process, emphasis will be on pottery as a functional as well as sculptural art form using basic elements and principles of design.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Art 1 (Waived at Senior High for Juniors/Seniors)
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Ceramics 2	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Ceramics 2 is a continuation of Ceramics 1. Students will work with hand building and wheel-throwing techniques. Students will actively participate in kiln loading and firing.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Ceramics 1
Applies toward graduation requirements of: 7 Elective Credits

Jewelry 1	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Jewelry 1 is an exploration of the fabrication of jewelry through the use of traditional and contemporary materials, tools, and equipment involved in the creation of jewelry. This is accomplished through completing a series of projects that provide a survey of basic jewelry processes, design, and history.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Art 1 and Art 2 required at Senior & Skyview, Art 1 required at West
Applies toward graduation requirements of: 7 Elective Credits

Jewelry 2 – West & Skyview	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Second semester (advanced) students will be expected to have a working knowledge of the skills and techniques taught at the beginning (Jewelry 1) level. They will be exposed to more advanced metals techniques and design, requiring a higher degree of physical and mental abilities. They will be expected to act as positive role models and to produce projects beyond the capabilities of beginning students.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Jewelry 1
Applies toward graduation requirements of: 7 Elective Credits

Drawing and Design	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course develops advanced techniques in a variety of drawing media. Projects involve problem solving using the elements and principles of design as they relate to nature, real life and the imagination.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Art 1 and Art 2
Applies toward graduation requirements of: 7 Elective Credits

Sculpture (3-D Design)	Credit 1/2	10, 11, 12
Course Name	**Semester 1**	**Grade Level**

Course Description: Sculpture focuses on the development and production of the 3-dimensional art form. The student will study and explore the history of sculptural art and design strategy using traditional and nontraditional materials.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Art 1 & 2, or Art 1 and Ceramics
Applies toward graduation requirements of: 7 Elective Credits

Painting 1	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course deals primarily with techniques in oils and/or acrylics. Projects include themes related to realism, abstraction, and working with one's imagination.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Drawing and Design
Applies toward graduation requirements of: 7 Elective Credits

Painting 2	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course will expand the beginning painter's understanding of the basic concepts, techniques, and practice of the painting mediums of acrylic, watercolor and oil, students will explore both traditional and non-traditional painting themes and styles through specific projects. The history of painting will be emphasized through critical analysis of paintings, past and present.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Painting 1
Applies toward graduation requirements of: 7 Elective Credits

Photography - Senior Only	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: The student will study cameras, film, developing and printing film, lighting, composition, special effects, developing and printing.

This course requires a lab fee for supplies and materials.

Prerequisite Courses: Teacher recommendation and administrator's approval.
Applies toward graduation requirements of: 7 Elective Credits

Advanced Art	**Credit 1 or 1/2**	**12**
Course Name	**Semester 1 and/or 2**	**Grade Level**

Course Description: This course is designed for the serious 12th grade art student. The emphasis will be on the development of a portfolio which could be used for college acceptance, college scholarships, and job applications. The student will have the choice of working in one or more media such as painting, drawing, ceramics, sculpture etc. and must be able to work independently. This course requires a lab fee for supplies and materials.

This course requires specific supplies and materials.

- **Advanced Art - Ceramic (West & Skyview)**
- **Advanced Art - Jewelry (West & Skyview)**
- **Advanced Art - Photography (Senior)**

Prerequisite Courses: Four semesters of Art (including Drawing & Design), or instructor approval.

Applies toward graduation requirements of: 7 Elective Credits

AP Art & Design	**Credit 1**	**12**
Course Name	**Semester 1 & 2 (Year Long)**	**Grade Level**

Course Description: The AP Art and Design program consists of three different AP Portfolio Exams--AP 2-D Art and Design, AP 3-D Art and Design, and AP Drawing--corresponding to college and university foundations courses. Students may choose to submit any or all of the AP Portfolio Exams. Students create a portfolio of work to demonstrate inquiry through art and design and development of materials, processes, and ideas over the course of a year. Portfolios include works of art and design, process documentation, and written information about the work presented. In May, students submit portfolios for evaluation based on specific criteria, which include skillful synthesis of materials, processes, and ideas and sustained investigation through practice, experimentation, and revision, guided by questions. Students may choose to submit any or all of the AP Portfolio Exams.

Prerequisite Course: Prior coursework in Art 1 & 2 and upper-level art electives are highly recommended. Interested students should seek instructor recommendations and/or portfolio evaluation prior to enrollment.

Applies towards graduation requirements of: 7 Elective Credits

AP Art History	Credit 1	12
Course Name	**Semester 1 & 2 (Year Long)**	**Grade Level**

Course Description: The AP Art History course welcomes students into the global art world to engage with its forms and content as they research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art. By investigating specific course content of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the students develop in-depth, holistic understanding of the history of art from a global perspective. Students learn and apply skills of visual, contextual, and comparative analysis to engage with a variety of art forms, developing understanding of individual works, and interconnections across history.

The AP Art History Exam assesses student understanding of the skills and learning objectives outlined in the course framework. The exam is made up of multiple choice questions and six free response questions that are answered through both long essay and short essay formats.

Prerequisite Course: Prior coursework in Art 1 and 2 and upper-level art electives are highly recommended. Interested students should seek instructor recommendations and evaluation prior to enrollment.

Applies towards graduation requirements of: 7 Elective Credits

Note: This course does not count as a social studies elective.

THEATER

Theatre 1	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 (Skyview Only)** **Semester 2 (Senior & West)**	**Grade Level**

Course Description: Theater 1 is designed to introduce, review, and improve acting techniques. This course encompasses not only acting but theatre history, play writing, stage makeup, costuming, and business management. Several scenes as well as one-act plays are rehearsed and performed.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Theatre 2	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: Theater 2 is designed for the returning theatre student. In this course the student will learn body and voice communication; mental discipline and creativity; dramatic tradition (such as the study of dramatic form, playwrights and major plays); the performance aspects of theatre including personal growth and awareness of aesthetics; and the exploration of career and leisure possibilities. Theatre production involves several disciplines such as acting, play producing, (business management), and technical theatre (staging, lighting, designing, costuming, etc.). The course includes discrimination of artistic quality, and knowledge of other cultures and dramatic heritage.

Prerequisite Courses: Theatre 1 or advanced experience in acting or instructor approval
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Acting 1 & 2 (West Only)	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: A variety of mime, movement, and vocal exercises along with scene work and other theatre exercises will be used to develop the skills needed for character portrayal. Reading, viewing, and analyzing plays will be used to develop the understanding of the discipline required for theatre and to develop an appreciation for theatre as an art. Objectives include demonstrating knowledge and competent performance of theatrical arts concepts and skills.

Prerequisite Courses: None for Semester 1
Completion of Semester 1 to register for Semester 2

Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Advanced Acting (West Only)	Credit 1/2	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students will further develop their character portrayal skills while continuing to develop the discipline required by the actor. A variety of monologue and ensemble performances, along with experiences to assist the actor in analyzing a script and experiences to assist the actor in understanding the role of the actor in the production process, will be used to further instill the concept of theatre as an art. Students will further develop their skills as an actor and explore, further, the business side of performance along with career opportunities and practical applications of the business behind theatre. Students will study in depth different styles of acting through script analysis and historical context and emphasis.

Prerequisite Courses: Acting 1 & 2 or Theatre 1 & 2 or instructor recommendation
Completion of Semester 1 to register for Semester 2

Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Directing and Design (West Only)	Credit 1/2	12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students will learn and practice the following integrated aspects: world theatre traditions, the director's vision for realization on the stage; the relationship between the play's themes and the actions of the characters within the play; and the processes of bringing the play to life, including all design aspects, rehearsal techniques as well as other production elements.

Prerequisite Courses: Advanced Acting or Technical Theatre; or instructor recommendation
Completion of Semester 1 to register for Semester 2

Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Technical Theatre (West Only)	Credit 1/2	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This course focuses on technical theatre to develop an overall understanding and appreciation of theatre. Emphasis will be placed on costume, scenic, and lighting design in addition to the business side of theatre, studying concepts and skills including: color theory, construction, painting, sewing basics, stage management, marketing, and hanging lights. Members of the class will assist with the technical aspects of BWHS theatre productions presented during the semester during the class in a "work lab" based environment.

Prerequisite Courses: Acting 1 & 2 or Theatre 1 & 2
Completion of Semester 1 to register for Semester 2

Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Musical Theatre (West Only)	Credit 1/2	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This course focuses on the art of musical theatre to develop a well-rounded performer. There will be basic dance theory, music theory, literary analysis techniques and health, musical theatre history, and acting.

Prerequisite Courses: Acting 1 & 2 or Theatre 1 & 2
Completion of Semester 1 to register for Semester 2

Applies toward graduation requirements of: 1 Visual or Performing Arts credit

MUSIC

Simply stated, music students as a whole enjoy greater college success. One recent study of 7,500 university students revealed that music majors scored the highest reading scores among all majors including English, biology, chemistry, and math. And according to an article in the *Phi Delta Kappan Journal*, 1994, Physician and biologist Lewis Thomas studied the undergraduate majors of medical school applicants, indicating that music majors were most successful in being admitted to medical school. He found that 66% of music majors who applied to medical school were admitted, the highest percentage of any group. By comparison, 44% of biochemistry majors were admitted.

Music is one of the arts which so sharpened our sense of participation in the world that it gave a much greater meaning to life. Anthony Storr says, "Although music is not a belief system, I think that its importance and its appeal also depend upon its being a way of ordering human experience. Music exalts life, enhances life, and gives it meaning. Great music outlives the individual who created it. It is both personal and beyond the personal. For those who love it, it remains as a fixed point of reference in an unpredictable world. Music is a source of reconciliation, exhilaration, and hope which never fails." -----from the University of North Carolina, Wilmington

Music benefits the student because it cultivates the whole person, gradually building many kinds of literacy while developing intuition, reasoning, imagination, and dexterity into unique forms of expression and communication. This process requires not merely an active mind but a trained one. It introduces students to a variety of ways of perceiving and thinking.

The High School Music Department provides opportunities for all students to participate because the variety of classes offered is structured to accommodate individual interests and ability levels. Although auditions are required for participation in the more advanced ensembles, each discipline makes allowances for open enrollment in other classes. Participation in the "curricular" music classes also affords the student with opportunity to take advantage of a variety of extra-curricular musical activities.

Music courses, if taken for two semesters will fulfill the visual and performing arts graduation requirement.

Chamber Band	Credit 1	9
Course Name	**Semester 1 and 2**	**Grade Level**

Course Description: This class is intended for freshman students who have successfully participated in 7th and 8th grade band class, playing woodwind and brass instruments. Percussion students should enroll in PERCUSSION ENSEMBLE. Emphasis is placed on the fundamentals of music and instrumental technique. A wide variety of musical literature will be explored. A part of the course content includes required public performances of prepared literature.

Prerequisite Courses: At least 2 years (or equivalent) of successful band experience AND/OR Instructor approval.
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Concert Band	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This is a mid-level ensemble. The students receive more advanced instruction in music fundamentals, instrumental technique and the interpretation of various styles of band literature. A part of the course content includes required public performances.

Prerequisite Courses: At least 2 years (or equivalent) of successful band experience AND/OR Instructor approval.
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Symphonic Band	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This group is a balanced ensemble designed to facilitate student achievement to the highest possible standards of excellence. The course explores band literature of many eras. Various musical idioms are studied through analysis and rehearsal. A part of the course content includes required public performances.

Prerequisite Courses: By AUDITION ONLY---Auditions to be held in the spring for the following school year.
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Percussion Ensemble	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1**	**Grade Level**

Course Description: All percussionists (grades 9-12) are placed in percussion ensemble for the first semester of the school year. The course will focus on percussion techniques on both melodic and non-melodic instruments in the band and orchestra ensembles. The class will perform as a group on concerts during the fall semester. At the end of the first semester, students will be assigned to a band class for the second semester through an audition process. **Equipment needed for this class** includes snare sticks, bell mallets, yarn mallets, and timpani mallets. Students should have a basic understanding of snare drum rudiments and be able to demonstrate basic music reading skills.

Prerequisite Courses: At least 2 years (or equivalent) of successful band experience AND/OR Instructor approval.
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Music Theory – Skyview & West	Credit 1/2	10, 11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: This course is recommended for students planning on taking Music Theory in college. Music Theory is a second semester course open to all students (grades 10-12).
The fundamentals of musicianship are examined through visual and aural analysis. Principles of music notation, harmony and composition are explored, as well as harmonic and melodic dictation. Previous experience in music classes is preferred, but not required. ***Only offered on odd-numbered years at West.**

Prerequisite: None
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

String Orchestra - Senior	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This class is an entry-level orchestra course. The course is oriented toward the less experienced player. Emphasis is placed on the fundamentals of music and instrumental technique. This class would be an excellent opportunity for an established musician to switch to a different instrument, or to pick up an instrument that has not been played recently. A wide variety of musical literature will be explored. A part of the course content includes public performances.

Prerequisite Courses: At least 2 years (or equivalent) of successful orchestra experience AND/OR Instructor approval.
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Chamber Orchestra	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This class is an intermediate-level orchestra course. The course is oriented toward the average experienced player. Emphasis is placed on the fundamentals of music and instrumental technique. A wide variety of musical literature will be explored. A part of the course content includes public performances.

Prerequisite Courses: Audition and Instructor Approval
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Philharmonic Orchestra	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This group is a balanced ensemble designed to facilitate student achievement to the highest possible standards of excellence. The course explores orchestra literature of many eras. Various musical idioms are studied through analysis and rehearsal. Full orchestra (including wind players) necessitates some rehearsals outside of the regularly scheduled class times. A part of the course content includes required public performances.

Prerequisite Courses: Audition and instructor approval
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Cantus (Tenor/Bass)	**Credit 1**	**9, 10, 11, 12**
Chanterelles (Alto/Soprano)	**Credit 1**	**9, 10, 11, 12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This is an ensemble for beginning or developing singers. Emphasis is placed on the fundamentals of music and vocal technique. A wide variety of musical literature will be explored. A part of the course content includes required public performances.

Prerequisite Courses: None
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Concert Choir (Mixed Choir)	**Credit 1**	**9, 10, 11, 12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This group is a balanced choir of intermediate to advanced singers. The students receive instruction in music fundamentals, vocal technique and the interpretation of various styles of choral literature. A part of the course content includes required public performances.

Prerequisite Courses: BY AUDITION ONLY---Auditions to be held in the spring for the following school year.
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Chamber Choir (Treble Choir)	**Credit 1**	**9, 10, 11, 12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This group is a balanced choir of intermediate to advanced female singers. The group explores great literature for women's voices of all styles and periods in history. A part of the course content includes required public performances.

Prerequisite Courses: BY AUDITION ONLY---Auditions to be held in the spring for the following school year.
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Varsity Choir - Senior	**Credit 1**	**9, 10, 11, 12**
Chorale - Skyview	**Credit 1**	**9,10, 11, 12**
Meistersingers Choir - West	**Credit 1**	**9, 10, 11, 12**
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This group is a balanced (SATB) ensemble designed to facilitate student achievement to the highest possible standards of excellence. The course explores choral literature of many eras. Various musical idioms are studied through analysis and rehearsal. A part of the course content includes required public performances.

Prerequisite Courses: BY AUDITION ONLY---Auditions to be held in the spring for the following school year.
Applies toward graduation requirements of: 1 Visual or Performing Arts credit

Music Improvisation – Senior & West	Credit 1/2	10, 11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: Music Improvisation is a second semester course. This class will explore many musical styles, with emphasis on musical improvisation. Class work will include fundamentals of improvisation, music theory, ear training, and practice methods. Creativity and experimentation within your musical genre will be encouraged. Final projects may include public performances, solo transcriptions, and student compositions. **This class is offered every year at Senior; it is only offered on even-numbered years at West.**

Prerequisite Courses: Students are enrolled in band, choir or orchestra, or by Instructor approval. Students should know all 12 major scales.

Students should be proficient readers of music.
Applies toward graduation requirements of: 1/2 Visual or Performing Arts credit

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BUSINESS EDUCATION

Whether you decide to start your own business, work for a small, family-run company, or sign on with a large international corporation, your future will depend on your marketable skills. Business education offers you a better insight to what real business operations entail. Coursework is relevant to real life as you enter the workforce and/or continue post-secondary education beyond high school.

Business students also have the opportunity to put these skills to the test in Business Professionals of America. Participate in competitive events, develop leadership skills, and open doors to your future. Skills learned in business classes help you earn awards in BPA that can be highlighted on college applications and resumes.

Computer Applications	**Credit 1/2**	**9, 10, 11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: “I am so glad I took this class.” “I am now prepared to type an MLA report in my English class and design a spreadsheet and chart for my science teacher.” Computer Applications will help you build a marketable skill for the business world. Students will be introduced to spreadsheets and charts using Excel, desktop publishing using Publisher, and document formatting and word processing using Word. You will be better prepared for your high school courses, college, and life. ***Don’t wait to take this course!*** You will use these skills and many more throughout your high school years and beyond.

Prerequisite Course: none

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

Advanced Computer Applications-Senior & Skyvi ew only	**Credit 1/2**	**12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Do you want to be even more prepared for college and the workforce? Learn the tricks and tools in the Microsoft Office Suite. Advanced Computer Applications emphasizes further competency in word processing, spreadsheet, and presentation activities using Word, Excel, and PowerPoint. Access database and web design activities are also introduced in this class. Learn how to automatically generate bibliographies in an MLA report, design flyers, manage and query a database and create amazing spreadsheets and charts. By using the complete Microsoft Office integrated software package students have the opportunity for more project-based applications. Course work is relevant to real life as students enter the workforce and/or continue education beyond high school.

Prerequisite Course: Computer Applications

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

Personal Finance	**Credit 1/2**	**9, 10, 11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Where does all the money go? How can you achieve your financial goals? Do you know how to manage a bank account? Will you run out of money before your bills are paid? Why does car insurance cost so much? Why do some pay less when they buy a car exactly like yours? How does the stock market work? Why is good credit so important? Should you sign a lease when you rent? Learn the answers to these questions and more! Through a fun and active curriculum students can begin to make sound financial decisions that will last for a lifetime!

Prerequisite Course: none (Computer Applications recommended.)

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

Accounting 1	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Do you want to own your business? (i.e. salon, dental practice, art studio, construction company, automotive shop, etc.) Do you want to major in business in college? Do you want to help maximize profits for a professional sports team or run a Fortune 500 company? Do you want to run the show for movie studios and track down criminals for the FBI? Banish the notion that CPAs are just here to count the money. Today's Certified Public Accountants have responsibilities that encompass far more than payroll and taxes. CPAs are taking care of business in every industry and there's no sign of a slowdown.

Prerequisite Course: none

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

Accounting 2	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Automated accounting skills will continue to be developed through the use of the computer. Students will complete end-of-year activities and a business simulation for a corporation and develop an overall picture of the total process of business systems.

Prerequisite Course: Accounting 1

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

Accounting 3 - Senior & Skyview only	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Computerized accounting (QuickBooks) is the main focus. Students will use the computer for payroll, general ledger, accounts receivable and accounts payable. Students will develop a better understanding of the accounting career ladder and how it relates to their individual goals.

Prerequisite Course: Accounting 2

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

Accounting 4 - Senior & Skyview only	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Departmentalized accounting including financial and cost accounting methods are emphasized.

Prerequisite Course: Accounting 3

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

College	Credit 1	
Accounting - West only	3 Credits @ MSU-B	11, 12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: College Accounting uses an integrated approach to teach accounting. Students first learn how businesses plan for and evaluate their operating, financing, and investing decisions and then how accounting systems gather and provide data to internal and external decision makers. This yearlong course covers all the learning objectives of a traditional college level financial accounting course, plus those from a managerial accounting course. Topics include an introduction to accounting, accounting information systems, time value of money, and accounting for merchandising firms, sales, and receivables, fixed assets, debt and equity. Other topics include statement of cash flows, financial ratios, cost-volume profit analysis and variance analysis.

Prerequisite Course: Successful completion of Account I and II, or instructor approval.

Applies toward graduation requirements of: 1 Career Technical Education Credit
Dual Credit through MSU-Billings
ACTG201 Financial Accounting - 3 Credits

Marketing	Credit 1/2	10. 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: You're about to begin an exciting journey toward learning about marketing. Marketing is all around you. You see the results of marketing in the abundance of products in your nearby shopping mall. You see marketing in the advertisements that fill your television screen, magazines, and mailbox. At home, at school, where you work, where you play—you are exposed to marketing. Yet, there is more to marketing than meets the consumer's casual eye. Next stop? A more complete and formal introduction to the basic concepts and practices of marketing.

Prerequisite Course: Computer Applications. (Advanced Computer Applications, Desktop Publishing, or Accounting 1 is ***strongly*** recommended.)

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

Managerial Science	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Managers assist teachers and students in the business labs with presentations, organizing, and peer tutoring. Entry-level management, supervision, and performance reviews are also emphasized. Interested students must have taken other business courses, apply to the instructors, and be accepted for this position.

Prerequisite Courses: Teacher approval

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

College Intro to Business – West & Senior Only	Credit 1/2 3 College Credits at MSU-B	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Interested in pursuing a career in business? Introduction to Business is a basic business course designed to acquaint students with the activities associated with a business. Students will gather a basic understanding of general business, economics, entrepreneurship, human resources, business ethics, the government's role in business, marketing, and business finance. Overall, the course gives students a broad exposure to business operations and a solid background for additional business courses.

Prerequisite Course: none

Applies toward Graduation Requirements of: 1 Career Technical Education Credit
Dual Credit through MSU-B/City College
BGEN105 Introduction to Business (3 credits)

College Advanced Computer Applications	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: College Advanced Computer Applications emphasizes further competency and industry standards using Microsoft Office. Access database and web design activities are also introduced in this class. Learn how to create useful spreadsheet formulas and charts, automatically generate bibliographies in an MLA report, manage and query a database, and design publications. By using the complete Microsoft Office integrated software package students have the opportunity for more project-based applications. Course work is relevant to real life as students enter the workforce and/or continue education beyond high school.

Prerequisite Course: Computer Applications

Applies toward Graduation Requirements of: 1 Career Technical Education credit

Dual Credit through ***Montana State University Billings/City College:***
CAPP 120 Introduction to Computers and Applications (3 credits)

Business in The 406-Skyview & Senior only	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Learn how to develop and run a real enterprise with a fun, project-based approach. This course celebrates the spirit of enterprise and helps turn today's youth into tomorrow's future leaders. Students will begin to believe in themselves and what they can accomplish by experiencing entrepreneurial and economic principles.

This course explores the basics of being a successful business owner. Topics addressed will include: defining entrepreneurship and identifying various forms of business ownership; exploring the legal environment of business and concepts of management and human resources; determining financial needs and sources of funding for your business; and preparing a business plan that helps to analyze risk and financial responsibilities.

Prerequisite Course: Computer Applications recommended

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

Business Law-West only	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Interested in the legal environment and how it relates to business? Business Law will study true situations that show you how business and personal law impacts not only business but your life as well. This introductory learning course will help you achieve an understanding of legal principles that you will use throughout your life and how business law impacts your life on a daily basis. The projects for this class will focus on extended coverage of how to analyze legal situations, how to read case citations, how to analyze ethical situations, and legal advice. Additional focus will be on the ever emerging global economy with regards to business law and the impact it has on the 21st Century. This is a fast paced course which will challenge students by combining business law and ethics.

Prerequisite Course: Computer Applications recommended

Applies toward Graduation Requirements of: 1 Career Technical Education Credit

FAMILY and CONSUMER SCIENCES

Be prepared for your future by taking advantage of the many courses offered through the Family and Consumer Sciences Department (FCS). These programs enable students to acquire broad, transferable skills for employment and personal life as well as job-specific skills in careers related to early childhood development, education, social and human services, culinary arts, foods and nutrition, food production and management, hospitality and tourism, apparel and interior design, and entrepreneurship. Students can take multiple courses along the various Career Pathways that lead to Industry Recognized Certificates (IRCs) and advanced opportunities for Dual Credits and/or Workplace Credits (Internships/Apprenticeships).

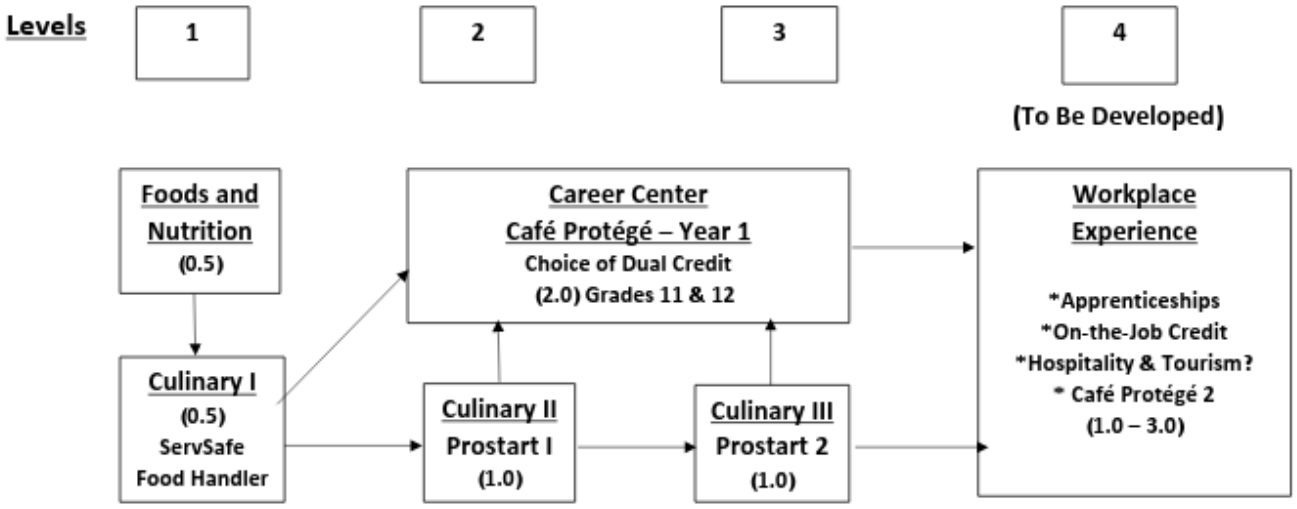
Aligned to the Billings Public School's vision that Career and Technical Education is for EVERY student, the FCS Curriculum aims to provide opportunities for both exploratory experiences and clearly identified pathways to career readiness. To that goal, the FCS curriculum offers three career clusters that articulate to the workplace and/or secondary programs.

- **Culinary Arts**
- **Interior Design**
- **Education/Human Services**

These pathways include opportunities for students to earn Industry Recognized Credentials (IRCs), complete Dual Credit coursework, and to engage in Workplace Experiences within the community.

The following pathways and the included courses align to state and national standards. For a complete list of the knowledge, skills, and learner outcomes from each course, please visit the Billings Public Schools Curriculum Website.

FAMILY AND CONSUMER SCIENCES: CULINARY PATHWAY



Foods and Nutrition	Credit ½	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course is designed to teach students how to build a lifetime of good nutrition and wellness practices while utilizing food preparation and cooking skills. Students are given the essential tools to understand why and how people need to make more practical and healthy choices in their diet and daily routines. They will work cooperatively in lab groups applying what they have learned in each focus topic. While this course provides personal enrichment, it also serves as a foundation for further training in health and culinary related fields.

Fees Charged – Lab fee will be assigned by school

Prerequisite Courses: None. Prerequisite for all other Culinary Classes except Adulting 101.

Applies toward graduation requirements of: 1 Career Technical Education credit

Culinary Arts 1	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course is designed to teach students basic food preparation skills utilizing various types of culinary equipment and a range of preparation and cooking techniques. The following areas of study are covered in this course: measuring, knife skills, cooking methods, nutrition, fruits, vegetables, breads, pastas, vegetarian and vegan dishes, desserts, pastries, and meats. While this course provides personal enrichment, it also serves as a foundation for Culinary Arts II.

Fees Charged – Lab fee will be assigned by school

Potential Industry Recognized Credential - ServSafe Food Handler

Prerequisite Courses: Foods & Nutrition

Applies toward graduation requirements of: 1 Career Technical Education credit

Culinary Arts 2	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: This course is designed to teach students about the restaurant industry through the Culinary Arts 2 program. From culinary techniques to management skills, Culinary Arts 2 industry-driven curriculum provides real-life experience opportunities and builds practical skills and a foundation that will last a lifetime. By bringing together the industry and the classroom, Culinary Arts 2 gives students a platform to discover new interests and talents to open doors for fulfilling careers. It happens through a curriculum that includes all facets of the industry and sets a high standard of excellence for students and the industry.

Fees Charged – Lab fee will be assigned by school.

Potential Industry Recognized Credential - Prostart 1

Prerequisite Courses: Foods & Nutrition and Culinary Arts 1.

Applies toward graduation requirement of: 1 Career Technical Education credit

Culinary Arts 3	Credit 1	11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This course is an extension for students who have completed prior Culinary Arts programs. Advanced application towards real-life experience opportunities and building practical skills by bringing together the industry and the classroom, Culinary Arts 3 gives students a platform to discover new interests and talents for fulfilling careers in Hospitality and Tourism.

Fees Charged -- Lab fee will be assigned by school.

Potential Industry Recognized Credential - Prostart 2

Prerequisite Courses: Culinary Arts 2.

Applies toward graduation requirement of: 1 Career Technical Education credit

Cafe Protege/ (Culinary Arts For Industry)	Credits 2 (1 credit per semester)	11, 12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: The course introduces students to commercial foodservice concepts not found in more traditional F.A.C.S programs. Classes are held off campus at City College-Montana State University Billings in a full commercial kitchen setting.

This course is an introduction to the restaurant and foodservice industry. Students will be exposed to a variety of cooking skills and techniques, language, equipment, and basic operations critical for success in the culinary arts and foodservice industry. In addition to the fun and excitement of Culinary Arts the following topics are covered as essential requirements.

Fees Charged: Each semester a lab fee is required. Chef coats and headgear will be provided.

Essential Requirements:

- Food and Workplace Safety
- Knife Skills: Beginner through Advanced
- Stocks, Sauces, and Soups
- Cooking Methods and Techniques
- Baking Principles and Fundamentals of Bakeshop Production including: Breads, Pies, Cakes, Pastries, and Cookies
- Food Cultures and Styles from Around the U.S. and the World
- Customer Service, Work Place Communication, Food Costing and Controls, Menu Planning and Marketing
- Catering Fundamentals and Buffet Service Basics

Students are urged and assisted to seek employment in local food service establishments in such roles as paid internships, job shadow and work study programs.

Students can receive dual credit (both high school graduation credit and college credit) at most major culinary schools.

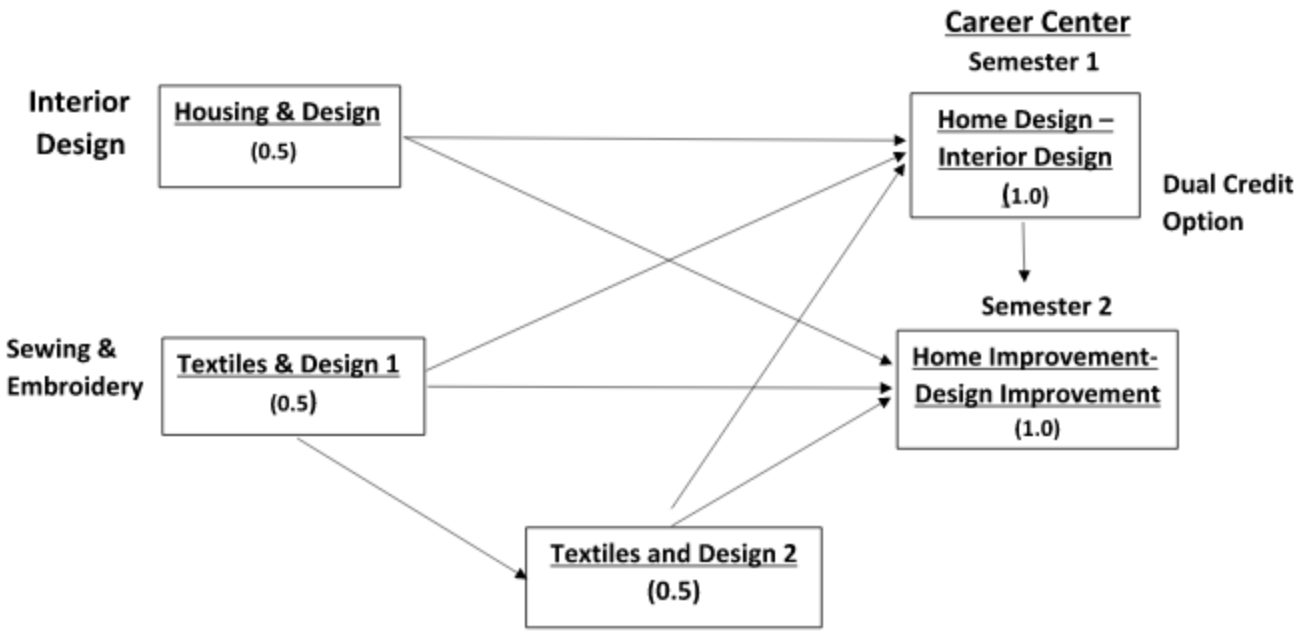
In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK / YEAR LONG CLASS

Prerequisite Courses: Priority is given to students with prior culinary coursework.

Applies toward graduation requirements of: 1 Career Technical Education credit

FAMILY AND CONSUMER SCIENCES: INTERIOR DESIGN PATHWAY



Textiles & Design 1	Credit ½	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course is for students interested in sewing for practical purposes, personal enjoyment, and/or to develop skills to be used in careers related to clothing construction, fashion merchandising, design, and retail. Students will complete three or more individual projects in creative sewing. Garment construction projects will increase in difficulty as students attain skills. Technical abilities will be enhanced through the use of sewing and embroidery machines, sergers, and other technologies. Sequencing of the course includes basic sewing machine techniques, fabric and pattern selection, interpreting pattern instructions, construction techniques (darts, zippers, hems, buttons, applying interfacing, etc.) and embroidery.

Fees Charged – Lab fee will be assigned by school

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Textiles & Design 2	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course focuses on advanced construction techniques on individually selected projects approved by the instructor. Students master the use of computerized embroidery machine and serger. Areas of study may include textile arts, formal wear, pattern redesigning, fashion design, or other related areas of student interest.

Fees Charged – Lab fee will be assigned by school

Prerequisite Courses: Textiles and Design 1

Applies toward graduation requirements of: 1 Career Technical Education credit

Housing & Design	Credit 1/2	9,10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course focuses on practical introduction to space planning, room design, and presentation. This class teaches students how to apply the elements and principles of design to personal interior design problems. Critical thinking and problem solving are integral part of the projects completed in this course. Students will complete a notebook/portfolio of designated projects. Projects may include, but are not limited to, design elements and principles, notebooks, color boards, room floor plans, and design.

Fees Charged – Lab fee will be assigned by school

Prerequisite Courses: None.

Applies toward graduation requirements of: 1 Career Technical Education credit

Home Design

Interior Design - Career Center	**Credit 1**	**11, 12**
Course Name	**Semester 1**	**Grade Level**

Course Description: This course provides skills with both a computer and hands-on approach to learning. Students complete comprehensive assignments where they apply all of the skills and knowledge obtained throughout the course. They work with community vendors to select: paint, flooring, lighting, tile, appliances, fixtures, and wallpaper for a student built house. They also learn the basics in AutoCad and Sketchup. This course is designed to teach the skills needed to be a professional in the design industry and meets the needs of students who desire to receive dual credit for a post secondary education.

Essential Requirements:

- Identify factors and characteristics that impact the interiors of a space by applying the elements and principles of design.
- Interpret written and verbal directions for drawing/modeling an interior design project.
- Demonstrate communication skills that promote positive relationships in the workplace by working in cooperative groups to implement a design plan for the Career Center student built house.
- Communicate design ideas through visual and oral presentations.
- Describe careers in the interior design industry by classifying careers that range from entry level to professional.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO - HOUR BLOCK
1st SEMESTER ONLY

Prerequisite Courses: Priority will be given to students with prior related coursework.

Applies toward graduation requirements of: 1 Career Technical Education credit

Home Improvement

Design Improvement - Career Center	**Credit 1**	**11, 12**
Course Name	**Semester 2**	**Grade Level**

Course Description: This course provides students with the essential skills and knowledge needed to make basic home improvements through a hands on approach to learning. Students will learn spatial layout and the staging process of the student built home. They will learn how to select product/material, provide an explanation of why selected, and model how to implement their selection in the work room or on site. Highlights include: tape/texture of walls, painting, wallpaper installation, tile installation, mural design, etc. Students will learn from: professional presenters, field trips to industry related companies, and working/practicing on site at the Career Center house. This class will teach basic skills necessary to maintain and enhance a home.

Essential Requirements:

- Calculate quantities, measure, order and install product.
- Student will develop skills needed to complete interior projects on site or in the workroom.
- Will learn how to understand and stay within a budget.
- Student will communicate design ideas through visual and oral presentations to professionals and peers.
- This class will analyze career options available in the home improvement industry.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO - HOUR BLOCK
2nd SECOND SEMESTER ONLY

Prerequisite Courses: Priority will be given to students with prior related coursework.

Applies toward graduation requirements of: 1 Career Technical Education credit

College Introduction to Interior Design - Career Center	Credit 1 3 Credits at Gallatin College	11, 12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: This class is designed to provide dual credit with Gallatin College. Students successfully completing Interior/Home Design and Home/Design Improvement will receive college credit for IDSN101 Intro to Interior Design at Gallatin College in Bozeman. The objective of this course is to provide a successful transition from high school to post-secondary education.

Essential Requirements:

- Extended course work utilizing Gallatin's college text
- Demonstrate an understanding of the development of architecture and interior design as professions including technical and regulatory elements, historical, current and future directions by successfully completing exams and/or projects
- Demonstrate the ability to distinguish and apply the terminology utilized in the fields of architecture and interior design
- Demonstrate an understanding and appreciation of the basic principles of architecture and interior design including space planning through the study of the design process, design principles and elements, human perception, building materials, furniture selection, textiles, lighting, color, accessories, human factors and business considerations
- Demonstrate an understanding of the elements and principles of design by successfully creating an elements and principles project
- Demonstrate an understanding of a design concept. An example of this is to create a successful concept board.
- Demonstrate an understanding of the diversity of needs and human factors in planning space with a presentation of their project. Their project and presentation will be done with proficiency.
- Demonstrate an understanding of the fundamentals of environmental design by showing a proficient understanding through project/question based evaluation.

In the event of over enrollment, first criteria for consideration shall be current daily attendance. Attendance is required and documented.

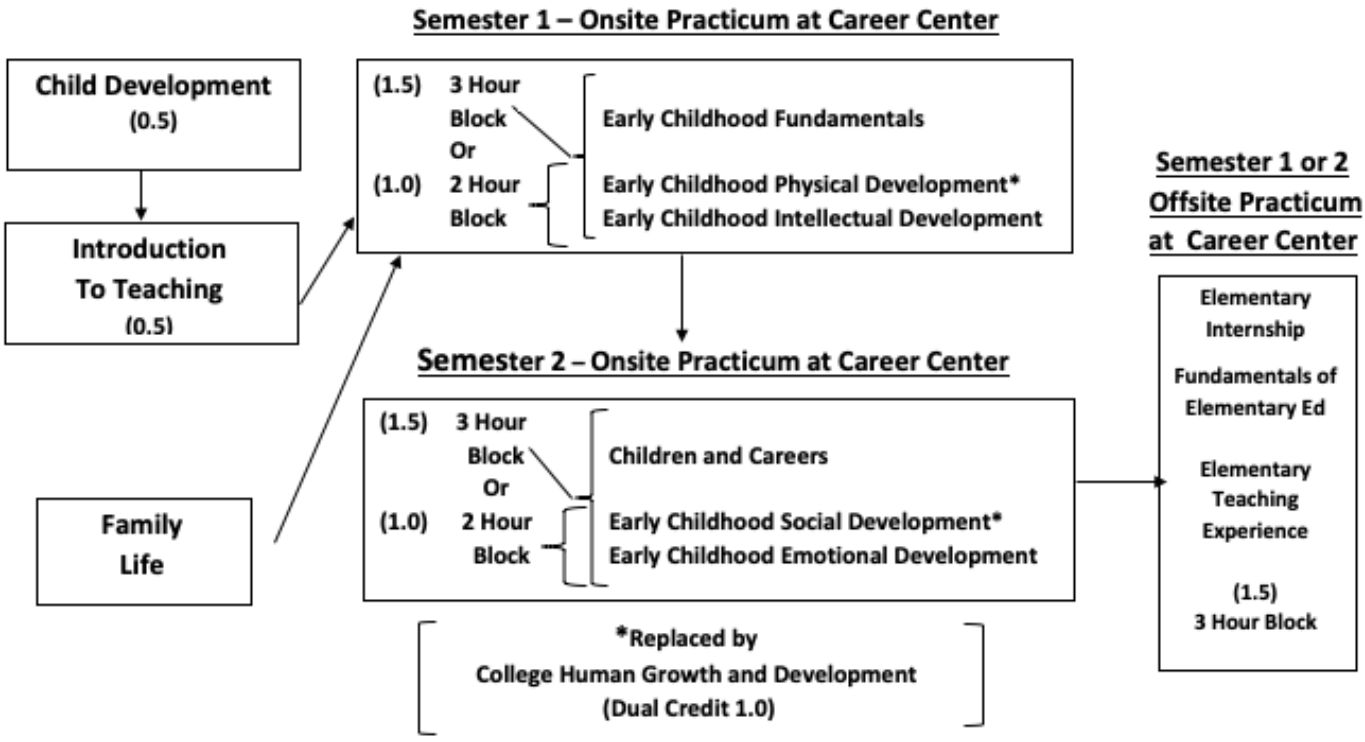
PART OF A TWO-HOUR BLOCK

- ➢ **to be taken with Home Design - Semester 1 AND**
- ➢ **to be taken with Home Improvement - Semester 2**

Prerequisite Courses: Priority will be given to students with prior related coursework.

Applies toward graduation requirements of: 1 Career Technical Education credit

FACS: Education/Human Services Pathways



Family Life	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Do you ever wonder who you really are and how you will make all the decisions necessary to get the life you dream of? Family Life is the course for you! This course will give you insight into relevant topics such as goal setting, relationships, marriage, teen pregnancy, and financial planning. Other topics such as divorce and how to handle various crises will also be explored. Discussion will be a major learning tool as well as videos, internet searches, the textbook, and guest speakers.

Fees Charged - Lab fee will be assigned by school.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Child Development	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Do you want to be prepared for one of the most important jobs you will ever undertake? Child Development is a course designed to prepare you not only for parenting but also for employment skills in any field that relates to working with children. This class focuses on the readiness for parenting, exploration of pregnancy, and caring for, nurturing, and guiding the child from birth to age three. You will also evaluate childcare facilities and plan a day care for the child from birth to three. In this course you will also be exploring the world of children through videos, guest speakers, field trips and the “Real Care Simulator” (Baby Think It Over) and hands-on activities with children.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Intro to Teaching	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course is an introduction to exploring and experiencing the career of teaching or training. Participants must prepare a portfolio of the teaching/training career, prepare and execute a complete lesson plan and an oral presentation. All students will also complete shadowing experiences of a “best practices” educator.

Prerequisites: Child Development is recommended.

Applies toward graduation requirements of: 1 Career Technical Education credit

Early Child Physical Development
Early Child Intellectual Development

-Career Center-	**Credit 1**	**11, 12**
Course Name	**Semester 1**	**Grade Level**

Course Description: You will gain practical teaching experience in one of the two Career Center Preschools, after learning teaching techniques in the high school classroom pertaining to children's physical, social, emotional and cognitive development. Emphasis is placed on education through physical and intellectual development. Opportunities are provided to learn what is entailed in various specialized fields such as special education, speech, physical and occupational therapies and pediatric nursing. Whatever path in life you choose children will likely be a part of it; don't miss this opportunity to brighten your life and the lives of many children.

Essential Requirements:

- Early childhood education training
- Teaching in the preschool
- Lesson planning for preschool
- Observation of preschool children
- Study of areas of child development
- Written evaluations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit.

Early Child Fundamentals
Early Child Physical Development
Early Child Intellectual Development

-Career Center-	**Credit 1.5**	**11, 12**
Course Name	**Semester 1**	**Grade Level**

Course Description: Along with gaining practical teaching experience in the Career Center Preschools and learning techniques pertaining to children's development, this class stresses thematic lesson planning and teaching through centers. Opportunities are provided detailing specialized fields such as special education, speech, physical and occupational therapies and pediatric nursing. This class provides in depth instruction for those considering early childhood education.

Essential Requirements:

- Same as listed above.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE - HOUR BLOCK

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit.

Early Child Social Development
Early Child Emotional Development

-Career Center-	**Credit 1**	**11, 12**
Course Name	**Semester 2**	**Grade Level**

Course Description: You will gain practical teaching experience in one of the two Career Center Preschools, after learning teaching techniques in the high school classroom pertaining to children's physical, social, emotional and cognitive development. Emphasis is placed on education through social and emotional development. Opportunities are provided to learn what is entailed in various specialized fields such as special education, speech, physical and occupational therapies and pediatric nursing. Whatever path in life you choose children will likely be a part of it; don't miss this opportunity to brighten your life and the lives of many children.

Essential Requirements:

- Early childhood education training
- Teaching in the preschool
- Lesson planning for preschool
- Observation of preschool children
- Study of areas of child development
- Written evaluations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Children & Careers
Early Child Social Development
Early Child Emotional Development

-Career Center-	**Credit 1.5**	**11, 12**
Course Name	**Semester 2**	**Grade Level**

Course Description: Along with gaining practical teaching experience in the Career Center Preschools and learning techniques pertaining to children's development, this class stresses thematic lesson planning and teaching through centers. Opportunities are provided to learn what is entailed in various specialized fields such as special education, speech, physical and occupational therapies and pediatric nursing. This class provides in depth instruction for those considering early childhood education.

Essential Requirements:

- Same as listed above.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Elementary Internship
Fundamentals of Elementary Education
Elementary Teaching Techniques

-Career Center-	**Credit 1.5**	**12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: In this internship you are placed with a master teacher in a preoperational age classroom. The academic study emphasized is a foundation in working with the primary age level child. This content is applied to the teaching opportunity in an elementary school.

Essential Requirements:

- Lesson planning, observing, teaching preoperational children
- Study of areas of child development
- Written evaluations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK

Prerequisite Courses: 2 semesters of Early Childhood classes - Instructor discretion, with a Grade of “B” or better in fall & spring Early Childhood Education courses.

Applies toward graduation requirements of: 1 Career Technical Education credit

College EDU Human Growth & Development -Career Center-	Credit 1 3 Credits @ MSU-B	11, 12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: This class presents a comprehensive introduction to the study of human development including the developmental capabilities and needs of humans at different ages with respect to the physical, psychomotor, cognitive, social, emotional, and psychological domains that affect all education. The course includes 4.5 - 5 hrs per week lab at the Career Center Preschool.

Essential Requirements:

- Early childhood education training
- Teaching in the preschool
- Lesson planning for preschool
- Observation of preschool children
- Study of areas of child development
- Written evaluations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

One Hour Class that is taken as part of a Two Hour Block (with Early Child Intellectual Development-1st Semester or part of a Three Hour Block (with Early Child Fundamentals and Early Child Intellectual Development 1st Semester). 2nd Semester – This class is taken with Early Child Emotional Development in a Two Hour Block or part of a Three Hour Block – with Child and Careers and Early Child Emotional Development.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Stand Alone FACS Courses

Made In Montana - Skyview Only	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Develop your creative talents into a business. Each student will learn the proper technique, equipment, terminology, versatility, and selection of quality materials for each craft skill. This will allow students to develop skills and experience aspects of developing a business. Activities include: organizing a small business, producing products and/or providing services, and managing a small business. Student leadership (FCCLA) may be an integral part of this course by using the Start Event “Entrepreneurship” project.

Fees Charged – Lab fee will be assigned by school.

Projects for Made in Montana may vary due to time and resources.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Adulting 101	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course is designed to provide skills to live independently after high school whether away at college or on their own. This course covers nutrition and basic meal preparation, basic clothing repair, and money management.

Fees Charged – Lab fee will be assigned by school.

Prerequisite Courses: None

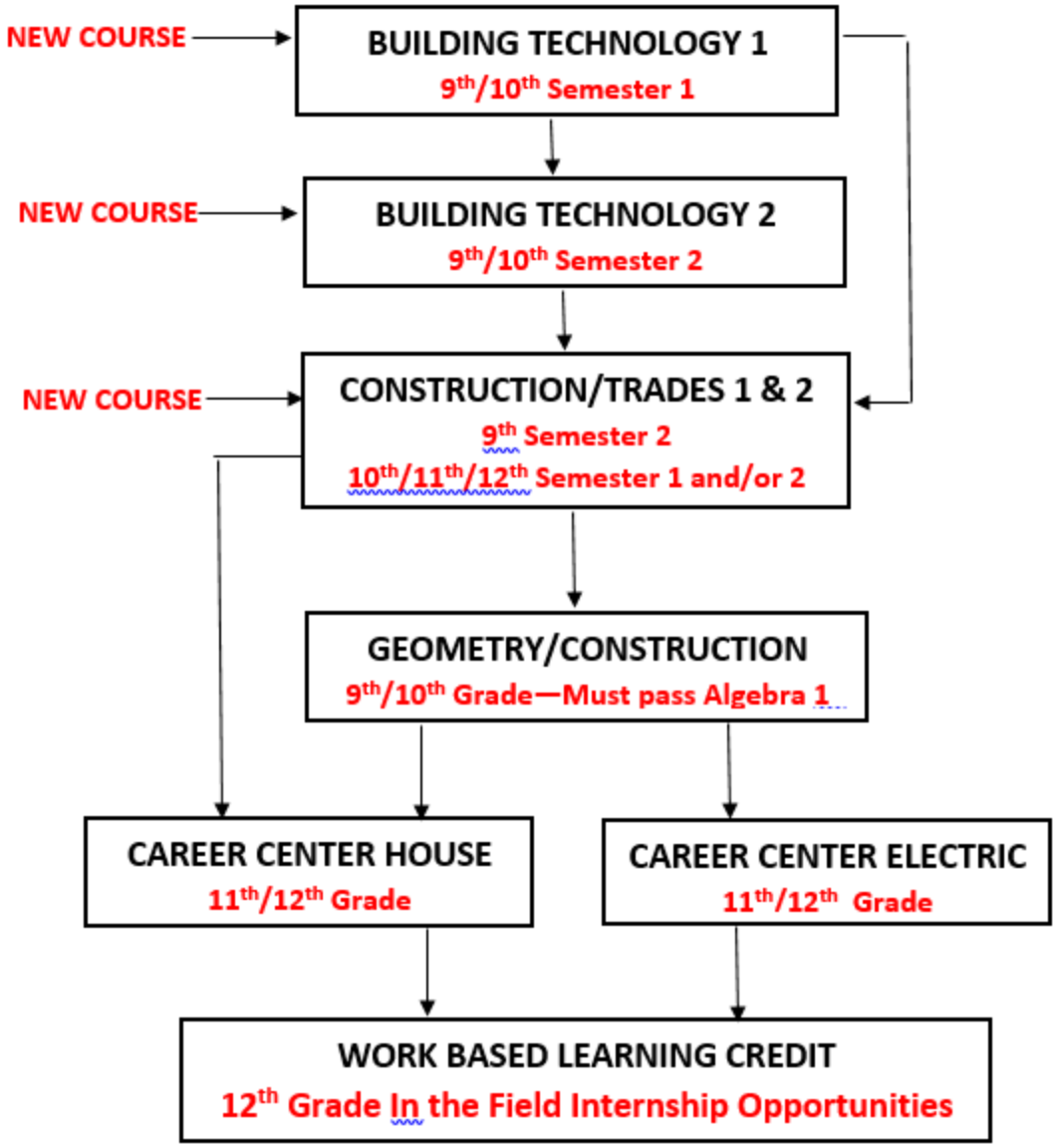
Applies toward graduation requirements of: 1 Career Technical Education credit

TECHNOLOGY EDUCATION

Students today need to be prepared for the future. They will need to have basic skills in areas such as: computers, design, building and testing different products, brainstorming, communication, computer controlled systems, robotics, lasers, and many other technologies in order to be prepared for the future. Most of these can be accomplished in the classes offered in the Technology Education area.

All of the classes offered in the Technology Education area are hands on activities.
If these classes sound like they are something you would like to do to prepare for your future, sign up today.

BPS CONSTRUCTION TECH PATHWAY



*Construction
*Electrical
*Plumbing
*HVAC
*Concrete/Masonry
*Design & Drafting

Building Tech 1 (Pre-Construction)	Credit 1/2	9, 10
Course Name	**Semester 1**	**Grade Level**

Course Description: Students who want to build houses, learn basic woodworking skills, or be in the carpentry trade will enjoy learning the skills it takes to successfully design and build from scratch. This is an entry level program oriented around the basic building blocks necessary to pursue a career in construction. Students will discover basic wiring, simple framing, and product production. Building Tech 1 is about sequential project planning, trade math, tool identification and safety use, and small project completion. Time honored building concepts and procedures will be taught and measured in pursuit of a work based learning environment leading to industry employment.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Building Tech 2 (Pre-Construction 2)	Credit 1/2	9, 10
Course Name	**Semester 2**	**Grade Level**

Course Description: Building Tech 2 takes the building blocks of Building Tech 1 to a more advanced level. This class will incorporate design basics of both construction and fabrication. Students will continue to challenge themselves to gain a better understanding of the skills and jobs in the construction industry. Students will explore manufacturing processes, small project designs, and entrepreneurial concepts.

Prerequisite Courses: Building Tech 1

Applies toward graduation requirements of: 1 Career Technical Education credit

Construction/Trades 1 & 2	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Construction is a program that provides employment preparation and technical training to high school students for a wide range of opportunities within the construction industry. This course will focus on employment preparation skills for entering the workforce in a number of trades. Some areas of focus will be safety certifications, measuring, and plan reading. Residential and commercial construction experience will include fabrication, installation, service or maintenance and warehouse opportunities. Hands on training will be emphasized throughout the course with training related to carpentry, cabinetry, framing, roofing, flooring, windows and doors, molding and millwork. Some electrical, plumbing and HVAC will also be constructed throughout this course.

This course will work directly with industry partners helping to provide career opportunities as well as using the High School Career Coaches as job preparation specialists.

Prerequisite Courses: Building Tech 1

Applies toward graduation requirements of: 1 Career Technical Education credit

Technical Geometry Geometry in Construction-Career Center	Credits 1 (½ Math-½ Career Technical Education each semester	9, 10, 11, 12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: This course is designed to show the relevance of Geometry through a variety of practical applications related to but not limited to the construction industries. Students will be: participating in hand-on activities, working in a classroom & shop setting, participating in the construction of a house, and investigating business components in construction and related industries. Students who are interested in architecture, interior design, engineering, construction management, drafting, building trades (electrical, plumbing, etc.) as well as all aspects of manufacturing would benefit from this course. The objectives of this course are to promote academic rigor and real world relevance by having students solve multi-step problems, engage in math concepts that appear in different phases of construction and work in a team setting.

Essential Requirements:

- Students will participate in all aspects of safety, related to construction and manufacturing industries.
- Students will work in shop and construction site environments.
- Students will successfully complete the Geometry requirements as indicated in the All Billings Curriculum.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK / YEAR LONG CLASS
FALL ENROLLMENT ONLY

Prerequisite Courses: Algebra 1 with a “C” grade or better

Applies toward graduation requirements of: 2 Math credits and 1 Career Technical Education credit

Construction Fundamentals 1
Carpentry 1 **Credits 1 1/2**

Construction Technique 1- Career Center	**First Year - Semester 1**	**11, 12**
Course Name	**Semester 1**	**Grade Level**

Course Description: First year house construction students will work hands-on in the construction of this year's student built house. Students will develop skills and valuable construction knowledge in the first phases of the building construction trades. Students will learn the dynamics of a real residential house construction site. Students will receive on the job training as they learn the trades and experience the work ethics of residential construction.

Essential Requirements:

- Students will complete: framing, concrete finishing, Western balloon framing, roofing, heating and cooling (mechanical work), wiring, insulation, drywall hanging, drywall perfataping.
- Ability to work safely, independently and without constant supervision.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented**.**

THREE – HOUR BLOCK - NO EXCEPTIONS!

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Construction Fundamentals 2
Carpentry 2 **Credits 1 1/2**
Construction Technique 2- Career Center **First Year - Semester 2** **11, 12**

Course Name	**Semester 2**	**Grade Level**

Course Description: First year house construction students will continue to work hands-on in the construction of this year's student built house. Students will develop skills and valuable construction knowledge in the remaining phases of the building construction trades. Students will learn the dynamics of a real residential house construction site. Students will receive on the job training as they learn the trades and experience the work ethics of residential construction.

Essential Requirements:

- Students will complete: drywall, perfataping, painting, trim, carpentry, cabinet installation, floor covering, cultured stone applications, finish plumbing, concrete framing, deck construction, detailing out a house

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK - NO EXCEPTIONS!

Prerequisite Courses: Construction Fundamentals 1, Carpentry 1, Construction Technique 1 with a grade of “C” or better, or consent of instructor with recommendation of administrator/counselor.

Applies toward graduation requirements of: 1 Career Technical Education credit

Building Trades 1
House Building 1 **Credits 1 1/2**
Construction Technique 3-Career Center **Second Year - Semester 1** **12**

Course Name	**Semester 1**	**Grade Level**

Course Description: Second year house construction students will work with first year students to complete this year's student built house. The second year student will serve as a leader to demonstrate good work ethics and help guide first year students through the building construction trades. Second year students will expand their knowledge and refine their skills as they work to complete a second house. The second year student should achieve greater proficiency in their work and the development of their skills.

Essential Requirements:

- Students will complete: framing, concrete finishing, Western balloon framing, roofing, heating and cooling (mechanical work), wiring, insulation, drywall hanging, drywall perfataping.
- Ability to work safely, independently and without constant supervision.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK FOR 2ND YEAR STUDENTS – NO EXCEPTIONS!

Prerequisite Courses: Successful completion of one semester of Construction Fundamentals 1, Carpentry 1, Construction Technique 1, or Construction Fundamentals 2, Carpentry 2, Construction Technique 2 with a "C" grade or better
consent of instructor with recommendation of counselor/administrator.

Applies toward graduation requirements of: 1 Career Technical Education credit

Building Trades 2
House Building 2 **Credits 1 1/2**
Construction Technique 4-Career Center **Second Year - Semester 2** **12**

Course Name	**Semester 2**	**Grade Level**

Course Description: Second year house construction students will receive the hands-on training that comes with working through the last phases of house construction. Second year students will experience the challenges of house construction with a greater level of understanding. Students will benefit from the development of skills with a higher proficiency and the diverse knowledge that comes with two years of training. Students will enter the job market with confidence and success.

Essential Requirements:

- Students will complete: drywall perfataping, painting, trim carpentry, cabinet installation, floorcoverings, cultured stone applications, finish plumbing, concrete framing, deck construction, detailing out a house.
- Ability to work safely, independently and without constant supervision.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK FOR 2ND YEAR STUDENTS - NO EXCEPTIONS!

Prerequisite Courses: Successful completion of Building Trades 1, House Building 1, Construction Technique 3 with a grade of “C” or better or consent of instructor with recommendation of counselor/administrator.

Applies toward graduation requirements of: 1 Career Technical Education credit

RESERVED FOR DRAFTING

Drafting 1	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The students will learn the basics of both mechanical and architectural drafting using AutoCAD, a computer-aided drafting program. Topics in traditional drafting include sketching, lettering multi-view projection, dimensioning, and residential planning and design CAD topics include entity creation, editing, use of layers, automatic dimensioning, and called plotting. Students will also be introduced to 3D design.

This class will be of interest to students planning careers in engineering, architecture, interior design, graphic arts, landscape design, building trades and many others.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Drafting 2	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: The student will continue their drafting in both mechanical and architectural areas using traditional drafting and AutoCAD. Topics include multi-view projections, sectioning, auxiliary views, dimensioning, isometric projections, oblique designs, and architectural plans, surface intersections and development, architectural elevations and roof plans.

Prerequisite Courses: Successful completion of Drafting 1

Applies toward graduation requirements of: 1 Career Technical Education credit

Architectural Drafting	Credit 1/2	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students interested in a career in Architecture or related fields are strongly encouraged to take this course. The student will study advanced drafting methods in both mechanical and architectural areas. Topics include architectural elevations, site planning and modeling. Students will create a complete set of house plans including all internal systems and complete a scale model, utilizing precision tools such as scales and laser engravers/cutters. 3D software is used for modeling as well.

Essential Requirements:
3D design
Architectural plans, elevations and cross sections
Scale modeling
Teamwork to accomplish a common goal

Prerequisite Courses: Successful completion of Drafting 2

Applies toward graduation requirements of: 1 Career Technical Education credit

Engineering Drafting	Credit 1/2	10, 11, 12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: Students interested in a career in Engineering or a related field are strongly encouraged to take this course. The student will study a broad array of engineering drafting areas. The emphasis is on 3D design, 3D printing and CNC machining. The student will produce a set of portfolio quality drawings using both traditional and computer-aided means, emphasizing the engineering and design processes. Students will also create a series of 3D prototypes using CNC equipment and 3D printers.

Essential Requirements:
Advanced CAD, both 2D and 3D, and traditional drafting techniques
Total project planning and presentation
Creation of a drafting portfolio, including 2D and 3D projects
Design and creation of a CNC project, use of 3D modeling and Design software

Prerequisite Courses: Successful completion of Drafting 2

Applies toward graduation requirements of: 1 Career Technical Education credit

RESERVED FOR COMPUTER PROGRAMMING

Technology Lab	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Technology Lab provides the student with exposure to a variety of technical areas. Each activity ties to one or more classes. This allows students to try out a topic before committing to a semester course. A variety of software programs and simulations are utilized as well as computer hardware and programmable robots.

Major Topics Include:
Robotics, web page design, animation, design and problem solving, introductory programming, computer hardware, graphic design, drafting and pre-engineering.
No prior experience is necessary and each activity lasts approximately 2 weeks.

Prerequisite Courses: None. Completion of Algebra 1 or higher is recommended.

Applies toward graduation requirements of: 1 Career Technical Education credit

Computer Programming 1	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: The students will learn to code and debug programs for the PC. The logic involved in writing programs is developed through the structured format of the Blitz 3D programming language. Students will learn to use programming to solve practical problems and to introduce potential career paths in the Information Technology (IT) industry. The course is designed to teach a “structured” approach to writing programs so that skills learned can easily be transferred to other languages and computer applications.) At the end of the semester students develop a final project, usually a game or useful application.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Computer Programming 2	Credit 1/2	9, 10, 11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: The coursework starts where Computer Programming 1 leaves off and involves problems that challenge the student in Blitz 3D and introduces them to advanced computer programming concepts. The emphasis in on a “structured” approach to programming so that skills learned can easily be transferred to other computer languages and applications. At the end of the semester students develop a final project, usually a game or useful application.

Prerequisite Courses: Successful completion of Computer Programming 1

Applies toward graduation requirements of: 1 Career Technical Education credit

Computer Programming 3	Credit 1/2	10, 11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: Students expand language knowledge base by creating apps for mobile platforms using AppGameKit. Hardware/software constraints are examined and integrated into software development. Students finish the semester by developing a project of their own choosing, usually a game or useful app.

Prerequisite Courses: Successful completion of Computer Programming 2

Applies toward graduation requirements of: 1 Career Technical Education credit

Computer Programming 4	Credit 1/2	10, 11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: Students in Computer Programming 4 will explore the integration of hardware and software in a fast paced hands-on environment. Exploration of electronics will be coupled with embedded software written by the students to meet design parameters. Students will program microprocessor controllers and use sensors to build digital projects, including robots, to solve designated problems.

Prerequisite Courses: Successful completion of Computer Programming 3

Applies toward graduation requirements of: 1 Career Technical Education credit

OTHER ELECTIVES

University Connection	Credit ½ Each Semester	11, 12
Course Name	**Semesters 1 and/or 2**	**Grade Level**

Course Description: This course is designed to allow students to seek dual credit through college and university systems while enrolled in high school. Please contact your counselor if you are seeking dual credit for a university course while enrolled in high school.

Essential Requirements:

- Students cannot earn credit for courses that are offered at the home school
- Students may earn dual credit if declared in advance
- Students attend class on college campus or online through college
- Students are responsible for tuition and transportation

Prerequisite Courses: Counselor and administrative approval

Applies toward graduation requirements of: 7 Elective credits

Bear Buddies - West	Credit ½ Each Semester	11, 12
Course Name	**Semesters 1 and/or 2**	**Grade Level**

Course Description: This mentorship program is an extremely valuable, positive and life changing experience for our high school students. It is equally meaningful to the elementary and middle school students who are matched with these high school students.

Each high school student will be matched with an elementary or middle school classroom where they will mentor student(s) assigned to them. The “Bear Buddies” class will be scheduled in the school day for one class period and students will travel to their school placement and return to West High for their remaining classes.

Prerequisite Courses: Applicants will complete a “Bear Buddies” application that will be reviewed by the counselor in charge of this program along with other educational professionals from the placement schools to evaluate and determine who will be interviewed. A student’s attendance, academic performance, involvement inside and outside of school, and presentation in their interview will be part of the decision process of who will be placed. Character references are required and reviewed as part of the overall screening process. Applicants need to have their own transportation. Once accepted, applicants are required to complete an orientation/training process that is initiated at West High and continues at the schools they are placed. We reserve the right to cancel any match at any time if necessary due to issues with attendance or student conduct. We also can reject an application and not match a high school student to a placement.

Students are expected to remain in this course the full year; can be added for second semester but not dropped.

Applies toward graduation requirements of: 7 Elective Credits

Forensics/Speech	Credit 1/2	9, 10, 11, 12
Course Name	**Semesters 1 &/or 2**	**Grade Level**

Course Description: Speech is a semester course for those wishing to work on their public speaking skills. Interpretation of literature, improvisation, and impromptu speaking, as well as formal speaking are covered. This course is for that student who is highly motivated and interested in developing skills for performing before an audience.

Prerequisite Courses: Instructor will observe students for demonstrated desire to compete

Applies toward graduation requirements of: 7 Elective credits

Forensics/Debate	Credit 1/2	9, 10, 11, 12
Course Name	**Semesters 1**	**Grade Level**

Course Description: Debate is a semester course for students who wish to receive extensive training in "Competitive" Debate and to perform in competition throughout the State. This course is for that student who is highly motivated and interested in developing skills for debating before judges.

Prerequisite Courses: Instructor will observe students for demonstrated desire to compete.

Applies toward graduation requirements of: 7 Elective credits

College Intro to Public Speaking	Credits 1/2 3 Credits @ MSU-Billings	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Students develop speaking abilities as they acquire an understanding of basic rhetorical theory and its application in a variety of speech situations. Listening, speaking, and critiquing abilities are emphasized. This course addresses the following topics: speech preparation and delivery, forming and fielding questions, audience analysis, listening skills, critiquing and speaker anxiety.

This course is the equivalent of COMX 111 Introduction to Public Speaking-(3 Credits) at MSU-Billings

Prerequisite Courses: None

Applies toward graduation requirements of: ½ Elective Credit

NEWSPAPER JOURNALISM

Bronc Express - Senior	Credit 1	10, 11, 12
Course Name	**Semesters 1 & 2**	**Grade Level**

Course Description: This course is designed to teach the skills necessary to work as a member of a publication team. Along with publishing the school newspaper, students design the newspaper and magazine productions, set publishing dates and adhere to them, sell advertising, determine article topics, research topics, conduct interviews, write and edit articles weekly, take and create press ready photographs, and design and prepare pages for publication. Emphasis is placed on learning and using technology. Students gain a good working knowledge of computers, digital cameras, scanners, and appropriate software.

Prerequisite Courses: Minimum of a C in English. Students must also realize that the class requires some after school time.

Applies toward graduation requirements of: 7 Elective Credits

YEARBOOK JOURNALISM

Bronc Express – Senior	Credit 1	10, 11, 12
Wingspan - Skyview	Credit 1	10, 11, 12
Westward Annual - West	Credit 1	10, 11, 12
Course Name	**Semesters 1 & 2**	**Grade Level**

Course Description: This course is designed to teach the skills necessary to work as a member of a publication team including writing articles, designing ads, designing paper layouts, taking photographs, interviewing, proofreading, sales, fundraising, and other necessary tasks to produce a quality yearbook.

Prerequisite Courses: “C” average in English. Students must also realize that the class requires some after-school time and peer to peer sales.

Applies toward graduation requirements of: 7 Elective Credits

Peer Tutoring Academic	Credit 1/2	11, 12
Course Name	**Semesters 1 or 2**	**Grade Level**

Course Description: Peer Tutoring Academic is a class for junior and senior students who would enjoy working as an assistant mentor in a classroom with students enrolled. Academic peer tutors would work closely with the classroom teacher to make sure he/she understands expectations. Academic peer tutors would work with struggling students on an individual or small group basis. It is imperative that peer tutors are present on a daily basis because students and teachers rely on you. (Peer Tutors will not perform teacher aide duties or work on personal homework.)

Prerequisites:

- ❖ Strong Attendance History

Applies toward graduation requirements of: 7 Elective credits

Young Families	Credit 1	9, 10, 11, 12
Course Name	**Semesters 1 & 2**	**Grade Level**

Course Description: A program designed to meet the needs of pregnant and parenting students. Pregnant students receive a complete prenatal and childbirth education curriculum along with looking at the options of adoption and parenting. Parents have a quality day-care in which to learn hands-on parenting skills and to leave their infants while attending required classes at their home school.
Students receive 1/2 credit per hour and attend 2 hours per day for a maximum total of four semesters. (No more than 2 credits).

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective credits

Workplace Experience Credit	Credit 1/2	Grade 11 or 12
Course Name	**Semesters 1 or 2**	**Grade Level**

Course Description: Workplace Experience Credit provides students with work experience in a field related to the career cluster/pathway of interest. Course outcomes and goals are set cooperatively by the student, sponsoring teacher, and partnering business. Work Experience is non-paid or paid work experience in the form of a high school elective class. Billings Public Schools students have the opportunity to participate in a field internship, which enables them to leave campus and apply their skills in an off-campus professional industry setting. Interns are required to complete a minimum of total 90 hours per semester with the majority of that time in the workplace. These courses may include classroom activities with the sponsoring teacher, involving further study of the field or discussion regarding experiences that students encounter in the workplace. Interns are supported throughout the program by their instructor and are graded on hours worked, reflections, and most importantly, evaluations by their supervisors. Students earn course credit for their experience, as well as gain valuable work experience to add to their resumes.

Coordination of this course credit will be handled by the school's respective Career Coach with support from the associate and counselors.

Prerequisite Qualifications: Student must be in 11th or 12th grade in good standing and on track to graduate and should have successfully completed prior course work in the career cluster/pathway of interest.

Sponsoring teacher must meet the licensure requirements (Ag-Ed, Business, Marketing, Graphics, Culinary, FCS, Tech Ed, Health Sciences, Performing Arts, Science, IT, and Engineering) of the career cluster/pathway that the student is requesting credit.

Partner Business, whether offering a paid or unpaid opportunity, must be willing to submit background checks for themselves and any related employee, or have their own background check process in place that meets the district's threshold for acceptance.

Applies toward graduation requirements of: 7 Elective Credits

Academic Success	Credit 1/2	9, 10
Course Name	**Semesters 1 & 2**	**Grade Level**

Course Description: This class is designed to assist students who need to acquire study skills needed for future success in high school and/or college. The class time is spent teaching students various study skills, e.g., organization, time management, note taking, test taking, use of mnemonic devices, computer 'usage', self-evaluation, and paraphrasing. There is a built-in system of accountability which comes from regular progress checks with the classroom teachers, frequent contact with parents, and monitoring of work when the student is in this class. The ultimate goal is to foster a sense of responsibility on the part of the individual student.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective credits

+Learning Strategies	Credit 1/2	9, 10, 11, 12
Course Name	**Semesters 1 or 2**	**Grade Level**

Course Description: The Learning Strategies class provides an opportunity for a student with an IEP to learn techniques to acquire process and output learning. Students are also given assistance in their mainstream classes. Students whose schedule includes several mainstream classes are encouraged to enroll in this class.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective credits

+Career Vistas 1	Credit 1/2	9
Course Name	**Semesters 1 or 2**	**Grade Level**

Course Description: The curriculum in Career Vistas 1 has been developed to meet the needs of many students with IEPs. This course has been designed to provide students with content that is directly related to the world of work and to offer a variety of experiences in obtaining necessary skills to be a successfully employed adult.
Activities planned and executed in Career Vistas 1 will be directly related to helping students obtain information which will enable them to make informed vocational choices.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective credits

+Career Vistas 2 - Senior & West	Credit 1/2	10
Course Name	**Semesters 1 or 2**	**Grade Level**

Course Description: The curriculum of Career Vistas 2 was developed for students who have IEPs, with exploratory vocational experiences. Students will research vocational areas, shadow workers, and evaluate their own interests and aptitudes.

Students completing Career Vistas 2 will demonstrate the ability to choose vocational areas appropriate to individual interest and strengths.

Prerequisite Courses: None

Applies toward graduation requirements of: 7 Elective credits

CAREER CENTER COURSES

Jobs for Montana's Graduates	Credits 1/2 (each semester)	11, 12
Course Name	**Semester 1 and/or 2**	**Grade Level**

Course Description: The Jobs for Montana's Graduates (JMG) program assists Montana high school students in preparing for life after high school by giving students practical experience with: 21st Century Work/Survival Skills, Entrepreneurship, and Career and Life Exploration. The course is for 11th and 12th grade students who are interested in successfully transitioning from school to work/military or with continuing their education. It also assists struggling students by helping them stay in school and graduate. Ideally, students will come out of the class with some ideas for what they want their life to look like and what career or education they would like to pursue after graduation.

Essential Requirements:

- Employability Skills Curriculum - Career Development, Job Attainment (getting a job), Job Survival (keeping a job), Basic Competencies (including math, reading, writing), Leadership, Self-Development, and Personal Skills.
- Entrepreneurial Skills Curriculum - Youth Entrepreneurs curriculum teaches students about economic thinking and gives basic skills required to pursue business ideas. Students experience a market economy in the classroom while participating in activities that allow students to learn while doing. Curriculum culminates in students participating in a Market Day where students have an opportunity to run their own business.
- Montana Career Association - a motivational student organization which fosters the development of leadership, decision-making, assertiveness skills, provides recognition for achievement, and builds self-esteem.
- Job Development and Placement - Job Shadowing experiences that help build critical work skills for future success.
- Post Graduation follow-up - graduates commit to following-up with the JMG teacher for 9 months post graduation.
- Active and productive partnership between business and education.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Principles of the Biomedical Sciences	Credit 1	9, 10, 11, 12
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: Principles of Biomedical Science (PBS) is a rigorous, fast-paced full-year course intended to provide a basic foundation for students interested in possibly considering pursuing a future medically related and/or healthcare career. This course serves to afford the opportunity to gain knowledge and skills in fields such as biology, anatomy and physiology, genetics, microbiology, and epidemiology as well as engage students in how this content can be applied to real-world situations, cases, and problems. Through both individual and collaborative team activities, projects, and problems, students will take on the role of different biomedical professionals to tackle real-world challenges they commonly face in the field. Students will work with some of the same common tools and equipment used in hospitals and labs as they engage in relevant hands-on work. They will be challenged in various scenarios including applying common forensic science methods to investigate the health history and eventual death of a fictitious person, diagnosing and proposing treatment to patients in a family medical practice, tracking down and containing a medical outbreak at a local hospital, stabilizing a patient during an emergency, and collaborating with others to design solutions to local and global medical problems.

Students should be prepared for frequent homework as well as quizzes, tests, and technical writing assignments.

Because the course curriculum is only available online, it is essential that students have reliable and consistent access to a home computer as well as internet access.

The entirety of this course must be successfully completed in order to take the subsequent courses, “Human Body Systems” followed by “Medical Interventions”. It is also a suggested prerequisite for other health science courses offered at the Career Center. This course is aligned with educational standards of the: NGSS, Common Core, and National Consortium for Health Science Education.

Essential Requirements:

- An ability to work well in small groups with peers.
- An ability to work independently and be self-motivated, including appropriate use of time provided in class, as well as managing time and workflow outside of school hours to complete assigned tasks in the time allotted.
- An ability to follow lab safety protocols.
- An ability to perform basic computer skills.

In the event of over enrollment **first criteria** for consideration shall be prior year’s daily attendance, followed by performance in prior science, math, and English courses.

ONE – HOUR CLASS
STUDENTS MAY ENROLL IN FALL ONLY

Prerequisite Courses:

- Successful completion of grade level appropriate science class with a ‘C’ or better.
- Successful completion of grade-level appropriate math class with a ‘C’ or better.
- Successful completion of all previous years of English class with a ‘C’ or better.

Applies toward graduation requirements of: 1 Career Technical Education Credit

- Concurrent enrollment in PBS and HBS is only allowed with the course instructor/administrator approval.
- Attendance is very important to a student’s success in this course.
- If the student does not have a computer, the instructor will make arrangements to check out a school computer with completion of a parent permission slip.

Human Body Systems	**Credit 1**	**10, 11, 12**
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: By exploring science in action, students work through real-world medical cases by researching prevention and treatment options of common systemic diseases, designing and carrying out experiments, investigating structures and functions of the human body, dissecting a number of organs and body parts, and using data acquisition equipment and software to monitor a variety of body functions. Over 40 related healthcare careers are embedded in the activities performed. This course challenges students to think critically through a combination of active learning activities and labs. As a result there is very little time devoted to lecture. Students should expect frequent homework as well as quizzes, tests, and technical writing assignments. It is designed to provide a scientific foundation for the subsequent biomedical science course, "Medical Interventions". Because this course is not textbook based, it is essential that students have reliable and consistent access to a computer and the internet at home.

The six units cover the following specific concepts: **Identify** (anatomical and directional terminology, overview of all body systems, histology, skeletal system, forensic anthropology, DNA/PCR/gel electrophoresis, biometrics); **Communication** (brain, nervous system, action potential, eye anatomy and physiology, hormones and endocrine system); **Power** (enzymes, macromolecules, digestive system, metabolism, respiratory system, urinary system); **Movement** (joint types, ROM, muscle anatomy and physiology, circulatory system, exercise physiology, athletic training); **Protection** (integumentary system, burns, bone injuries, x-rays lymphatic and immune system, blood types, immunology); and, if time permits, **Homeostasis** (review all body systems, health and wellness, and reproductive system).

Essential Requirements:

- An ability to work well in small groups with peers.
- An ability to work independently and be self-motivated, including appropriate use of time provided in class, as well as managing time and workflow outside of school hours to complete assigned tasks in the time allotted.
- An ability to follow lab safety protocols.
- An ability to perform basic computer skills.

In the event of over enrollment, **first criteria** for consideration shall be the grade attained both semesters of PBS (suggested a 'C; or above both semesters to be successful in this course) as well as excellent attendance in that course and overall school attendance, followed by performance in prior science and math courses.

ONE – HOUR CLASS
STUDENTS MAY ENROLL IN THE FALL ONLY

Students in this course should be taking or plan to take higher level math and science for four years of high school. Students should be in the top ⅓ of their class. Students should be interested in pursuing a degree in science, math, or technology--i.e., in research, laboratory, or clinical medicine. Other important traits are: self-motivated, strong work ethic, good time management, interest in medicine and enjoyment in finding creative solutions to problems.

Prerequisite Courses:

- Successful completion of PBS with a "C" or better both semesters or instructor/administrator approval.
- Concurrently enrolled in biology or successful completion of biology with a 'C' or better.
- Successful completion of grade-level appropriate math class with a 'C' or better.
- Successful completion of all previous years of English class with a 'C' or better.

Applies toward graduation requirements of: 1 Career Technical Education Credit

- ❖ Concurrent enrollment in PBS and HBS is only allowed with the course instructor/administrator approval OR concurrent enrollment in HBS and MI (if PBS was successfully completed with a 'C' or better both semesters) is only allowed with instructor/administrator approval.
- ❖ Attendance is very important to a student's success in this course.
- ❖ If the student does not have a computer, the instructor will make arrangements to check out a school computer with completion of a parent permission slip.

Medical Interventions	**Credit 1**	**11, 12**
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: Students investigate a variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family**.** Students explore how to 1) prevent and fight infection; 2) screen and evaluate the code in human DNA; 3) prevent, diagnose, and treat cancer; and 4) prevail when the organs of the body begin to fail**.** These scenarios expose students to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics and therapeutics. Class activities are heavily weighted in laboratory medicine techniques. Each family case scenario introduces multiple types of interventions and reinforces concepts learned in the previous two PLTW courses, as well as presenting new content, ranging from simple diagnostic tests to treatment of complex diseases and disorders providing a look at the past, present, and future of biomedical sciences. Lifestyle choices and preventive measures are emphasized throughout the course, as are the important roles scientific thinking and engineering design play in the development of interventions of the future. Students are also engaged in considering and debating the bioethics of applying new scientific knowledge and capabilities and related health policy, such as in genetic engineering.

Students should be taking or plan to take higher level math and science for four years of high school. Students should be in the top ⅓ of their class. Students should be interested in pursuing a degree in science, math, or technology -- i.e., in research, laboratory medicine, or clinical medicine. Other important traits are: self-motivation, strong work ethic, good time management, interest in medicine, and enjoyment in finding creative solutions to problems.

Essential Requirements:

- Demonstrate competent to proficient math skills (including algebra, and graphing and analyzing data), writing, and reading skills.
- Demonstrate an ability to follow written and verbal instructions.
- Demonstrate an ability to work well in small groups with peers.
- Demonstrate an ability to work independently and be self-motivated, including appropriate use of time provided in class, as well as managing time and workflow outside of school hours to complete assigned tasks in the time allotted.
- Demonstrate an ability to follow lab safety protocols.
- Demonstrate an ability to perform basic computer skills.
- **NOTE: Attendance is required and documented.**

Strongly recommend access to internet and computer outside of class.

In the event of over enrollment, **first criteria** for consideration shall be current daily attendance, followed by performance in prior biomedical science courses.

ONE – HOUR CLASS
STUDENTS MAY ENROLL IN THE FALL ONLY

Prerequisite Courses:

- Successful completion of PBS and HBS with a “C” or better both semesters of both classes or instructor/administrator approval.
- Successful completion of biology.
- Successful completion of grade-level appropriate math class.
- Successful completion of all previous years of English class.

Applies toward graduation requirements of: 1 Career Technical Education credit

- Concurrent enrollment in HBS and MI (if PBS was successfully completed with a “C” or better both semesters) is only allowed with instructor/administrator approval.
- Attendance is very important to a student’s success in this course.
- Strongly recommended that students have a home computer and internet access.
- If the student does not have a computer, the instructor will make arrangements for student to be successful without having a computer available at home.

College Basic	Credit 1	
Human Biology	**4 Credits @ City College MSU-B**	**11, 12**
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: Provides students with a basic understanding of human anatomy and physiology. Concepts of the body plan and homeostasis will be introduced. Students will also learn the basic structure, function, and interaction of the integumentary, skeletal, muscular, nervous, endocrine, blood, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. The lab portion of the course helps students apply the knowledge base of structure and function of the human body organs and systems. This course is a dual credit course and with successful completion, four (4) college credits will be awarded at City College-MSU Billings. This course is the equivalent of BIOH 104 Basic Human Biology (3 credits) and BIOH 105 Basic Human Biology Lab (1 credit) at City College-MSU Billings. As such, students should anticipate and prepare for a rigorous pace of new concepts and medical terminology, with regular assessment processes through both semesters.

Essential Requirements:

- Demonstrate competent to proficient math (including algebra, and graphing and analyzing data), writing, and reading skills.
- Demonstrate an ability to follow written and verbal instructions.
- Demonstrate an ability to work well in small groups with peers.
- Demonstrate an ability to work independently and be self-motivated, including appropriate use of time provided in class, as well as managing time and workflow outside of school hours to complete assigned tasks in the time allotted.
- Demonstrate an ability to follow lab safety protocols.
- Demonstrate an ability to perform basic computer skills.
- **NOTE: Attendance is required and documented.**

In the event of over enrollment **first criteria** for consideration shall be current daily attendance followed by performance in prior science and/or biomedical science courses.

ONE-HOUR CLASS
STUDENTS MAY ENROLL IN THE FALL ONLY

Prerequisite Courses:

- Successful completion of grade-level appropriate Math classes.
- Successful completion of all previous years of English classes.
- Successful completion of prior science classes with grade of ‘C’ or better.

Applies toward graduation requirement of: 1 Career Technical Education Credit

- ❖ Attendance is very important to a student’s success in this course.
- ❖ Strongly recommended that students have a home computer and internet access.

If the student does not have a computer, the instructor will make arrangements for student to be successful without having a computer available at home.

College Medical Terminology	Credit 1/2 3 Credits @ City College MSU-B	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This one-semester course introduces the student to the specialized language of the medical profession and builds a background vocabulary in this area using a word-building system which provides a solid foundation for understanding medical terms. Basic word-building concepts are taught with emphasis on spelling, pronunciation, and definitions.

This course is a dual credit course and with successful completion of the semester, 3 college credits will be awarded at City College MSU-Billings. As such, students should anticipate and prepare for a rigorous pace of new word roots and concepts, with regular assessment processes throughout the semester. This course is the equivalent of AHMS 144 Medical Terminology (3 credits) at City College-MSU Billings.

Essential Requirements:

- Demonstrate competent to proficient writing and reading skills.
- Demonstrate an ability to follow written and verbal instructions.
- Demonstrate an ability to work independently and be self-motivated, including appropriate use of time provided in class, as well as managing time and workflow outside of school hours to complete assigned tasks in the time allotted.
- Demonstrate an ability to perform basic computer skills.
- **NOTE: Attendance is required and documented.**

In the event of over-enrollment, first criteria for consideration shall be current daily attendance, followed by performance in prior science and/or biomedical science courses.

<u>ONE HOUR CLASS</u>

Prerequisite Courses:

- Successful completion of all previous years of English classes.
- Successful completion of grade-level appropriate Math classes.
- Successful completion of prior science and language classes with grade of ‘C’ or better highly recommended.

Applies toward graduation requirement of: 1 Career Technical Education Credit

*Attendance is very important to a student’s success in this course.
*Strongly recommended that students have a home computer and internet access.
*If the student does not have a computer, the instructor will make arrangements for student to be successful without having a computer available at home.

Certified Nurse Assistant	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description

Concepts and practices in basic skills for Nursing Assistants. Course includes basic medical terminology, basic human anatomy and physiology, and the aging process. Students will gain understanding and application of the skills required to address the needs of the chronically ill residents. This course will prepare students for state examinations required for a Certified Nursing Assistant Certificate. This course will include both classroom hours and practical application.

Course Topics

- Role and responsibility of the nurse aide in long term care
- Basic rights and needs
- Communication
- Resident's physical environment
- Personal care of the resident
- Resident safety and body mechanics
- Death and dying
- Nutrition and fluid balance
- Prevention and control of infection
- Personality and behavior
- Basic anatomy and physiology
- Meeting the needs of special residents
- Emergency care
- Effects of aging on the human body
- Common disease processes
- Measuring vital signs, intake and output, height and weights

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE HOUR CLASS

*Students will have to provide own transportation for training opportunities and requirements off campus.

Prerequisite Courses:

- Successful completion of Biology 1

Applies toward graduation requirements of: 1 Career Technical Education credit

Anatomy & Physiology
Applied Medicine (Med. Careers) **Credit 1** **12**

Course Name **Semester 1 or 2** **Grade Level**

Course Description: This course is a combination of the academic study of Human Anatomy and Physiology along with Applied Medicine. The Applied Medicine portion of the class provides student with hands-on experiences in hospital and clinical settings and exposure to over 50 health care professions. The class meets daily at Billings Clinic. This course is a partnership with Billings Clinic, St. Vincent Healthcare, and RiverStone Health. Students must complete an application from their home schools for admittance into this course.

Essential Requirements:

- Strict adherence to HIPPA based confidentiality
- Adherence to hospital professional dress code
- Practice universal precautions
- Attendance to hospital rotations is mandatory
- Student must provide own transportation to hospital orientations and rotations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK

1ST OR 2ND SEMESTER – A.M. OR P.M. CLASS

Prerequisite Courses: Completion of 3 science credits. Must provide your own transportation

Applies toward graduation requirements of: Anatomy/Physiology = 0.5 science credit; Applied Medicine = 0.5 practical arts credit

College Emergency Medical Technician	**Credit 1 (.5 each semester) 6 Credits @ City College MSU-B**	**12**
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: This course will prepare students for the state and national examinations required for Emergency Medical Technician certification, and will include both classroom hours and practical application. The course is designed for students desiring to perform emergency medical care. Students will learn to assess the seriousness of a patient's condition and the appropriate emergency medical techniques to stabilize the patient until hospital medical care can be received. The course covers theory and techniques; operational aspects of prehospital care; and the scope, responsibility, and safety of the EMT professional.

Essential Requirements for EMT Certification and College Credit:

- Students must maintain a 75% minimum grade on all tests and quizzes
- Successful completion of the course requires a minimum of 10 hours of patient observation with an approved clinical supervisor
- BLS certification
- Students may not have more than 10 total absences throughout the course of the academic year
- Strict adherence to HIPPA based confidentiality

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS
STUDENTS MAY ENROLL IN THE FALL ONLY - SENIORS ONLY

Prerequisite Courses: Successful completion of Biology 1.

Suggested Prerequisites Courses: Principles of Biomedical Sciences, Human Body Systems, Medical Interventions, Medical Careers (Anatomy & Physiology & Applied Medicine) Human Anatomy & Physiology

Applies toward graduation requirements of: 1 Career Technical Education credit

Introduction to the Operating Room	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Provides students with a basic understanding of the career fields that may interact and contribute to patient care services in the realm of the operating room (OR) and related perioperative services. This course introduces the operating room-based career fields by discussing the history of surgery, and the operating room environment as a microsystem within the context of the larger hospital system and organization. The course considers the special needs of surgical patients and the relevant standards of conduct, communication and teamwork, safety standards, and biomedical science applied in caring for surgical patients. This introduction to the operating room provides an orientation to the various roles and functions within the perioperative areas of preoperative, intraoperative, and postoperative care—including, but not limited to, physicians (surgeon, anesthesiologist), nurses, perfusionists, anesthesia technicians, surgical technologists, physician assistants, and nurse first assistants.

Students should anticipate a rigorous pace of learning new concepts and team functions and interactions that will utilize both classroom and operating room simulation experience for training and assessment of performance progress through both semesters.

Essential Requirements:

- Demonstrate competence or proficiency in math (including algebra, and graphing and analyzing data), writing, and reading skills.
- Demonstrate an ability to follow written and verbal instructions.
- Demonstrate an ability to work well in small groups with peers.
- Demonstrate an ability to work independently and be self-motivated, including appropriate use of time provided in class, as well as managing time and workflow outside of school hours to complete assigned tasks in the time allotted.
- Demonstrate an ability to follow lab and OR safety protocols.
- Demonstrate an ability to perform basic computer skills.
- Successful completion of one or more of the following is recommended as familiarity with anatomy and physiology is helpful for studying surgical care and the surgical specialities.
    - Principles of Biomedical Science
    - Human Body Systems
    - Human Biology
    - Anatomy & Physiology
- **NOTE: Attendance is required and documented.**

In the event of over-enrollment, first criteria for consideration shall be current daily attendance followed by performance in prior science and/or biomedical science courses.

ONE-HOUR CLASS

Prerequisite Courses:

- Successful completion of grade-level appropriate Math classes.
- Successful completion of all previous years of English classes .
- Successful completion of prior science classes with grade of ‘C’ or better.

Applies toward graduation requirement of: 1 Career Technical Education Credit

- ❖ Attendance is very important to a student’s success in this course.
- ❖ It is strongly recommended that students have a home computer and internet access.
- ❖ If the student does not have a computer, the instructor will make arrangements for student to be successful without having a computer available at home.

First Year
Electronics 1 / Electric 1
(1st Semester - 2 Hour Class)
Electronics 2 / Electric 2

(2nd Semester - 2 Hour Class)	**Credit 1 (each semester)**	**11, 12**
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: This program prepares students with core knowledge and experience for a variety of careers related to the electrical and electronics fields. Students will learn through study and hands-on activities the principles and applications of electricity. The theory, design and testing of basic circuits and components is presented in the classroom and applied in the lab setting with 40-60% hands-on activities and labs. Students learn low and high voltage wiring principles and practices. These students have been involved in the wiring of the Career Center house project since 1975 and also installed the data, telephone and cable TV systems in the Billings high schools. Successful completion of the program has helped students to pursue career pathways, such as developing into; electricians, electronic technicians and electrical engineers.

Units of Study:

- Math laws that help to control and analyze electronic circuits
- Electron theory and behavior of electricity
- Circuits design and behavior of components
- Measuring and analyzing circuit behavior
- Direct and alternating currents
- Mathematical calculations of electronics
- Semiconductor applications and operations
- Safe practices, codes, standards and designs in electrical circuitry

Essential Requirements

- Solid understanding of basic algebra

In the event of over enrollment the **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Recommend: Highly recommend completion of Algebra 2 (or current enrollment in Algebra 2).

TWO – HOUR BLOCK / YEAR LONG CLASS
STUDENTS MAY ENROLL IN FALL ONLY

Prerequisite Courses: Students should have had at least a “C” in Algebra 1. Algebra 2 is recommended.

Applies toward graduation requirements of: 1 Career Technical Education credit

Second Year
Electrical Technician 1/Electronic
Communication 1- 1st Semester
Electrical Technician 2/Electronic
Communication 2-2nd Semester | **Credit 1 (each semester)** | **11, 12**

Course Name | **Semester 1 & 2 (Full Year Course)** | **Grade Level**

Course Description: This is a continuation of the first-year program. Students will expand their studies into advanced electronics and electrical applications. Industry standard training systems will be used for advanced circuit analysis with emphasis placed upon AC systems, semiconductors, digital circuits, and advanced analysis techniques. Students will also pursue study of their own personal interest in electronics as approved by the instructor.

Units of Study:

- Advanced circuit analysis and design
- Circuit design and fabrication
- Semiconductor applications
- Pre-engineering electronics practices

Essential Requirements

- Completion of the first-year program with a “B” minimum grade
- Solid understanding of basic algebra

In the event of over enrollment the **first criteria** for consideration shall be current daily attendance. Attendance is required and documented**.**

Recommended: Algebra 2

TWO – HOUR BLOCK / YEAR LONG CLASS
STUDENTS MAY ENROLL IN FALL ONLY

Prerequisite Courses: Students must have completed the first year program (semesters 1& 2) with at least a "B" and be accepted into the program by the instructor/administrator.

Applies toward graduation requirements of: 1 Career Technical Education credit

Urban Agriculture	**Credit 1 (each semester)**	**11, 12**
Course Name	**Semester 1 and/or 2**	**Grade Level**

Course Description: This course is designed for the student that has a genuine interest in the "Green Industry" with an emphasis on plants and environmental factors that affect them. Learning will take place through a combination of indoor/outdoor laboratory activities. Many of the subjects include contextual experiences. Class projects may include designing and constructing a hydroponic garden, growing plants in the school greenhouse, design and install a landscape and sprinkler system in the "Spring Sem." Holiday crafts for seasonal occasions including flower arrangements and centerpieces in the "Fall Sem." Students study the relationships between plants, insects, and mammals. Other subjects that will be covered but not limited to; Careers in Horticulture, Plant identification, Lawn and grounds maintenance, Xeriscaping, Hydroponics and Aquaculture. Growing vegetables in the school's greenhouses and gardens. In addition, students may be asked to participate in community and school projects.

Essential Requirements:

- Design and build a landscape and irrigation system (Spring Semester)
- Demonstrate floral and craft design
- Demonstrate plant identification
- Have knowledge of landscape, grounds maintenance, and pruning
- Identify pest and weed control techniques
- Demonstrate knowledge of environmentally safe practices
- Basic understanding of Hydroponics and Aquaculture

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK

Prerequisite Courses: None

Note: Enrollment priority will be given to students who have successfully completed; Horticulture, AFNR, Principles of Plant Science or Animal Science.

Applies toward graduation requirements of: 1 Career Technical Education credit

Introduction to Agriculture, Food, & Natural Resources (AFNR)	Credit 1	9,10, 11, 12
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: *Introduction to Agriculture, Food, and Natural Resources (AFNR)* introduces students to agricultural opportunities and the pathways of study in agriculture. Science, mathematics, reading, and writing components are woven in the context of agriculture and students will use the introductory skills and knowledge developed in this course throughout the CASE curriculum. Throughout the course are activities to develop and improve employability skills of students through practical applications. Students explore career and post-secondary opportunities in each area of the course.

Students participating in the *Introduction to Agriculture, Food, and Natural Resources* course experience hands-on activities, projects, and problems. Student experiences involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise.

The *Introduction to Agriculture, food, and Natural Resources* course serves as the introductory course within the CASE Program of Study. The course is structured to enable all students to experience an overview of the fields of agricultural science and natural resources so that students may continue through a sequence of courses through high school. The knowledge and skills students develop will be used in future courses within the CASE program.

In addition, students will understand specific connections between their lessons and Supervised Agricultural Experience and FFA components that are important for the development of an informed agricultural education student. Students investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

Essential Requirements: The introduction to Agriculture, Food, and Natural Resources course includes:

- Agricultural Education - Agriculture, FFA, and SAE
- Communication Methods
- Science Processes
- Natural Resources
- Plants and Animals
- Agricultural Power and Technology

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE HOUR CLASS:
STUDENT MAY ENROLL IN FALL ONLY

Prerequisite Courses: None

Recommended:

- Successful completion of grade level appropriate science class
- Successful completion of grade-level appropriate math class
- Successful completion of all previous years of English class

***Applies toward graduation requirements of:** 1 Career Technical Education credit

Principles of Plant Science	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: Principles of Plant Science is a foundation-level course teaching students the form and function of plant systems. Student experiences include the study of plant anatomy and physiology, classification, and the fundamentals of production and harvesting.

Students learn how to apply scientific knowledge and skills to use plants effectively for agricultural and horticultural production. Students discover the value of plant production and its impact on the individual, the local, and the global economy.

Students will work on major projects and problems similar to those that plant science specialists, such as horticulturalists, agronomists, greenhouse and nursery managers, and plant research specialists, face in their respective careers. Students will understand specific connections between the course's lesson and Supervised Agricultural Experience and FFA components of agricultural education programs. Students will improve investigative, experimental and communication skills.

In addition, students will understand specific connections between plant science lessons and Supervised Agricultural Experience and FFA components that are important for the development of an informed agricultural education student. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

Essential Requirements: Principles of Plant Science

- Soils
- Anatomy and Physiology
- Taxonomy
- Growing Environment
- Reproduction
- Pest and Disease Management
- Crop Production and Marketing

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE HOUR CLASS:
STUDENT MAY ENROLL IN FALL ONLY

Prerequisite Courses: 10th graders must have successful completion of Intro to Ag, Food and Natural Resources (AFNR), with passing grades and earning credit both semesters or instructor/administrator approval. No prerequisite courses required for 11th or 12th grade students.
Note: Enrollment priority will be given to students who have successfully completed; Horticulture, AFNR, Principles of Plant Science or Animal Science.

Recommended:

- Successful completion of grade-level appropriate science class.
- Successful completion of grade-level appropriate math class.
- Successful completion of all previous years of English class.

***Applies toward graduation requirements of:** 1 Career Technical Education credit

Principles of Animal Science	Credit 1	10, 11, 12
Course Name	**Semester 1 & 2 (Year Long Class)**	**Grade Level**

Course Description: Principles of Animal Science is a foundation-level course engaging students in hands-on laboratories and activities to explore the world of animal agriculture. During the course, students develop a comprehensive Producer's Management Guide for an animal of their choice. Student experiences involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. Throughout the course, students consider perceptions and preferences of individuals within local, regional, and world markets.

Students investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community. Students will explore hands-on projects and activities to learn the characteristics of animal science and work on major projects and problems similar to those that animal science specialists, such as veterinarians, zoologists, livestock producers, and industry personnel, face in their respective careers.

In addition, students will understand specific connections between animal science lessons and Supervised Agricultural Experience and FFA components that are important for the development of an informed agricultural education student. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community.

Essential Requirements: Principles of Animal Science

- **History and Use of Animals**
- **Animal Handling and Safety**
- **Cells and Tissues**
- **Animal Nutrition**
- **Animal Reproduction**
- **Genetics**
- **Animal Health**
- **Animal Products, Selection, and Marketing**

In the event of over enrollment <u>first criteria</u> for consideration shall be current daily attendance. Attendance is required and documented.

<u>ONE HOUR CLASS:</u>
STUDENT MAY ENROLL IN FALL ONLY

Prerequisite Courses: 10th graders must have successful completion of Intro to Ag, Food and Natural Resources (AFNR), with passing grades and earning credit both semesters or instructor/administrator approval. No prerequisites for 11th or 12th grade students.
Note: Enrollment priority will be given to students who have successfully completed; Horticulture, AFNR, Principles of Plant Science or Animal Science.

Recommended:
- Successful completion of grade-level appropriate science class.
- Successful completion of grade-level appropriate math class.
- Successful completion of all previous years of English class.

***Applies toward graduation requirements of:** 1 Career Technical Education credit

Web Page 1	Credits 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Web Page 1 will provide students with the necessary skills to design, create, and maintain functional web pages. The class will cover HTML 5 (Hyper Text Markup Language), CSS3 (Cascading Style Sheets), Adobe Dreamweaver, Adobe Photoshop, and the basic principles of Graphic Design. The class will focus on fundamental methods, standards, and techniques for creating and maintaining basic web pages using HTML5 and CSS3.

Other key elements to be taught:

- Use and function of the internet
- Website evaluation based on design and function
- Website structure and effective navigation
- All aspects of design and function are compared to industry standards

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Web Page 2	Credits 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course further explores and develops skills in web design and development. This course will focus on working with clients, as each eligible student will work with a client and a real world job environment. An emphasis will be placed on the “full package” design and build from domain name to the final upload. Students will work together for art direction and evaluation to create a quality of design that mirrors the industry.

Other key elements to be taught:

- Skills, such as interview and responding to feedback
- Web design geared towards the client
- Re-design and modification based on client specifications
- Design solutions including web site, domain names, hosting and email

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS

Prerequisite Courses: Requires a grade of “C” or higher in Web Page 1 or administrative approval

Applies toward graduation requirements of: 1 Career Technical Education credit

College Introduction to Web Design and Programming	Credits 1/2 3 Credits @ City College-MSU-B	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: College Introduction to Web Design and Programming will provide students with the necessary skills to design, create, and maintain functional web pages. The class will cover HTML 5 (Hyper Text Markup Language), CSS3 (Cascading Style Sheets), Adobe Dreamweaver, Adobe Photoshop and the basic principles of Graphic Design. The class will focus on fundamental methods, standards, and techniques for creating and maintaining basic web pages using HTML5 and CSS3.

Other key elements to be taught:

- Use and function of the internet
- Website evaluation based on design and function
- Website structure and effective navigation
- All aspects of design and function are compared to industry standards

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Animation Lab 1	**Credits 1/2**	**11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This exciting course introduces students to the world of animation, moving from traditional methods and terminology (including anatomy, basic perspective and flipbooks) to cutting edge techniques using Abode Animate software to create and animate 2 dimensional computer based graphics. There is a strong emphasis placed on drawing, both character and environment.

Other Key Elements:

- Flash animation designed and developed specifically for the web
- Use of emerging technology
- Creation of storyboards and outlines
- Creative thinking with technology

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS

✓ **Students are assessed a lab fee for materials which must be paid before the third week of class.**

Prerequisite Courses: Recommend: Art 1 and basic drawing skills (which should include knowledge of anatomy and perspective)
Applies toward graduation requirements of: 1 Career Technical Education credit or 1 Visual/Performing Arts

Animation Lab II	**Credits 1/2**	**11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course builds on previously learned animation techniques and allows students to take their creativity to the next level in multiple animations. Additionally, students will continue to work on their ability to draw convincing poses, expressions, character designs, thumbnails, and storyboards.

Other Key Elements:

- Advanced techniques in Flash, After Effects, and 3D programs
- Use of emerging technology

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

✓ **Students are assessed a lab fee for materials which must be paid before the third week of class.**

ONE-HOUR CLASS

Prerequisite Courses: Requires a grade of “C” or higher in Animation Lab 1
Applies toward graduation requirements of: 1 Career Technical Education credit or 1 Visual/Performing Arts

Graphics

Print Photo	**Credits 1**	**11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course introduces and explores the Graphic Art of Photography. It will also provide students with an introduction to visual concepts, basic image capture, and camera functions using digital cameras. Students will learn to shoot, develop, crop, and mount their photographs as well as specific professional camera and editing techniques. Students will also have the opportunity to begin exploring the cutting edge field of digital photography, using the latest Adobe software available in the industry. This course consists of lecture, textbook assignments as well as darkroom and studio projects. Field trips to local businesses and location shots enhance the hands on learning experience.

Essential Requirements:
Students will demonstrate the following:

- Pinhole camera construction and usage
- Basic understanding and use of software basics for photographic imaging and digital printing
- Dry mounting and presentation techniques
- Basic camera functions in DSLR

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Students must have a 'C' or better to move into Digital Photo. Students are assessed a lab fee for materials which must be paid before the third week of class.

TWO – HOUR BLOCK:
Offered a.m. and p.m.

Preferred: Art 1 or an Art Portfolio

Applies toward graduation requirements of: 1 Career Technical Education credit or 1 Visual/Performing Arts

Design Advertising Design Layout	Credits 1	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This challenging, hands-on course explores the art-related field of Graphic Design, and includes illustration, advertising design & layout; computer assisted design, and design theory. During the semester, students are exposed both to traditional and cutting edge techniques and procedures, and have the opportunity to learn and create in a productive, supportive environment. Additionally, Design students will hear from a variety of professionals working in all aspects of the industry, and will spend time exploring the wide array of graphics related careers available today. Students successfully completing class will be able to step into and perform capably in a number of entry-level jobs in the graphic design industry.

Essential Requirements:

Students successfully completing this class will:

- Demonstrate a solid understanding of both the theory and application of the principles and elements of design.
- Demonstrate basic knowledge of typography and composition.
- Demonstrate basic art techniques.
- Demonstrate basic knowledge regarding the history of Graphic Design, including knowledge of a variety of well-known designers and artists.
- Demonstrate introductory knowledge of Adobe Illustrator, the industry's leading design software.

In the event of over **enrollment <u>first criteria</u>** for consideration shall be current daily attendance. Attendance is required and documented.

Students must have a "C" or better to move into Digital Illustration or Graphics/Print Photo from Design Advertising/Design Layout or Instructor/Administrator approval. Students are assessed a lab fee for materials which must be paid before the third week of class.

<u>TWO – HOUR BLOCK:</u>
Offered a.m. and p.m.

Prerequisite: 1 credit of Art (2 art classes) preferred

Applies toward graduation requirements of: 1 Career Technical Education credit or 1 Visual/Performing Arts

Digital Photo	Credits 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course encourages students to further develop the graphic communication and design skills learned in previous classes, and involves practical lessons dealing with image manipulation. In addition, students will be introduced to Cinema using DSLR's. Students will enhance their skills in photography, composition, layout & design, and through the use of Adobe Software's industry standard Creative Suite. In this class, there is major emphasis on not only learning how to use Adobe Photoshop, but also on how to apply that knowledge in building a professional quality portfolio. Occasionally, community design/graphics projects are brought in and completed in-house by the class members.

Students successfully completing this class will be able to step into and perform capably in a number of above entry-level jobs in the Graphic Arts industry.

Essential Requirements:

- Students successfully completing this class will:
- Capably demonstrate knowledge and application of all aspects of Adobe Photoshop/Lightroom through class lessons and self-directed work
- Capably demonstrate Photoshop skills through a variety of relevant assignments, including business card and cd cover design, photo retouching, and photo manipulation
- Basics of Cinematography

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

- ➢ **It is recommended students who successfully complete this class continue in Design and Layout.**
- ➢ **Students are assessed a lab fee for materials, which must be paid before the third week of class.**

ONE – HOUR CLASS
Offered a.m. fall semester and p.m. spring semester

Recommended background: First-year graphics or several art classes

Prerequisite: Students must earn a "C" or better in Graphics/Print Photo

Applies toward graduation requirements of: 1 Career Technical Education credit or 1 Visual/Performing Arts

Digital Illustration	Credits 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course encourages students to further develop the graphic communication and design skills learned in previous classes. Students will enhance their skills in composition, layout and design through the use of Adobe Software's industry standard Creative Suite. In this class, there is major emphasis on not only learning *how* to use Adobe Illustrator, but also how to apply that knowledge in building a professional quality portfolio. Occasionally, community design/graphics projects are brought in and completed in-house by class members. Students successfully completing class will be able to step into and perform capably in a number of entry-level jobs in the graphic design industry.

Essential Requirements:

Students successfully completing this class will:

- Demonstrate a solid understanding of both the theory and application of the principles and elements of design.
- Demonstrate basic knowledge of typography and composition.
- Demonstrate basic art techniques.
- Demonstrate basic knowledge regarding the history of Digital Design, including knowledge of a variety of well-known designers and artists.
- Demonstrate knowledge of Adobe Illustrator, the industry's leading design software, including: tool usage, and intermediate skill.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented**.**

- ➢ **It is recommended that students who successfully complete this class and have also completed Graphics/Print Photo continue with Digital Photo.**
- ➢ **Students are assessed a lab fee for materials, which must be paid before the third week of class.**

ONE – HOUR CLASS
Offered p.m. Fall Semester, and a.m. Spring Semester

Prerequisite: Students must earn a "C" or better in Design Advertising/Design Layout

Applies toward graduation requirements of: 1 Career Technical Education credit or 1 Visual/Performing Arts

Exploring Visual Media	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Exploring Visual Media opens the pathway to an exciting world of graphics-related technology and career options.

Interested students will engage in an intensive, semester long tour through the fields of visually-related media.

Additionally, students taking **Exploring Visual Media** will have the opportunity to learn about visually related career options in a variety of ways, including field trips, guest speakers, video presentations, and traditional, pen/paper based research.

Students leaving the class will be well-equipped to continue their exploration in any of the Career Center's other graphics based offerings.

Essential Requirements:

- Students will explore the following graphics-linked disciplines:
    - Graphic Design: Students will learn the basics of graphic design, including composition, color theory, typography and the principles of design. Students will create a variety of work based upon the information they learn.
    - Photography: Students will learn the principles of photography and will learn how to build their very own working pinhole cameras. They will develop their own film and print their own pictures before moving on to cutting-edge, digitally based photography.
    - Animation: Students will explore the history of animation, as well as the principles behind it. They will create their own paper-based animations and be briefly introduced to the Adobe's "Animate" software.
    - Web Design: During this brief introduction to the world of web design, students will learn about the principles necessary to designing an effective webpage, and will take a look at "coding" the most effective way of creating web-based content.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE - HOUR CLASS

Students are assessed a lab fee for materials which must be paid before the third week of class.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit or 1 Visual/Performing Art

AP English Language & Composition	Credit 1	11
Course Name	**Semester 1 & 2**	**Grade Level**

Per the *AP English Language and Composition Course Overview*, “The course cultivates reading and writing skills that students need for college success and for intellectually responsible civic engagement. The course guides students in becoming curious, critical, and responsive readers of diverse texts, becoming flexible, reflective writers of texts addressed to diverse audiences for diverse purposes...The reading and writing students do in the course deepen and expand their understanding of various formal and informal genres. Reading and writing activities in the course also deepen students’ knowledge and control of formal conventions of written language.”

This course focuses on rhetorical analysis and argument and is structured around the global idea of Ethics and Morality. Aside from the assigned summer reading of F. Scott Fitzgerald’s novel *The Great Gatsby*, the texts chosen for the course will be predominantly nonfiction. The reading selections will teach students to think and read critically and will also serve as models of academic and professional writing.

Prerequisite Courses: None

Applies toward graduation requirements of: 4 English credits

AP Macroeconomics	Credits 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Advanced Placement Macroeconomics is an introductory college-level course that focuses on the principles that apply to an economic system as a whole. The course will place particular emphasis on the study of national income, price determination, as well as supply and demand curve analysis. Additional subjects of study will include economic indices; financial intermediation and markets; stabilization policies; economic growth; and international trade. The U.S. Federal Reserve System and comparative economic theories will also be examined in detail. Students will utilize graphs, charts, and data to analyze, describe, and explain economic concepts. Advanced Placement Macroeconomics is a one semester course.

Prerequisite Courses: There are no specific prerequisite courses that are required for enrollment in AP Macroeconomics. Nonetheless, students enrolling in this course should be prepared for challenging readings, assignments, and exams.

Applies toward graduation requirements of: ½ Social Studies credit

College Algebra (Math 121)	Credits 1/2	11, 12
Course Name	**Semester 1**	**Grade Level**

Course Description: College Algebra is a rigorous course that analyzes and interprets the behavior and nature of functions including linear, quadratic, polynomial, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions. Additional topics include systems of equations, matrices, and making decisions using probability. This course qualifies for Dual Enrollment Credit through Montana State University-Billings. Students must pass entrance requirements and pay course fees for MATH 121.

Prerequisite: Algebra 2 and qualifying test score of a 22+ on the ACT Math Test or the Accuplacer Exam.

Applies toward graduation requirements of: 2 Math credits

College Technical Math	Credits 1/2 3 Credits @ City College-MSU-B	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Applies math to problems drawn from diverse occupational fields. In addition to a review of operations on rational numbers, the topics of measurement, percent, proportion and variation, applications of algebra to the extent of solving quadratic equations, and applications of plane and solid figure geometry are developed for use in a trade of industrial setting. Course may serve as a prerequisite to M 114, but does not satisfy the prerequisite of any other math courses. Credits apply to graduation but do not fulfill General Education requirements. City College-MSU-B credit (3 credits) may be awarded with proficiency and a passing grade in the course or the student may have to demonstrate proficiency in the course and pass a written comprehensive exam. Please contact the Career Center Counselor for a clarification of the information.

In the event of over enrollment **first criteria** for considerations hall be current daily attendance. Attendance is required and documented.

Prerequisite Course: Completion of Geometry/Acceptable score on the Accuplacer Exam and/or ACT/SAT Exams.

Applies toward graduation requirements of: 2 Mathematics credits or 7 Elective Credits

College Extended Technical Math	Credits 1/2 3 Credits @ City College-MSU-B	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course applies math to problems drawn from diverse occupational fields. The course provides for the study of measurement, algebra, geometry, and trigonometry as needed to solve mathematical applications in a trade or technical work environment. Technical Math is a course designed for students who are considering going into a vocational or technical career. This class is a mixture of math skills from a variety of mathematical principles that focus strongly on the application of these skills to solve problems drawn from diverse occupational fields. The majority of the class time will be spent on integrating a variety of technical terms and tools to solve mathematically related problems that are common to real life workplace situations. An example of what a problem in this course may look like is: Find how many horsepower a motor would receive if it is 80% efficient with a 6.20 horsepower output.

City College-MSU-B credit (3 credits) may be awarded with proficiency and a passing grade in the course or the student may have to demonstrate proficiency in the course and pass a written comprehensive exam. Please contact the Career Center Counselor for a clarification of the information. M114 Extended Technical Math is a 3 credit class that is required for many City College MSU-B Associate of Applied Science degrees.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Prerequisite Course: Completion of Geometry/Acceptable score on the Accuplacer Exam and/or ACT/SAT Exams.

Applies toward graduation requirements of: 2 Mathematics credits or 7 Elective credits.

College Introduction to Statistics	Credit 1/2	11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: College Introduction to Statistics covers descriptive techniques, probability distributions, and statistical inference of one and two sample tests and associated confidence intervals for means and proportions and linear regression. Introduces statistical analysis using technology. This course qualifies for Dual Enrollment Credit through Montana State University-Billings. Students must pass entrance requirements and pay course fees for STAT 216, Introduction to Statistics, 4 University Credits.

Prerequisite Course: Algebra 2 and qualifying test score on the ACT Math Test or on the Accuplacer Exam.

Applies toward graduation requirements of: 2 Math credits or 7 Elective credits

English 4	Credits 1	
Tech Writing	3 Credits @ City College-MSU-B	12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This course covers the Billings Public Schools English 4 curriculum/essential requirements and introduces the student to the creation and evaluation of several kinds of written and oral technical communication. It is a dual enrollment course worth three credits and is the equivalent to WRIT 121 offered at City College at MSU-Billings.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Prerequisite Course: Successful Completion of English 3
Qualifying score on either the Accuplacer or the ACT

Applies toward graduation requirements of: 4 English credits

College Writing/English 4	Credit 1 3 Credits@City College/MSU-B and MSU-B	12
Course Name	**Semester 1 & 2**	**Grade Level**

Course Description: This course covers the Billings Public Schools English 4 curriculum and integrates and provides instruction in writing competencies expected of college students. It pays special attention to writing as a problem-solving process, patterns of organization in personal and informative writing, and logical thinking and style in argumentative/persuasive writing. Students are immersed in the writer's workshop classroom model through writing and responding to writing (their own and from other authors) on a daily basis. It is the equivalent to Writing 101 which is offered at City College at MSU-Billings and MSU-Billings. This is a concurrent enrollment course and students will be required to test into it in order to receive college credit. Other requirements may apply. Please contact your counselor for additional information.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

City College/MSU Billings and MSU Billings: 3 credits in WRIT 101 will be issued to students who pass the College Writing/English 4 class and complete all WRIT 101 competencies.

Prerequisite Course: Successful completion of English 3
Qualifying score on either the Accuplacer or the ACT

Applies toward graduation requirements of: 4 English credits

College American History 1	Credits 1/2 3 Credits @ MSU-Billings	11
Course Name	**Semester 1** ***To be taken with College American History 2** **2nd Semester (Full Year Course)**	**Grade Level**

Course Description: Surveys American history from the establishment of the colonies to the end of the Reconstruction period after the Civil War. Includes such topics as the English political and cultural heritage, independence, creation of the Constitution, early national period, increasing democracy, economic problems, manifest destiny, slavery, sectionalism, disunion, war, and reunion

This course is the equivalent of HSTA 101 American History 1 (3 credits) at Montana State University-Billings.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 United States History credit

College American History 2	Credits 1/2 3 Credits @ MSU-Billings	11
Course Name	**Semester 2** ***To be taken with College American History 1** **1st Semester (Full Year Course)**	**Grade Level**

Course Description: Surveys the political, economic, and social development of the U.S. since Reconstruction. Deals with industrialization and the agrarian reaction, Progressive Era, U.S. reaction to World War I, 1920's, Depression and the New Deal, background to involvement in World War II, Cold War Leadership, (including Korea and Vietnam), and the domestic changes since World War II.

This course is the equivalent of HSTA 102 American History 2 (3 credits) at Montana State University-Billings.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 United States History credit

College American Government	Credits 1/2 3 Credits @ MSU-B	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Covers the American Political System relative to central government and institutions. Attention is given to concepts, organizations and functions with emphasis on the political, governmental and democratic processes and problems, including the role of individual and group relationships. Provides a perspective and background for further study in Political Science. Please see individual school's syllabus for additional topics. Students must meet entrance requirements and pay course fees.

City College/MSU-Billings: 3 credits in PSCI 210 Introduction to American Government will be issued to students who pass all competencies.

Prerequisite Course: Qualifying score on the ACT or on the Accuplacer Exam.

Applies toward graduation requirement of: ½ United States Government

College Intro to Public Speaking	Credits 1/2 3 Credits @ MSU-Billings	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

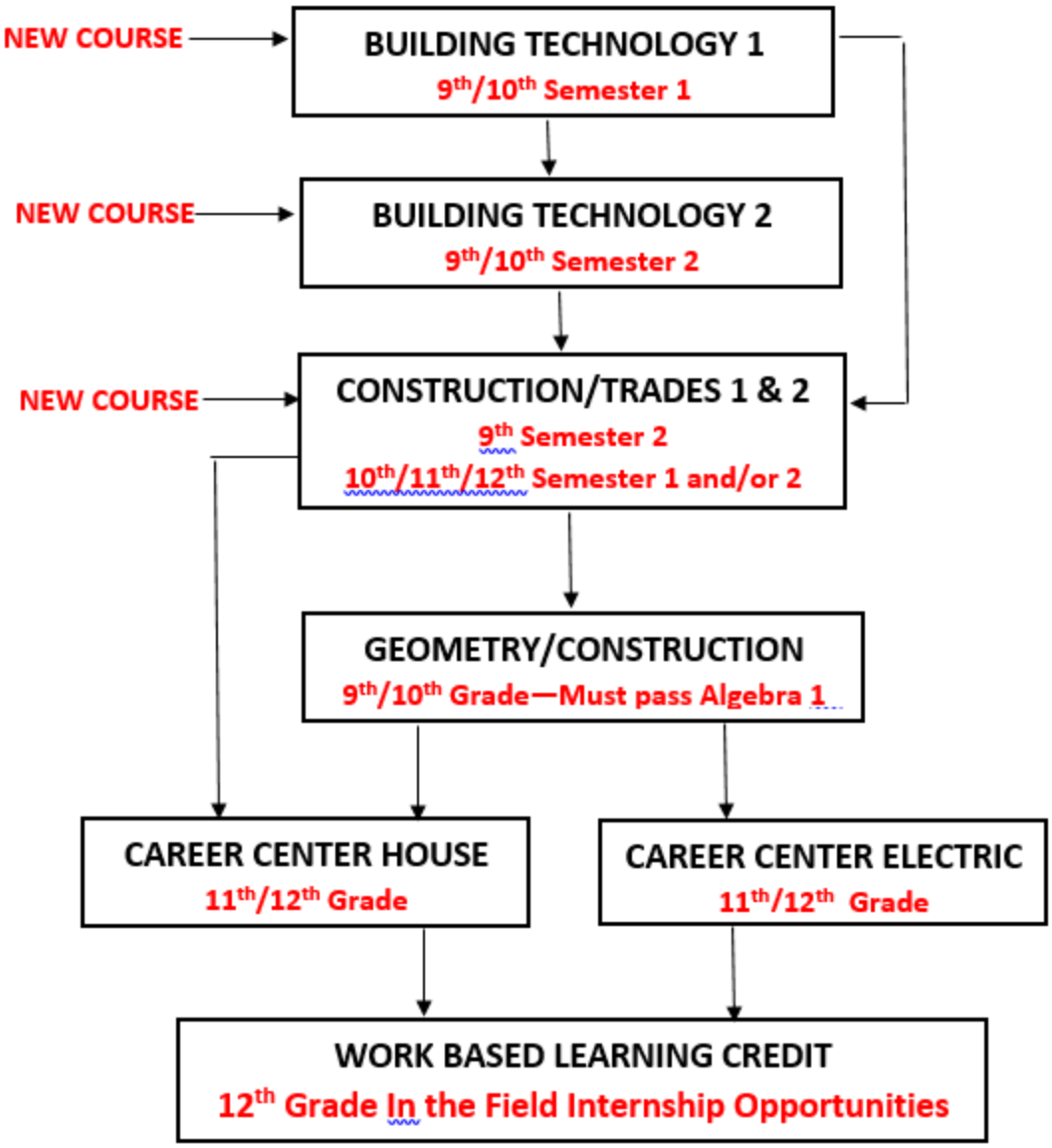
Course Description: Develops the student's speaking abilities. Students acquire an understanding of basic rhetorical theory and its application in a variety of speech situations. Listening, speaking, and critiquing abilities are emphasized. This course addresses the following topics: speech preparation and delivery, forming and fielding questions, audience analysis, listening skills, critiquing and speaker anxiety.

This course is the equivalent of COMX 111 Introduction to Public Speaking-(3 Credits) at MSU-Billings

Prerequisite Courses: None

Applies toward graduation requirements of: ½ Elective Credit

BPS CONSTRUCTION TECH PATHWAY



*Construction
*Electrical
*Plumbing
*HVAC
*Concrete/Masonry
*Design & Drafting

Technical Geometry Geometry in Construction	Credits 1 (½ Math-½ Career Technical Education each semester	9, 10, 11, 12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: This course is designed to show the relevance of Geometry through a variety of practical applications related to but not limited to the construction industries. Students will be: participating in hand-on activities, working in a classroom & shop setting, participating in the construction of a house, and investigating business components in construction and related industries. Students who are interested in architecture, interior design, engineering, construction management, drafting, building trades (electrical, plumbing, etc.) as well as all aspects of manufacturing would benefit from this course. The objectives of this course are to promote academic rigor and real world relevance by having students solve multi-step problems, engage in math concepts that appear in different phases of construction and work in a team setting.

Essential Requirements:

- Students will participate in all aspects of safety, related to construction and manufacturing industries.
- Students will work in shop and construction site environments.
- Students will successfully complete the Geometry requirements as indicated in the All Billings Curriculum.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK / YEAR LONG CLASS
FALL ENROLLMENT ONLY

Prerequisite Courses: Algebra 1 with a “C” grade or better

Applies toward graduation requirements of: 2 Math credits and 1 Career Technical Education credit

Construction Fundamentals 1	**Credits 1 1/2**	
Carpentry 1	**First Year - Semester 1**	**11, 12**
Construction Technique 1		
Course Name	**Semester 1**	**Grade Level**

Course Description: First year house construction students will work hands-on in the construction of this year's student built house. Students will develop skills and valuable construction knowledge in the first phases of the building construction trades. Students will learn the dynamics of a real residential house construction site. Students will receive on the job training as they learn the trades and experience the work ethics of residential construction.

Essential Requirements:

- Students will complete: framing, concrete finishing, Western balloon framing, roofing, heating and cooling (mechanical work), wiring, insulation, drywall hanging, drywall perfataping.
- Ability to work safely, independently and without constant supervision.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented**.**

THREE – HOUR BLOCK - NO EXCEPTIONS!

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Construction Fundamentals 2
Carpentry 2 **Credits 1 1/2**
Construction Technique 2 **First Year - Semester 2** **11, 12**

Course Name	**Semester 2**	**Grade Level**

Course Description: First year house construction students will continue to work hands-on in the construction of this year's student built house. Students will develop skills and valuable construction knowledge in the remaining phases of the building construction trades. Students will learn the dynamics of a real residential house construction site. Students will receive on the job training as they learn the trades and experience the work ethics of residential construction.

Essential Requirements:

- Students will complete: drywall, perfataping, painting, trim, carpentry, cabinet installation, floor covering, cultured stone applications, finish plumbing, concrete framing, deck construction, detailing out a house

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK - NO EXCEPTIONS!

Prerequisite Courses: Construction Fundamentals 1, Carpentry 1, Construction Technique 1 with a grade of “C” or better, or consent of instructor with recommendation of administrator/counselor.

Applies toward graduation requirements of: 1 Career Technical Education credit

Building Trades 1
House Building 1 **Credits 1 1/2**
Construction Technique 3 **Second Year - Semester 1** **12**

Course Name	**Semester 1**	**Grade Level**

Course Description: Second year house construction students will work with first year students to complete this year's student built house. The second year student will serve as a leader to demonstrate good work ethics and help guide first year students through the building construction trades. Second year students will expand their knowledge and refine their skills as they work to complete a second house. The second year student should achieve greater proficiency in their work and the development of their skills.

Essential Requirements:

- Students will complete: framing, concrete finishing, Western balloon framing, roofing, heating and cooling (mechanical work), wiring, insulation, drywall hanging, drywall perfataping.
- Ability to work safely, independently and without constant supervision.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK FOR 2ND YEAR STUDENTS – NO EXCEPTIONS!

Prerequisite Courses: Successful completion of one semester of Construction Fundamentals 1, Carpentry 1, Construction Technique 1, or Construction Fundamentals 2, Carpentry 2, Construction Technique 2 with a "C" grade or better
consent of instructor with recommendation of counselor/administrator.

Applies toward graduation requirements of: 1 Career Technical Education credit

Building Trades 2		
House Building 2	**Credits 1 1/2**	
Construction Technique 4	**Second Year - Semester 2**	**12**
Course Name	**Semester 2**	**Grade Level**

Course Description: Second year house construction students will receive the hands-on training that comes with working through the last phases of house construction. Second year students will experience the challenges of house construction with a greater level of understanding. Students will benefit from the development of skills with a higher proficiency and the diverse knowledge that comes with two years of training. Students will enter the job market with confidence and success.

Essential Requirements:

- Students will complete: drywall perfataping, painting, trim carpentry, cabinet installation, floorcoverings, cultured stone applications, finish plumbing, concrete framing, deck construction, detailing out a house.
- Ability to work safely, independently and without constant supervision.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK FOR 2ND YEAR STUDENTS - NO EXCEPTIONS!

Prerequisite Courses: Successful completion of Building Trades 1, House Building 1, Construction Technique 3 with a grade of “C” or better or consent of instructor with recommendation of counselor/administrator.

Applies toward graduation requirements of: 1 Career Technical Education credit

Cafe Protege/ (Culinary Arts For Industry)	**Credits 2 (1 credit per semester)**	**11, 12**
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: The course introduces students to commercial foodservice concepts not found in more traditional F.A.C.S programs. Classes are held off campus at City College-Montana State University Billings in a full commercial kitchen setting.

This course is an introduction to the restaurant and foodservice industry. Students will be exposed to a variety of cooking skills and techniques, language, equipment, and basic operations critical for success in the culinary arts and foodservice industry. In addition to the fun and excitement of Culinary Arts the following topics are covered as essential requirements.

Fees Charged: Each semester a lab fee is required. Chef coats and headgear will be provided.

Essential Requirements:

- Food and Workplace Safety
- Knife Skills: Beginner through Advanced
- Stocks, Sauces, and Soups
- Cooking Methods and Techniques
- Baking Principles and Fundamentals of Bakeshop Production including: Breads, Pies, Cakes, Pastries, and Cookies
- Food Cultures and Styles from Around the U.S. and the World
- Customer Service, Work Place Communication, Food Costing and Controls, Menu Planning and Marketing
- Catering Fundamentals and Buffet Service Basics

Students are urged and assisted to seek employment in local food service establishments in such roles as paid internships, job shadow and work study programs.

Students can receive dual credit (both high school graduation credit and college credit) at most major culinary schools.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK / YEAR LONG CLASS

Prerequisite Courses: Priority is given to students with prior culinary coursework.

Home Design/ Interior Design	Credit 1	11,12
Course Name	**Semester 1**	**Grade Level**

Course Description: This course provides skills with both a computer and hands-on approach to learning. Students complete comprehensive assignments where they apply all of the skills and knowledge obtained throughout the course. They work with community vendors to select: paint, flooring, lighting, tile, appliances, fixtures, and wallpaper for a student built house. They also learn the basics in AutoCad and Sketchup. This course is designed to teach the skills needed to be a professional in the design industry and meets the needs of students who desire to receive dual credit for a post secondary education.

Essential Requirements:

- Identify factors and characteristics that impact the interiors of a space by applying the elements and principles of design.
- Interpret written and verbal directions for drawing/modeling an interior design project.
- Demonstrate communication skills that promote positive relationships in the workplace by working in cooperative groups to implement a design plan for the Career Center student built house.
- Communicate design ideas through visual and oral presentations.
- Describe careers in the interior design industry by classifying careers that range from entry level to professional.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK
1ST SEMESTER ONLY

Prerequisite Courses: Priority will be given to students with prior related coursework.

Applies toward graduation requirements of: 1 Career Technical Education credit

Home Improvement Design Improvement	Credit 1	11, 12
Course Name	**Semester 2**	**Grade Level**

Course Description: This course provides students with the essential skills and knowledge needed to make basic home improvements through a hands on approach to learning. Students will learn spatial layout and the staging process of the student built home. They will learn how to select product/material, provide an explanation of why selected, and model how to implement their selection in the work room or on site. Highlights include: tape/texture of walls, painting, wallpaper installation, tile installation, mural design, etc. Students will learn from: professional presenters, field trips to industry related companies, and working/practicing on site at the Career Center house. This class will teach basic skills necessary to maintain and enhance a home.

Essential Requirements:

- Calculate quantities, measure, order and install product.
- Student will develop skills needed to complete interior projects on site or in the workroom.
- Will learn how to understand and stay within a budget.
- Student will communicate design ideas through visual and oral presentations to professionals and peers.
- This class will analyze career options available in the home improvement industry.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK
2ND SEMESTER ONLY

Prerequisite Courses: Priority will be given to students with prior related coursework.

Applies toward graduation requirements of: 1 Career Technical Education credit

College Introduction to Interior Design	Credit 1 3 Credits at Gallatin College	11, 12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: This class is designed to provide dual credit with Gallatin College. Students successfully completing Interior/Home Design and Home/Design Improvement will receive college credit for IDSN101 Intro to Interior Design at Gallatin College in Bozeman. The objective of this course is to provide a successful transition from high school to post-secondary education.

Essential Requirements:

- Extended course work utilizing Gallatin's college text
- Demonstrate an understanding of the development of architecture and interior design as professions including technical and regulatory elements, historical, current and future directions by successfully completing exams and/or projects
- Demonstrate the ability to distinguish and apply the terminology utilized in the fields of architecture and interior design
- Demonstrate an understanding and appreciation of the basic principles of architecture and interior design including space planning through the study of the design process, design principles and elements, human perception, building materials, furniture selection, textiles, lighting, color, accessories, human factors and business considerations
- Demonstrate an understanding of the elements and principles of design by successfully creating an elements and principles project
- Demonstrate an understanding of a design concept. An example of this is to create a successful concept board.
- Demonstrate an understanding of the diversity of needs and human factors in planning space with a presentation of their project. Their project and presentation will be done with proficiency.
- Demonstrate an understanding of the fundamentals of environmental design by showing a proficient understanding through project/question based evaluation.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

PART OF A TWO-HOUR BLOCK

- ➢ **to be taken with Home Design - Semester 1 AND**
- ➢ **to be taken with Home Improvement - Semester 2**

Prerequisite Courses: Priority will be given to students with prior related coursework.

Applies toward graduation requirements of: 1 Career Technical Education credit

Manufacturing Processing 1
Manufacturing Design 1 | **Credit 1** | **11, 12**

Course Name | **Semester 1 or 2 - 1st Year Student** | **Grade Level**

Course Description: This course offers students the opportunity to learn and explore the many aspects of metals manufacturing. Students will explore a variety of welding processes through hands on interaction in the welding lab. These processes may include plasma cutting, shielded metal arc welding, and gas metal arc welding. It is our goal to explore as many manufacturing processes as possible to prepare students for a career in metals manufacturing.

Essential Requirements:

- Ability to work safely in a shop environment
- Ability to work in groups with peers
- Ability to work independently to complete given assignments

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Must maintain a grade of "C" or better to move into 2nd semester classes

TWO – HOUR BLOCK

Prerequisite Courses: Basic Math skills

Applies toward graduation requirements of: 1 Career Technical Education credit

Manufacturing Processing 2

Manufacturing Design 2	**Credit 1**	**11, 12**
Course Name	**Semester 1 or 2 - 1st Year Student**	**Grade Level**

Course Description: This exciting course offers students the opportunity to continue learning and exploring the many aspects of metals manufacturing. Students will explore a variety of advanced welding techniques through hands on interaction in the welding lab. Students will be exposed to out of position welding using the shielded metal arc and gas metal arc welding processes. It is our goal to explore as many manufacturing processes as possible to prepare students for a career in metals manufacturing.

Essential Requirements:

- Ability to work safely in a shop environment
- Ability to work in groups with peers
- Ability to work independently to complete given assignments

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Must maintain a grade of "C" or better to move into 3rd semester classes

TWO – HOUR BLOCK

Prerequisite Courses: Must have completed Manufacturing Process 1 & Manufacturing Design 1 with a grade of "C" or better or instructor / administrator approval.

Applies toward graduation requirements of: 1 Career Technical Education credit

Manufacturing Technology 1

Manufacturing System 1	**Credit 1**	**12**
Course Name	**Semester 1 or 2 – 2nd Year Student**	**Grade Level**

Course Description: This exciting course offers students the opportunity to apply the skills learned in Manufacturing Process and Design. Along with learning stick, MIG, and TIG welding, students will learn basic blueprint reading, layout techniques, and measurement skills. Students will be given the opportunity to design and build personal projects of their choosing.

Essential Requirements:

- Ability to work safely in a shop environment
- Ability to work in groups with peers
- Ability to work independently to complete given assignments

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Must maintain a grade of "C" or better to move into 4th semester classes

TWO – HOUR BLOCK

Prerequisite Courses: Must have completed: Manuf. Process1 and Manuf. Design 1, Manuf. Process 2 and Manuf. Design 2 with a grade of "C" or better or instructor/administrator approval.

Applies toward graduation requirements of: 1 Career Technical Education credit

Manufacturing Technology 2

Manufacturing System 2	**Credit 1**	**12**
Course Name	**Semester 1 or 2 – 2nd Year Student**	**Grade Level**

Course Description: This course allows students to apply their metal working skills to advanced manufacturing applications such as pipe welding, build to print manufacturing, automated plasma cutting, and metal working design.

Essential Requirements:

- Ability to work safely in a shop environment
- Ability to work in groups with peers
- Ability to work independently to complete given assignments
- Blue print reading
- Basic Math
- Basic Measuring Skills

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Must have maintained a grade of "C" or better in the 1st three semesters of the program.

TWO – HOUR BLOCK

Prerequisite Courses: Must have completed Manuf. Process 1 and Manuf. Design 1, Manuf. Process 2 and Manuf. Design 2, Manuf. Tech 1 and Manuf. System 1 with a grade of "C" or better or by instructor/administrator approval.

Applies toward graduation requirements of: 1 Career Technical Education credit

	Credit 1	
College Welding 125	**5 Credits @City College-MSU-B**	**12**
Course Name	**Semester 1**	**Grade Level**

Course Description: Student learning includes manual and semi-automated oxy-acetylene cutting processes and safety. Shielded Metal Arc Welding with 6010 electrode, which leads toward American Welding Society D1.1 and American Society of Mechanical Engineers Section IX structural certification. Learning the air carbon arc cutting, plasma arc cutting processes, and equipment set-up. Welding shop safety and quality are emphasized.

Essential Requirements:

- Ability to work safely in a shop environment
- Ability to work in groups with peers
- Ability to work independently to complete given assignments
- Blueprint reading
- Basic Math
- Basic Measuring Skills

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Must have maintained a grade of "C" or better in the 1st two semesters of the program.

TWO – HOUR BLOCK

Prerequisite Courses: Must have completed Manuf. Process 1 and Manuf. Design 1, Manuf. Process 2 and Manuf. Design 2 with a grade of "C" or better or by instructor/administrator approval

Applies toward graduation requirements of: 1 Career Technical Education credit

	Credit 1	
College Welding 157	**5 Credits @City College-MSU-B**	**12**
Course Name	**Semester 2**	**Grade Level**

Course Description: Introduction of semi-automatic wire feed processes. This course leads to AWS and ASME qualification of plate (all positions) with the SMAW, GMAW, and FCAW processes. Safe practices and weld quality are major considerations.

Essential Requirements:

- Ability to work safely in a shop environment
- Ability to work in groups with peers
- Ability to work independently to complete given assignments
- Blueprint reading
- Basic Math
- Basic Measuring Skills

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

Must have maintained a grade of "C" or better in the 1st three semesters of the program.

TWO – HOUR BLOCK

Prerequisite Courses: Must have completed Manuf. Process 1 and Manuf. Design 1, Manuf. Process 2, Manuf. Design 2, Manuf. Tech 1, Manuf. System 1 or College Welding 125 with a grade of "C" or better or with instructor/administrator approval

Applies toward graduation requirements of: 1 Career Technical Education credit

Machinist Technology-Manual	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course explores and develops skills in basic machining technology as it applies to modern machining. It combines the applied technology of machining on lathes, mills, and drill presses. Students will complete a series of projects which will teach them skill sets which include: precision measurement using micrometers and calipers, threading, tapping, tapering, knurling, and traditional operation of the lathes, mills and drill presses. Students will have the ability to manufacture precision parts and produce quality projects upon completion of class.

Essential Requirements:

- Ability to follow written and verbal instructions
- Ability to understand and implement safety aspects of machining technology
- Ability to work safely with industrial equipment
- Ability to use basic math and precision measuring techniques
- Ability to perform basic machining tasks on lathes and mills
- Ability to work in groups with peers
- Ability to work independently and complete tasks in appropriate time allotted

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS

Prerequisite Courses: None. Of the machining classes offered it is recommended that this course be taken first.

Applies toward graduation requirements of: 1 Career Technical Education credit

CNC Machining Technology	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course will introduce students to the world of Computer Controlled Machining and Cutting. Students will learn the basic concepts of 3D drafting and solid modeling then learn to convert their designs into actual parts by utilizing our industry proven CNC Mills and plasma cutter. All students will be involved with the NASA HUNCH program and build parts for the International Space Station. Students will leave this class with a basic foundation necessary for the manufacturing of precision components.

Essential Requirements:

- Basic Computer Skills
- Ability to work safely in a shop environment
- Ability to work in groups with peers
- Ability to work independently to complete given assignments

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS

Prerequisite Courses: First priority is given to students who have completed Machinist Technology (Manual) with a grade of 'C' or better. Priority consideration will be given to 11th and 12th grade students who have completed and earned credit in; a Drafting/CAD course, Introduction to Engineering Design, or Principles of Engineering.
*Due to class size limitations, Seniors will have 1st enrollment considerations, Juniors will have 2nd enrollment consideration, and Sophomores will be enrolled after Juniors/Seniors.
*Note 10th grade students are only eligible to take this course if they have completed and earned credit in Introduction to Engineering Design.

Applies toward graduation requirements of: 1 Career Technical Education credit

CNC Machining Technology & Design	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course explores advanced applications of Computer Numerically Controlled machining through the use of Computer Aided Design (CAD) in conjunction with Computer Aided Manufacturing (CAM). Students will have the opportunity to learn advanced skills in precision measuring, use of digital readouts, drawing with basic CAD, and basic machine programming. These skills will be combined to program CNC lathes, mills, and plasma tables to machine precision parts during class.

Essential Requirements:

- Ability to follow written and verbal instructions
- Ability to understand and implement safety aspects of machining technology
- Ability to work safely with industrial equipment
- Ability to use basic math and precision measuring techniques
- Ability to perform basic machining tasks on lathes and mills
- Ability to work in groups with peers
- Ability to work independently and complete tasks in appropriate time allotted

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS

Prerequisite Courses: First priority is given to students who have completed both Machinist Technology (Manual) and CNC Machining Technology with a grade of 'C' or better. Second priority is given to students who have completed a CNC Machining Technology with a grade of 'C' or better. Third priority is given to students who have completed Machinist Technology (manual) with a grade of 'C' or better.
*Priority consideration will be given to 11th and 12th grade students who have completed and earned credit in; a Drafting/CAD course, Introduction to Engineering Design, or Principles of Engineering.
*Due to class size limitations, Seniors will have first enrollment consideration, Juniors will have second enrollment consideration, and Sophomores will be enrolled after Juniors and Seniors.

Applies toward graduation requirements of: 1 Career Technical Education credit

+ Construction Fundamentals 1
+ Carpentry 1

+ Construction Techniques 1	**Credit 1 1/2**	**11, 12**
Course Name	**Semester 1 – 1st Year Student**	**Grade Level**

Course Description: Construction Fundamentals is an in-shop experience, in that the course is designed to teach all safety and tool operation, as well as give the students as many experiences in dealing with the construction trades as possible. This is a progressive type program, as skill levels increase, so will the tasks required of each student. As students learn and gain the confidence needed to be successful they will be exposed to a multitude and varying array of construction trades techniques.

Essential Requirements:

- Ability to follow instruction, written and verbal.
- Work safely with industrial equipment
- Ability to understand safety aspects
- Basic plumbing/wiring
- Measuring, basic math skills
- Ability to take notes and do small scale drawings

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

FIRST YEAR

THREE - HOUR BLOCK
CLASS OFFERED PERIODS 1, 2, & 3 ONLY

Prerequisite Courses- Strong math background, proficient in reading a tape measure, and ability to work appropriately and safely with equipment.

Applies toward graduation requirements of: 1 Career Technical Education credit

+ Construction Fundamentals 2
+ Carpentry 2

+ Construction Techniques 2	**Credit 1 1/2**	**11, 12**
Course Name	**Semester 2 – 1st Year Student**	**Grade Level**

Course Description: Construction Fundamentals is an in-shop experience, in that the course is designed to teach all safety and tool operation, as well as give the students as many experiences in dealing with the construction trades as possible. This is a progressive type program, as skill levels increase, so will the tasks required of each student. As students learn and gain the confidence needed to be successful, they will be exposed to a multitude and varying array of construction trades techniques.

Essential Requirements:

- Ability to follow instruction, written and verbal
- Work safely with industrial equipment
- Ability to understand safety aspects
- Basic blueprint reading
- Measuring, basic math skills
- Basic wiring/plumbing techniques
- Ability to take notes and do small scale drawings
- Safety is a number one priority for participation in this course. An IEP review will take place if safety for all stakeholders is a concern
- Sheetrock/perfataping/texturing applications
- Ability to work safely, independently and without constant supervision

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

FIRST YEAR

THREE-HOUR BLOCK
CLASS OFFERED PERIODS 1, 2, & 3 ONLY

Prerequisite Courses: Strong math background, proficient in reading a tape measure, and ability to work appropriately and safely with equipment. +Construction Fundamentals 1, +Carpentry 1, +Construction Tech. 1, successfully completed. Counselor, instructor/administrator approval.

Applies toward graduation requirements of: 1 Career Technical Education credit

+ Building Trades 1
+ House Building 1

+ Construction Techniques 3	**Credit 1 1/2**	**12**
Course Name	**Semester 1 -2nd Year Student**	**Grade Level**

Course Description: Building Trades is an in-shop experience, in that the course is designed to teach all safety and tool operation, as well as give the students as many experiences in dealing with the construction trades as possible. This is a progressive type program, as skill levels increase, so will the tasks required of each student. As students learn and gain the confidence needed to be successful they will be exposed to a multitude and varying array of construction trades techniques.

Essential Requirements:

- Ability to follow instruction, written and verbal
- Work safely with industrial equipment
- Ability to understand safety aspects
- Basic blueprint reading
- Measuring, basic math skills
- Basic wiring/plumbing techniques
- Ability to take notes and do small scale drawings
- Sheetrock/perfataping/texturing applications

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

SECOND YEAR

THREE-HOUR BLOCK
CLASS OFFERED PERIODS 1, 2, & 3 ONLY

Prerequisite Courses: Strong math background, proficient in reading a tape measure, and ability to work appropriately and safely with equipment. Satisfactory completion of both semesters of: +Const. Fundamentals 1 & 2, +Carpentry 1 & 2, +Construction Techniques 1 & 2 or Instructor/Administrative approval.

Applies toward graduation requirements of: 1 Career Technical Education credit

+ Building Trades 2
+ House Building 2

+ Construction Techniques 4	**Credit 1 1/2**	**12**
Course Name	**Semester 2 -2nd Year Student**	**Grade Level**

Course Description: Building Trades is an in-shop experience, in that the course is designed to teach all safety and tool operation, as well as give the students as many experiences in dealing with the construction trades as possible. This is a progressive type program, as skill levels increase, so will the tasks required of each student. As students learn and gain the confidence needed to be successful, they will be exposed to a multitude and varying array of construction trade techniques.

Essential Requirements:

- Ability to follow instruction, written and verbal
- Work safely with industrial equipment
- Ability to understand safety aspects
- Basic blueprint reading
- Measuring, basic math skills
- Basic wiring/plumbing techniques
- Ability to take notes and do small scale drawings
- Safety is a number one priority for participation in this course. An IEP review will take place if safety for all stakeholders is a concern
- Sheetrock/perfataping/texturing applications
- Ability to work safely, independently and without constant supervision

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

SECOND YEAR

THREE-HOUR BLOCK
CLASS OFFERED PERIODS 1, 2, & 3 ONLY

Prerequisite Courses: Strong math background, proficient in reading a tape measure, and ability to work appropriately and safely with equipment. +Building Trades 1, + House Building 1, +Construction Techniques 3 successfully completed and /or counselor instructor/administrative approval.

Applies toward graduation requirements of: 1 Career Technical Education credit

Automotive Fundamentals	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Automotive Fundamentals is a course designed for students who are considering entering the automotive industry as well as those who want to learn the basic fundamentals of automobile service and repair. This course introduces the student to the various automotive systems and goes on to provide the foundations of tool use, basic and necessary vehicle maintenance, and automotive industry terminology. The course also provides students access to technical information for system service and introduces them to automotive careers and certifications.

Critical Concepts:

- Demonstrate and understand automotive literacy and safety
- Demonstrate an understanding of industry tools, measuring tools, and equipment
- Demonstrate an understanding of basic automotive systems
- Demonstrate an understanding of engine design, classification, and construction
- Demonstrate an understanding of automotive service
- Demonstrate automotive industry communication and literacy skills

In the event of over enrollment:

★ **First criteria** for consideration shall be the grades the student earned in previous automotive courses.
★ **Second criteria** will be current daily attendance. Attendance is required and documented.

One Hour Class

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education Credit

Automotive Engines 1	Credit 1/2	10, 11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course will provide the student with a basic understanding of the design, operation, measurements, as well as the overhaul and rebuilding of a small engine. Students will gain an understanding of two and four cycle engine theory, safety, equipment and will develop job skills. Students will learn to use various online parts and repair manuals to determine repair procedures, torque specifications, and replacement part numbers.

Critical Concepts:

- Demonstrate proper tool selection and usage
- Demonstrate the use of precision measuring tools
- Demonstrate an understanding of engine operating principles
- Identification of engine components.
- Demonstrate how to disassemble and reassemble an engine
- Demonstrate how to troubleshoot an engine
- Demonstrate the use of on-line service and parts manuals

In the even of over enrollment:

★ **First criteria** for consideration shall be the grades the student earned in previous automotive courses.
★ **Second criteria** will be current daily attendance. Attendance is required and documented.

One Hour Class

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education Credit

Automotive Powertrain	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course focuses on the theory and operation of the vehicle's drivetrain. This includes automatic and manual transmissions, clutches, torque converters, transfer cases, driveshafts and differentials.

Critical Concepts:

- Inspect and service drivetrain components and fluids
- Disassemble and reassemble both manual and automatic transmissions
- Identify components and explain power flow through transmissions
- Disassemble and reassemble a transfer case (4 wheel drive)
- Disassemble and reassemble a differential

In the even of over enrollment:

★ **First criteria** for consideration shall be the grades the student earned in previous automotive courses.
★ **Second criteria** will be current daily attendance. Attendance is required and documented.

One Hour Class

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education Credit

Automotive Electrical	Credit 1/2	11, 12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course covers electrical theory, diagnosis, and testing. Students will perform testing and services on the vehicle's battery, starting and charging system, as well as diagnose electrical faults using diagnostic equipment. Students will become NC3 certified in digital multimeters through the Snap-on Education Program and will also obtain certifications through Ford Motor Company.

This course is also offered for college credit under College Automotive Electrical

Critical Concepts:

- Demonstrate automotive industry communication and literacy skills
- Achieve NC3 certified in digital multimeters through the Snap-on Education Program
- Demonstrate proper soldering techniques
- Build an automotive test light
- Test and diagnose electrical faults using a multimeter
- Test and service a vehicle's battery, starting and charging the system

In the event of over enrollment:

★ **First criteria** for consideration shall be the grades the student earned in previous automotive courses.
★ **Second criteria** will be current daily attendance. Attendance is required and documented.

One Hour Class

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education Credit

Automotive Chassis	Credit 1	11,12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Course content provides students the opportunity to acquire marketable skills in diagnosis, repair, and service of automotive brakes systems, suspension systems, and steering systems. City College MSU-B credit (4 credits) toward Brakes Systems may be awarded with demonstrated proficiency on a written and lab final at the conclusion of the course.

Critical Concepts:

- Understands automotive terminology as it pertains to brake systems
- Use precision measuring equipment
- Demonstrate automotive industry communication and literacy skills
- Demonstrate automotive industry workplace skills
- Demonstrate knowledge of brake, steering, and suspension systems theory
- Locate and identify chassis, suspension, and steering components
- Remove, inspect, assemble, and service brake, steering, and suspension system components.

In the event of over enrollment:

★ **First criteria** for consideration shall be the grades the student earned in previous automotive courses.
★ **Second criteria** will be current daily attendance. Attendance is required and documented.

Two Hour Block

Prerequisite Courses: None

Applies toward graduation requirement of: 1 Career Technical Education Credit

Automotive Engines 2	Credit 1	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: This course will train students in engine rebuilding procedures, engine services, diagnostics, and performance testing.

In the classroom, students will learn the theory and operation of the automotive engine and its various systems. The focus will be on engine performance as well as current trends in engine design. Throughout the course students will obtain certifications awarded through Ford Motor Company.

In the lab students will disassemble, measure, reassemble, and test run an engine. They will also perform routine services on the fuel, cooling, and lubrication systems. As a class we will test performance engines on the dynamometer and study the results using different components.

Critical Concepts:

- Demonstrate automotive industry communication and literacy skills.
- Rebuild, measure, and test run an engine following industry standards
- Successfully diagnose common engine malfunctions
- Complete a timing chain repair on a modern engine
- Perform common maintenance services
- Retrieve diagnostic trouble codes using factory scan tools
- Performance test engines on a dynamometer and analyze the data

In the event of over enrollment:

★ **First criteria** for consideration shall be the grades the student earned in previous automotive courses
★ **Second criteria** will be a current daily attendance. Attendance is required and documented.

Two Hour Block

Prerequisite Courses: **Automotive Engines 1**

Applies toward graduation requirements of: 1 Career Technical Education Credit

College	Credit 1/2	
Automotive Electrical	**2 Credits @ City College MSU-B**	**11, 12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: One Hour-One Semester Class. This is a dual credit course through City College-MSU-B. Students will earn two credits in TRID 292 Electrical/Electronic Systems 1 by successfully completing the Automotive Electrical course. Students in College Automotive Electrical will follow the same curriculum as students in Automotive Electrical.

This course covers electrical theory, diagnosis, and testing. Students will perform testing and services on the vehicle's battery, starting and charging system, as well as diagnose electrical faults using diagnostic equipment. Students will become NC3 certified in digital multimeters through the Snap-on Education Program and will also obtain certifications through Ford Motor Company.

Critical Concepts:

- Demonstrate automotive industry communication and literacy skills
- Achieve NC3 certified in digital multimeters through the Snap-on Education Program
- Demonstrate proper soldering techniques
- Build an automotive test light
- Test and diagnose electrical faults using a multimeter
- Test and service a vehicle's battery, starting, and charging system

In the event of over enrollment:

★ **First criteria** for consideration shall be the grades the student earned in previous automotive courses.
★ **Second criteria** will be current daily attendance. Attendance is required and documented.

MSU-Billings City College: 2 credits in TRID 292 Electrical/Electronic Systems 1 will be issued to students who pass the College Automotive Electrical class and complete all TRID 292 competencies.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education Credit

Early Child Physical Development
Early Child Intellectual Development **Credit 1** **11, 12**

Course Name **Semester 1** **Grade Level**

Course Description: You will gain practical teaching experience in one of the two Career Center Preschools, after learning teaching techniques in the high school classroom pertaining to children's physical, social, emotional and cognitive development. Emphasis is placed on education through physical and intellectual development. Opportunities are provided to learn what is entailed in various specialized fields such as special education, speech, physical and occupational therapies and pediatric nursing. Whatever path in life you choose children will likely be a part of it; don't miss this opportunity to brighten your life and the lives of many children.

Essential Requirements:

- Early childhood education training
- Teaching in the preschool
- Lesson planning for preschool
- Observation of preschool children
- Study of areas of child development
- Written evaluations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Early Child Fundamentals
Early Child Physical Development
Early Child Intellectual Development **Credit 1.5** **11, 12**

Course Name **Semester 1** **Grade Level**

Course Description: Along with gaining practical teaching experience in the Career Center Preschools and learning techniques pertaining to children's development, this class stresses thematic lesson planning and teaching through centers. Opportunities are provided detailing specialized fields such as special education, speech, physical and occupational therapies and pediatric nursing. This class provides in depth instruction for those considering early childhood education.

Essential Requirements:

- Same as listed above.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE - HOUR BLOCK

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credits.

Early Child Social Development
Early Child Emotional Development **Credit 1** **11, 12**

Course Name **Semester 2** **Grade Level**

Course Description: You will gain practical teaching experience in one of the two Career Center Preschools, after learning teaching techniques in the high school classroom pertaining to children's physical, social, emotional and cognitive development. Emphasis is placed on education through social and emotional development. Opportunities are provided to learn what is entailed in various specialized fields such as special education, speech, physical and occupational therapies and pediatric nursing. Whatever path in life you choose children will likely be a part of it; don't miss this opportunity to brighten your life and the lives of many children.

Essential Requirements:

- Early childhood education training
- Teaching in the preschool
- Lesson planning for preschool
- Observation of preschool children
- Study of areas of child development
- Written evaluations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

TWO – HOUR BLOCK

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Children & Careers
Early Child Social Development
Early Child Emotional Development **Credit 1.5** **11, 12**

Course Name **Semester 2** **Grade Level**

Course Description: Along with gaining practical teaching experience in the Career Center Preschools and learning techniques pertaining to children's development, this class stresses thematic lesson planning and teaching through centers. Opportunities are provided to learn what is entailed in various specialized fields such as special education, speech, physical and occupational therapies and pediatric nursing. This class provides in depth instruction for those considering early childhood education.

Essential Requirements:

- Same as listed above.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

Elementary Internship
Fundamentals of Elementary Education

Elementary Teaching Techniques	**Credit 1.5**	**12**
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: In this internship you are placed with a master teacher in a preoperational age classroom. The academic study emphasized is a foundation in working with the primary age level child. This content is applied to the teaching opportunity in an elementary school.

Essential Requirements:

- Lesson planning, observing, teaching preoperational children
- Study of areas of child development
- Written evaluations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

THREE – HOUR BLOCK

Prerequisite Courses: 2 semesters of Early Childhood classes - Instructor discretion, with a Grade of “B” or better in fall & spring Early Childhood Education courses.

Applies toward graduation requirements of: 1 Career Technical Education credit

College EDU Human Growth & Development	Credit 1 3 Credits @MSU-Billings	11,12
Course Name	**Semester 1 & 2 (Full Year Course)**	**Grade Level**

Course Description: This class presents a comprehensive introduction to the study of human development including the developmental capabilities and needs of humans at different ages with respect to the physical, psychomotor, cognitive, social, emotional, and psychological domains that affect all education. The course includes 4.5 - 5 hrs per week lab at the Career Center Preschool.

Essential Requirements:

- Early childhood education training
- Teaching in the preschool
- Lesson planning for preschool
- Observation of preschool children
- Study of areas of child development
- Written evaluations

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

One Hour Class that is taken as part of a Two Hour Block (with Early Child Intellectual Development-1st Semester or part of a Three Hour Block (with Early Child Fundamentals and Early Child Intellectual Development 1st Semester). 2nd Semester – This class is taken with Early Child Emotional Development in a Two Hour Block or part of a Three Hour Block – with Child and Careers and Early Child Emotional Development.

Prerequisite Courses: None

Applies toward graduation requirements of: 1 Career Technical Education credit

PLTW Introduction to Engineering Design	1 Credit (1/2 each semester)	9, 10, 11, 12
Course Name	**Semesters 1 & 2 -1st Year (Full Year Course)**	**Grade Level**

Course Description: This course teaches problem-solving skills used in the design development process. Models of product solutions are created, analyzed and communicated using the solid-modeling computer design software AUTODESK Inventor. This course, combined with traditional mathematics courses and science courses in high school, introduces students to the scope, rigor and discipline of engineering prior to entering college. Students will understand technology as a tool for problem solving, the scientific process, engineering problem solving and the application of technology. Additionally, students will be prepared for the rigor of college level engineering programs.

Students should definitely be taking or plan to take higher level math and science for 4 years of high school. Students should be in the top 1/3 of their class. Students should be interested in pursuing a degree in science, math, technology or engineering. Other important traits are: interested in computers, self-motivated, creative with art and design and enjoys solving problems.

For additional information: www.pltw.org

Essential Requirements:

- Understand technology as a tool for problem solving
- Understand the scientific process, engineering problem solving and application of technology.
- Understand technological systems as they interface with other systems.

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE – HOUR CLASS / YEAR LONG CLASS
FALL ENROLLMENT ONLY

Freshman students should have strong Algebra skills, be enrolled in Geometry or Honors Geometry, and be academically driven and organized. Freshmen will be taking this course with upper classmen and accountable for the same standards. Freshmen with these qualities have been very successful in the Engineering Program.

Required: Students should be on a 4-year math track.

Prerequisite Courses: Enrolled in Geometry or Honors Geometry or successfully completed Geometry with a 'C' or better. Strong Algebra 1 skills needed. Students do not need to take any Drafting or Computer Programming courses to be eligible for this course.

Applies toward graduation requirements of: 1 Career Technical Education credit

PLTW Principles of Engineering - POE	1 Credit (1/2 each semester)	10, 11, 12
Course Name	**Semester 1 & 2 - 2,3,4 Year (Full Year Course)**	**Grade Level**

Course Description: This survey course of engineering exposes students to some of the major concepts they will encounter in a college engineering program. Students employ engineering and scientific concepts in the solution of design problems. Problem solving, research, math and science, critical thinking, and teamwork are essential components to success in the course. This course has historically been instrumental in helping students choose a college engineering program and field of study beyond high school. Many describe this course as physics and design work for engineering students.

Students should:

a. Definitely be taking or plan to take higher level math and science for 4 years of high school.
b. Be in the top ⅓ of their class.
c. Willing to work in teams and individually.
d. Be interested in pursuing a degree in science, technology, engineering, or mathematics.

In the event of over enrollment, the first criteria for consideration shall be current daily attendance. Attendance is required and documented.

One-hour class/Year long class.
Fall enrollment only.

Required: Students should be on a 4-year math/science track.

Prerequisite Course: Intro to Engineering Design with a C or better. Geometry.

Applies toward graduation requirements of: 1 Career Technical Education Credit

Note: Juniors and seniors who have not taken Intro to Engineering Design (IED) may be eligible for this course if they meet the requirements above. Please consult with instructor for consideration.

PLTW

Aerospace Engineering	**1 Credit (1/2 each semester)**	**10, 11, 12**
Course Name	**Semester 1 & 2 - 2,3,4 Year (Full Year Course)**	**Grade Level**

Course Description: This course propels students' learning in the fundamentals of flight and rocketry. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system and rockets. Students will participate in the NASA HUNCH Design and Prototyping project. This project will allow them the opportunity to innovate a product utilizing the Engineering Design Process. Students will culminate their project with a presentation of it to NASA Engineers and Astronauts.

- ➢ Students should definitely be taking or plan to take higher level math and science for 4 years of high school
- ➢ Students should be in the top 1/3 of their class. Students should be interested in pursuing a degree in science, math, technology or engineering. Other important traits are: interested in computers and are self-motivated.

Essential Requirements:

- Students should have an interest in aerospace and flight in general
- Students need to understand the scientific process, engineering problem solving and application of technology

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE-HOUR CLASS/YEAR LONG CLASS
FALL ENROLLMENT ONLY

Required: Students should be on a 4-year math track.

Prerequisite Courses: Requires a grade of "C" or higher in Intro to Engineering Design

Applies toward graduation requirements of: 1 Career Technical Education credit

PLTW Digital Electronics - DE	1 Credit (1/2 each semester)	10, 11, 12
Course Name	**Semester 1 & 2 - 2,3,4 Year (Full Year Course)**	**Grade Level**

Course Description: Digital Electronics is commonly a required college course for any student pursuing a degree in mechanical, electrical, computer, aerospace, biomedical, or industrial engineering.

At Montana State University much of the content of this course is taught in the fall of the sophomore year in these engineering programs. Students learn soldering, prototyping of circuit boards, digital and Boolean logic, basic programming of programmable logic controllers, units and measurement, and circuit design. It is a very project oriented course with math and logic applications.

Highly recommended for most fields of engineering studies in college.

Students should:

a. Definitely be taking or plan to take higher level math and science for 4 years of high school
b. Be in the top ⅓ of their class
c. Willing to work in teams and individually
d. Be interested in pursuing a degree in science, technology, engineering or mathematics

In the event of over enrollment the first criteria for consideration shall be current daily attendance. Attendance is required and documented.

One-hour class/Year-long class.
Fall enrollment only.

Required: Students should be on a 4-year math/science track.

Prerequisite Course: Intro to Engineering Design with a C or better. Geometry.

Applies toward graduation requirements of: 1 Career Technical Education Credit

Note: Juniors and seniors who have not taken Intro to Engineering Design (IED) may be eligible for this course if they meet the requirements listed above. Please consult with instructor for consideration.

PLTW

Engineering Capstone	**1 Credit (1/2 each semester)**	**11, 12**
Course Name	**Semester 1 & 2 – 3rd/4th year (Full Year Course)**	**Grade Level**

Course Description: The Capstone class is the culmination of the Engineering Design, Digital Electronics, Principles of Engineering, and Aerospace Engineering course work. It offers the opportunity for the students to work in design teams to solve problems and meet needs by relying upon their prior knowledge, experience, and practice developed in previous engineering courses. Given that students have diverse strengths, backgrounds, and interests, i.e. computer programming, math, electronics, physics, design, organization, etc., they will be teamed based upon expertise to create diversity within the groups much like the dynamic found in real engineering design teams. Teams will expand upon processes developed in their earlier engineering courses, i.e. brainstorming, field observation and research, professional contact and interviews, documentation, mock-ups, 3D modeling, prototyping, field testing, process recording, proposal communication, etc.

Students should definitely be taking or plan to take higher level math and science for 4 years of high school. Students should be in the top 1/3 of their class. Students should be interested in pursuing a college degree in Engineering, Science, Mathematics, or Technology.

Essential Requirements:

- Apply math and science to the engineering field
- Understand the problem solving process, manufacturing process and application of technology
- Understand technology and its effects on society
- Understanding of the engineering design process
- Problem solving, organization, and computer skills
- Willing to work in teams and individually

In the event of over enrollment first criteria for consideration shall be current daily attendance. Attendance is required and documented.

<u>ONE-HOUR CLASS/YEAR LONG CLASS</u>
FALL ENROLLMENT ONLY

Required: Students should be on a 4-year math track.

Prerequisite Courses: Requires a grade of “C” or higher in two of the following: Introduction to Engineering Design, Principles of Engineering, Digital Electronics, and Aerospace Engineering and/or Instructor approval.

Applies toward graduation requirements of: 1 Career Technical Education credit
***Note: Juniors and Seniors who have not taken Intro to Engineering Design (IED) may be eligible for this course if they meet the requirements listed above. Please consult with instructor for consideration.

Transportation Internship	Credit 1/2	11, 12
Course Name	**Semester 1 and/or 2**	**Grade Level**

Course Description: Air Operations students will be introduced to current methods, practices, policies and work environment behaviors for airline ramp and cargo sort functions. Students are expected to learn the processes for successfully completing each pre-deployment training including employee orientation, safety on the job, work schedules, and communication. Pre and post-flight data transfer and record keeping, IATA terminology, FAA Safety and Regulatory Familiarization and teamwork methods designed to get the airlines in and out on-time with zero defects.

Students will be expected to pass each training evolution with a satisfactory grade and complete the work assignments as assigned by supervisory staff, on-time, as described in the training with no accidents or unsafe operations. Students will be assigned a mentor to observe and correct deficient behaviors prior to being assigned duties without supervision. Successful completion of training programs allows students to conduct ramp and sort operation per the daily operating plan.

Instructors, will evaluate students for timeliness, attention to detail, ability to follow instructions, safety, productivity, teamwork, scan errors, documentation, math (if doing load plans) correct procedures and overall attitude.

Essential Requirements:

- Willing to work in teams and individually
- Basic math skills
- Ability to follow instructions
- Ability to work safely
- Ability to follow a schedule and be timely
- Good attitude in a work environment

In the event of over enrollment **first criteria** for consideration shall be current daily attendance. Attendance is required and documented.

ONE-TWO HOUR CLASS

Prerequisite Courses: Application and Interview process. Please see your counselor for information

Applies toward graduation requirements of: 1 Career Technical Education credit

School to Career	Credit 1/2 to 1 1/2	12
Course Name	**Semester 1 or 2**	**Grade Level**

Course Description: Credit may be earned through a workplace experience plan that has been approved by the Career Center Director/and or Assistant Director. School to Career credit should be directly connected to a current course the student is enrolled in at the Career Center.

Specific criteria/standards and a contract must be signed by student and adhered to.

Note: Career Center students can apply for a one-hour class of School to Career.

This must have an Associate Principal and counselor approval.

Prerequisite Courses: Contract signed by employer indicating hours worked.

Applies toward graduation requirements of: 7 Elective credits

Workplace Experience Credit	Credit 1/2	Grade 11 or 12
Course Name	**Semesters 1 or 2**	**Grade Level**

Course Description: Workplace Experience Credit provides students with work experience in a field related to the career cluster/pathway of interest. Course outcomes and goals are set cooperatively by the student, sponsoring teacher, and partnering business. Work Experience is non-paid or paid work experience in the form of a high school elective class. Billings Public Schools students have the opportunity to participate in a field internship, which enables them to leave campus and apply their skills in an off-campus professional industry setting. Interns are required to complete a minimum of total 90 hours per semester with the majority of that time in the workplace. These courses may include classroom activities with the sponsoring teacher, involving further study of the field or discussion regarding experiences that students encounter in the workplace. Interns are supported throughout the program by their instructor and are graded on hours worked, reflections, and most importantly, evaluations by their supervisors. Students earn course credit for their experience, as well as gain valuable work experience to add to their resumes.

Coordination of this course credit will be handled by the school's respective Career Coach with support from the associate and counselors.

Prerequisite Qualifications: Student must be in 11th or 12th grade in good standing and on track to graduate and should have successfully completed prior course work in the career cluster/pathway of interest.

Sponsoring teacher must meet the licensure requirements (Ag-Ed, Business, Marketing, Graphics, Culinary, FCS, Tech Ed, Health Sciences, Performing Arts, Science, IT, and Engineering) of the career cluster/pathway that the student is requesting credit.

Partner Business, whether offering a paid or unpaid opportunity, must be willing to submit background checks for themselves and any related employee

or have their own background check process in place that meets the district's threshold for acceptance.

Applies toward graduation requirements of: 7 Elective Credits