



Forward Thinking, High Achieving.

Career & Technical Education Curriculum

Adopted June, 2011

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CURRICULUM REVIEW COMMITTEE

Name	Grade	Discipline	Building
Bray, Maria	6-8	Computer Applications	Meadow Hill
Dirnberger, Kasey	6-8	Computer Applications	C.S. Porter
Moore, Juanita	6-8	Computer Applications	Washington
Vernier, Steve	9-12	Ag-Ed	Big Sky
Cole, Beth	9-12	Business	Hellgate
Huguet, Beth	9-12	Business	Hellgate
O'Reilly, Jerry	9-12	Business	Big Sky
Roe, Nicki	9-12	Business	Big Sky
Schultz, Cindy	9-12	Business	Sentinel
Bryn, Laurie	9-12	FACS	Sentinel
Cainan, Pam	9-12	FACS	Big Sky
Courtney, Jennifer	9-12	FACS	Seeley-Swan
Fillmore, Mary	9-12	FACS	Big Sky
Nichols, Audrey	9-12	FACS	Hellgate
Reimers, Lois	9-12	FACS	Sentinel
Semmelroth, Cathy	9-12	FACS	Hellgate
Mack, Amy	9-12	Health Sciences	Sentinel
Burtch, Dave	9-12	Industrial Technology	Sentinel
Jacaruso, Chris	9-12	Industrial Technology	Hellgate
Leik, Tom	9-12	Industrial Technology	Big Sky

Swofford, Jim	9-12	Industrial Technology	Hellgate
Hainline, Julie	K-12	Curriculum/Title 1 Coordinator	Administration
Clausen, Matt	K-12	Creativity, Innovation, and Technology Director	Administration
Thane, Mark	K-12	Executive Director	Administration

Bold indicates Steering Committee

MISSION

At Missoula County Public Schools (MCPS), our mission is to ensure that each student achieves his/her full and unique potential.

VISION

The MCPS Board of Trustees represents all citizens of the District in their stewardship of Missoula County Public Schools. To this end, the Strategic Plan includes the following vision that describes what the Board of Trustees strives to provide.

MCPS Learning Environment

MCPS is a non-judgmental, inclusive, personalized, adaptable, learning environment where individual talents are identified and explored and children are fully challenged in small learning communities with adults who care. Children are celebrated and “membership” in the school is facilitated for every child. Children have stimulating interdependent and independent learning experiences and learning is related to the outside world at all grade levels. A climate of respect exists, and rules and policies are in place, understood, and consistently applied within buildings and across the District. District high schools continue to be evaluated with movement toward a model that addresses identified issues; meets the District’s vision and goals; assures equity and challenge regarding class and program opportunities regardless of building attended; encourages active involvement of all students; facilitates the flexibility (scheduling) to accommodate the diverse needs of today’s high school students; and works collaboratively with families, teachers, and counselors to successfully transition students from “feeder” Districts.

MCPS Educators

Educators at MCPS are experts in their fields, critical thinkers, problem-solvers, and planners who are actively involved in accomplishing District goals and strategies. Educators’ enthusiasm, nurturing, and love for working with children are demonstrated by efforts to meet the needs and goals of individual children and their learning styles. MCPS educators creatively stimulate and challenge students with the result being children who discover they can do more than they ever imagined. All staff members successfully communicate and are competent in behavior management strategies. They value opportunities to work collaboratively to increase their individual depth and breadth of knowledge about learning as well as subject matter. MCPS educators mirror local diversity and work to understand the local community and its educational values and goals. Professional development is aligned with District vision and goals, curriculum, and assessment data. MCPS educators are publicly recognized for creative, successful strategies and their ability to teach.

MCPS Instruction

MCPS offers a variety of “whole child” instructional programs, practices, and literatures that are integrated rather than compartmentalized – curriculum content to content, building to building, and throughout the K-12 system. Decisions are made based on instructional goals, and best practices and processes in education are embraced. Teaching plans, aligned to learning targets, guide all classrooms. Technology is used appropriately. A number of assessment tools are used in addition to current required “testing”.

MCPS Facilities

All MCPS facilities are safe, clean and inviting; age-appropriate; in good repair; wired for technology and “wireless” for information access; handicapped accessible; family-friendly; and have space for all activities. Wherever possible, buildings are designed and operated to address societal goals such as energy conservation and recycling. At the same time, the District recognizes the importance of buildings that are historical community assets. MCPS exhibits stewardship and responsible planning regarding facilities through a facilities master plan. It works carefully with the community regarding use and disposition of school buildings and appraises the real and long term value of District assets before making decisions. The District recognizes that budget and size are not the only influencing factors regarding the opening and closing of buildings and reconfiguring attendance boundaries. Facilities are considered vehicles for public education and the District uses public services to support them.

MCPS Community

MCPS is committed to implementation of an active model for genuine community partnership and ongoing evaluation of the success of that model. Through that partnership, the District develops understanding of the needs and desires of the community regarding its public schools and charges the community with active involvement. MCPS provides access to information and facilitates two-way communication and ongoing conversations among students, educators, parents, the Board and the general public. The District’s Strategic Plan is a dynamic document and timelines and benchmarks for achieving its desired ends are shared, discussed, and monitored with the community. The District facilitates attachment and involvement and capitalizes on volunteer expertise in the community. Active involvement with stakeholders (i.e., families/parents, students, teachers, counselors, etc.) from “feeder” districts, internal and external to MCPS, results in a smooth transition for students and their families.

STRATEGIES

In support of achieving the vision and goals described in the 2007-2012 Strategic Plan, MCPS actively applies the following broad strategies:

- Use planned and sequential “building blocks” in development and delivery of curriculum from kindergarten through twelfth grade.
- Use assessment and instruction to challenge students to meet their individual potential.
- Analyze student achievement data frequently. Provide specific interventions when learning problems are identified.
- Encourage parent and adult involvement in support of academic and activity programs.
- Use school/community partnerships to better understand the needs and desires of the community regarding its public schools.

GUIDING PRINCIPLES

The MCPS Board of Trustees, elected by the community, has an obligation to safeguard the public’s trust in public education, and our decisions and actions should reflect that obligation. District dollars should be used effectively and efficiently to achieve positive results for students.

The MCPS Board of Trustees bases its decisions and actions on the following set of guiding principles.

- We believe the District has a responsibility to provide students with a safe, motivating, innovative learning environment.
- We believe that all children, regardless of differences, deserve to be fully challenged and equipped to meet their individual potential.
- We believe that K-12 education should address the “whole child” and that holistic education leads to: A value for academic knowledge and competency; an appreciation for one’s broader community; a world view; and life-long love for learning.
- We believe that instructional competency and educational best practices in the classroom are critical factors in reaching individual student potential.
- We believe that physical and emotional health and wellness are important contributing factors to achieving the individual and collective goals of students and staff.
- We believe that a professional and supportive working environment is essential.
- We believe parent and adult involvement support, strengthen, and expand learning.
- We believe that a public school district has a responsibility to build community; develop partnership and cohesiveness in the community; and challenge the community to be everything it can be.

(Finalized by the MCPS Board of Trustees, August, 2007.)

MISSOULA COUNTY PUBLIC SCHOOLS

FIVE MEASURABLE DISTRICT GOALS

- Achievement and graduation for all students, regardless of their circumstances and abilities.
- Refine and implement a quality supervision and evaluation program for all staff.
- Define and implement a quality professional development program that encompasses best practices and supports the needs of all staff.
- Restructure the organization to become more efficient, effective and accountable to support the goals of the District.
- Cultivate and enhance staff, student, parent, business and community involvement.

PROFESSIONAL DEVELOPMENT

In 2008, the Missoula County Public Schools Board of Trustees approved the district goals above in order to address the needs of 21st Century learners. One of the goals focuses on professional development “to provide staff with best practices and the expertise to make a difference for all students regardless of their circumstances.”

(Superintendent, Dr. Alex Apostle’s, message August, 2008.)

Ongoing, job-embedded professional development builds a foundation of teacher excellence, a critical component to improving student achievement. Teachers must have not only an extensive knowledge of Career and Technical Education content, but must also possess a deep understanding of how students learn. Appropriate content and pedagogical preparation enables teachers to design lessons and implement curriculum using research proven practices and strategies in an environment where all students have an opportunity to succeed.

ASSESSMENT

Assessment means finding out what students know and are able to do. It is intended to improve teaching and learning. Information gathered through formative assessment assists teachers during instructional planning to determine students’ prior knowledge, provide feedback to students during instruction, make decisions on how to modify instruction, and identify strengths and weaknesses. In Career and Technical Education classes, a variety of data is collected to provide evidence of achievement and success to students, families, and the community.

Principles of effective assessment are as follows:

1. Treat assessment as an integral part of curriculum and instruction.
2. Direct assessments toward essential learning.
3. Set high standards for teaching and learning.
4. Clarify learning targets early.
5. Assess student performance through authentic tasks.
6. Collect multiple indicators of learning.
7. Provide ample opportunities for students to learn.

(Adapted from Walter Parker, Science in Elementary Education, Upper Saddle River, NJ: Pearson, 2005.)

READING AND WRITING IN CAREER AND TECHNICAL EDUCATION

In the context of learning and *experiencing* Career and Technical Education (CTE) concepts, a student builds background knowledge and acquires academic vocabulary. Because research indicates that CTE reading requires discipline-specific background knowledge and vocabulary, a student is better able to comprehend text after engaging in rich experiences and explicit instruction. CTE teachers recognize that the skills required to read CTE text differ from those used during the reading of fiction or other content area text. By utilizing and explicitly teaching before, during, and after reading comprehension strategies in the context of a CTE classroom, a student's learning can be increased greatly.

Additionally, the inquiry-based approach to teaching CTE provides a student with an authentic setting for writing. Observation notes and data gathered from firsthand investigations are recorded and shared through the real-world writing of notebook entries, lab reports, articles, or research reports. CTE teachers also recognize that technical and scientific writing differs from the writing required in other content areas. Therefore, teachers model specific writing strategies to support the development of technical writing skills. As a student applies the writing process, CTE content knowledge deepens and writing skills increase.

MEETING DIVERSE STUDENT NEEDS

Students with diverse needs--those with unique abilities and/or disabilities--will have differentiated opportunities to achieve learning targets, benchmarks, and standards at rates and in manners consistent with their needs. Accommodations and modifications will be implemented to ensure that all students have the opportunity to meet established learning goals and to gain full access to the curriculum.

The needs of struggling learners will be met in a variety of ways in the classroom both through informal intervention and formally prescribed intervention, as necessary.

Gifted students and students of high ability require, at times, differentiated instruction and additional challenge beyond what the standard curriculum can provide. These provisions can include but are not limited to: more challenging content or assignments, critical and higher level thinking skills, instructional grouping, extension activities, and independent research.

Students at all ability levels benefit as they explore concepts in depth through inquiry-based learning.

TECHNOLOGY

The integration of curriculum and technology is essential to prepare today's students for participation in a viable democratic society. Therefore, the MCPS Career and Technical Education Curriculum Committee views technology as integral to the CTE curriculum. In this document, technology may refer to the instruments and techniques for investigations, inquiry, and analysis, as well as to technological literacy, knowledge of technologies and the associated costs, risks, and benefits to society.

LIBRARY MEDIA

Teacher librarians play an essential role in curriculum implementation. They are important instructional partners and consultants in supporting and expanding existing curricula. As information specialists, teacher librarians work collaboratively with students, teachers, administrators, and parents to:

- Provide knowledge of availability and suitability of information resources to support the implementation of Montana and MCPS Standards. This is particularly relevant with the Indian Education for All Law.
- Partner in educating students, developing curricula, and integrating resources into teaching and learning.
- Serve as an expert in organizing, synthesizing, and communicating information. Acquisition, organization, and dissemination of resources to support the curricular areas through the library media center are cost-effective methods for the entire school district.
- Teach and integrate literature and information skills into the curriculum. They plan and teach collaboratively based on the needs of the student.

(Adapted from ALA statements, and School Libraries Work!, Scholastic Library Publishing, c2008.)

CAREER & TECHNICAL STUDENT ORGANIZATIONS

The MCPS Business curriculum supports two leading co-curricular CTSO (Career & Technical Student Organizations) for students pursuing careers in business management, office administration, information technology, marketing, finance, and other related career fields. BPA (Business Professionals of America) and DECA (Distributive Education Clubs of America) support business and information technology educators by offering curriculum, resources, and materials based on national standards. While preparing emerging leaders and entrepreneurs, both BPA and DECA provide MCPS business students with the opportunity to extend their learning from the classroom to state and national competitive arenas. These CTSOs manage and operate school stores in each respective high school and provide the students with managerial and retail work experiences.

INDIAN EDUCATION FOR ALL

Missoula County Public Schools is committed to developing for all students an understanding of American and Montana Indian people and their histories, fostering respect for their cultures. In view of the unique role of the American Indian peoples in the development of the United States and the experience of Montana tribes in particular, their history and culture will be integrated wherever appropriate in the instruction of MCPS students, in accordance with the state constitution, statutes, and curriculum standards.

ESSENTIAL UNDERSTANDINGS REGARDING MONTANA INDIANS

1. There is great diversity among the 12 tribal Nations of Montana in their languages, cultures, histories, and governments. Each Nation has a distinct and unique cultural heritage that contributes to modern Montana.
2. There is great diversity among individual American Indians as identity is developed, defined, and redefined by many entities, organizations, and people. There is a continuum of Indian identity ranging from assimilated to traditional and this is unique to each individual. There is no generic American Indian.
3. The ideologies of Native traditional beliefs and spirituality persist into modern day life as tribal cultures, traditions and languages are still practiced by many American Indian people and are incorporated into how tribes govern and manage their affairs. Additionally, each tribe has their own oral history beginning with their genesis that is a valid as written histories. These histories pre-date the “discovery” of North America.
4. Reservations are land that have been reserved by the tribes for their own use through treaties and was not “given” to them. The principle that land should be acquired from the Indians only through their consent with treaties involved three assumptions:
 - a. That both parties to treaties were sovereign powers.
 - b. Those Indian tribes had some form of transferable title to the land.
 - c. That acquisition of Indian lands was solely a government matter not to be left to individual colonists.
5. There were many federal policies put into place throughout American history that have impacted Indian people and shape who they are today. Much of Indian history can be related through several major federal policy periods.
6. History is a story most often related through the subjective experience of the teller. Histories are being rediscovered and revised. History told from an Indian perspective conflicts with what most of mainstream history tells us.
7. Under the American legal system, Indian tribes have sovereign powers separate and independent from the federal and state governments. However, the extent and breadth of tribal sovereignty is not the same for each tribe.

Missoula County Public Schools

INSTRUCTION

2450

Recognition of American Indian Peoples' Culture and Heritage in the Curriculum Process

The Board fully supports Article X of the Montana Constitution and is actively committed to develop for all students an understanding of American and Montana Indian people and their histories, as well as foster respect for their respective cultures.

Because of the unique position and place in American history, the American Indian peoples' role in the development of the United States, with emphasis on the experience of the Montana Tribes, shall be included wherever appropriate in the instruction of Missoula County Public School students, in accordance with the state Constitution and state standards. Instructions concerning the historic and current roles of Indian people shall be delivered in a respectful, informative, and sensitive manner. When the social studies curriculum and other curricula are updated according to the District's curriculum cycle, the written curriculum shall reflect this policy. Staff development will be provided pertinent to curriculum implementation.

NOTE: The District has nondiscriminatory policies in effect, which may be referenced.

Legal Reference: Art. X, Sec. 1(2), Montana Constitution §§ 20-1-501, et seq.,
MCA Recognition of American Indian cultural heritage - legislative intent

10.55.603 ARM	Curriculum Development and Assessment
10.55.701 ARM	Board of Trustees
10.55.803 ARM	Learner Access

Policy History:

History of Previous File 2121:

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Approved First Reading, 4/11/00

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Revised at C&I Committee, 5/2/00

Adopted on: October 10, 2000

Adopted on: January 14, 2003 (Policy recodified in Series 2000 adoption)

TEACHING ABOUT CONTROVERSIAL ISSUES

Missoula County Public Schools

INSTRUCTION

2330

Academic Freedom

The Board recognizes and supports Academic Freedom as necessary for an environment conducive to the free exchange of ideas and learning.

Academic Freedom is the view that if teachers are to promote the growth of knowledge, they require the freedom to teach and conduct inquiry without fear of sanction or reprisals should they present an unpopular or controversial idea.

Teachers shall help students learn to objectively and respectfully examine differences of opinion, analyze and evaluate facts and their sources, and form their own reasoned judgments about the relative value of competing perspectives.

The Board directs the teaching staff to:

- Refrain from using one's classroom position to promote one's own ideology or any partisan point of view.
- Ensure that issues presented pertain to course objectives.
- Provide students opportunities to develop critical thinking: that is the ability to detect propaganda and to distinguish between fact, opinion and misinformation.
- Respect each student's right to form, choose, hold and/or change an opinion or belief.
- Create an environment in which students are free to form judgments independently.

Any person may file complaints pursuant to this policy through Board Policy 4310P, the uniform grievance procedure.

This policy may not be used to challenge educational materials themselves. Please see:
BP 2313 Dealing with Challenged Educational Resources
BP 2313P Procedure for Dealing with Challenged Educational Resources

Legal Reference: Article X, Sec. 8, Montana Constitution - School district trustees
 § 20-3-324(16) and (17), MCA Powers and duties

Policy History:

Adopted on: January 14, 2003

Revision presented to PN&P Committee on March 25, 2009

Approved on first reading: May 12, 2009

Posted for public comment until: July 22, 2009

Adopted on second reading: August 11, 2009

Introduction to Animal & Plant Science

Grades 9-12

Units of Credit: One Year (Elective)

Prerequisites: None

Course Description:

This course consists of classroom and lab exercises emphasizing academics and hands-on learning in animal and plant science, as well as leadership development through the FFA, and Supervised Agricultural Experience (SAE). Instruction and assessment include lecture, assignment, performance and written testing, and results employing scientific method. Students will gain experience with veterinary tools, electronic scales, computerized records, and a wide range of tools that will help in career path selection and implementation.

Topics:

- Livestock evaluation
- Livestock I.D.
- Meats Evaluation
- Animal Anatomy
- Digestion & Reproduction
- Feeds & Feeding + Health Care
- Intro to Plant & Soil Science
- Plant Propagation
- O.H Industry
- Plant Health
- Power & Hand Tool ID + Operation
- FFA Leadership-CDE & the S.A.E.

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (K,P)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can evaluate the genetic quality of livestock. (K,S,R)
2. I can recognize reproduction tracks and fundamentals of reproduction. (K)
3. I can select and utilize appropriate feed programs. (K,S)
4. I can describe livestock digestive systems. (K)
5. I can identify plant parts. (K)
6. I can identify and select soil media. (K)
7. I can practice plant reproduction using seed and vegetative propagation. (K,S)
8. I can promote good plant health - (pruning). (K,S,R)
9. I can select and maintain turf grass. (K)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can use veterinary tools for basic care. (K,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can learn and identify the proper use of hand & small power tools. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can run a small business (SAE). (K,S,R,P)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can identify contemporary breeds of beef, swine, and sheep. (K)
2. I can recognize basic retail cuts of meat. (K)
3. I can test and select correct fertilizers (NPK). (K,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
- 2.. I can research, write and present on the technical content utilizing academic skills found. in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (KS)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Agriculture Education 2

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Introduction to Animal & Plant Science

Course Description:

This course includes instruction and hands-on learning experiences in applied animal physiology, Montana's beef cattle industry, greenhouse management, electrical wiring and electricity, engine maintenance, carpentry, metal fabrication (MIG welding), tractor operation and safety, and leadership development.

Topics:

- Animal physiology
- Montana's Beef Cattle Industry
- Greenhouse Management
- Electrical Wiring and Electricity
- Engine Maintenance
- Carpentry
- Metal Fabrication (MIG welding)
- Tractor Operation and Safety
- Leadership Development - FFA

NOTE: Throughout this document, learning target types are identified as knowledge ("K"), reasoning ("R"), skill ("S"), or product ("P").

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can identify beef breeds of the northwest. (K)
2. I can understand the physiology of digestion in beef. (K)
3. I can roof, floor, and wall frame. (K,S,P)
4. I can distinguish AC and DC electrical service. (K)
5. I can use leadership and communication skills effectively. (K,S,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can operate and maintain a greenhouse. (K,S,R,P)
2. I can operate a MIG welder. (K,S)
3. I can use basic joint welding in metal fabrication. (K,S)
4. I can safely operate heavy agricultural tractors. (K,S,R)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can wire basic branch circuits single and double pole service. (K,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can service basic gas and diesel power plants. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can read building construction plans. (*K,S*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*KS*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Agriculture Education 3

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Agriculture Education 2

Course Description:

In Agriculture Education 3, students receive instruction and lab experience in computer application in agriculture, agribusiness co-ops and marketing, CAD, CAM, CNC Technology, Range Management, Genetics, Forestry, Parasitology, and oral communication skills in leadership development. This course is designed to focus on career development and address a rigorous application of skills to promote career selection and growth.

Topics:

- Agribusiness
- Range Management
- Genetics
- CAD CAM CNC
- Forestry
- Parasitology
- Oral Communication & Leadership Development = FFA

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate record keeping skills including the production of a balance sheet, income statement, and cash flow statement. (K,S)
2. I can demonstrate knowledge of range management with respects to stocking rates (AUM), grazing systems and land classification. (K,S)
3. I can run a CNC (computerized numerical coding) utilizing the parts geometry that is created. (K,S)
4. I can describe the life cycle of common parasites. (K)
5. I can describe strategies to control parasites in livestock. (K)
6. I can measure and calculate board feet. (K,S)
7. I can identify proper forestry management strategies. (K,R)
8. I can explain how genotype and phenotype are different. (K,R)
9. I can speak publicly and develop leadership skills utilized in all professions. (K,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can generate a CAD computer generated design program. (K,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can generate a CAD (computer aided design) program. (K,S)

2. I can select a CAM (computer aid machining) program for the appropriate task. (K)
3. I can generate and interpret a punnet square. (R,S,P)
4. I can distinguish between homozygous and heterozygous genes. (K)
5. I can select correct breeding programs to optimize desired results. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can select a CAM computer aided machine. (K,R)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice basic business math including depreciation and return on investment. (K,S)
2. I can use basic commodity marking skills to include hedging, speculating, and cash markets. (K,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Agriculture Education 4

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Agriculture Education 3

Course Description:

In Agriculture Education 4, students receive further instruction and lab experience in computer application in agriculture, agribusiness co-ops and marketing, CAD, CAM, CNC Technology, Range Management, Genetics, Forestry, Parasitology, and oral communication skills in leadership development. This course is designed to continue the focus on career development and further address a rigorous application of skills to promote career selection and growth.

Topics:

- Agribusiness
- Range Management
- Genetics
- CAD CAM CNC
- Forestry
- Parasitology
- Oral Communication & Leadership Development = FFA

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate record keeping skills including the production of a balance sheet, income statement, and cash flow statement. (K,S)
2. I can demonstrate knowledge of range management with respects to stocking rates (AUM), grazing systems and land classification. (K)
3. I can run a CNC (computerized numerical coding) utilizing the parts geometry that is created. (K,S)
4. I can describe the life cycle of common parasites. (K)
5. I can describe strategies to control parasites in livestock. (K)
6. I can measure and calculate board feet. (K,S)
7. I can identify proper forestry management strategies. (K,R)
8. I can explain how genotype and phenotype are different. (K,R)
9. I can speak publicly and develop leadership skills utilized in all professions. (K,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can generate a CAD (computer aided design) program. (K,S)

2. I can select a CAM (computer aid machining) program for the appropriate task. (K,R)
3. I can generate and interpret a punnet square. (K,S)
4. I can distinguish between homozygous and heterozygous genes. (K,R)
5. I can select correct breeding programs to optimize desired results. (K,R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice basic business math including depreciation and return on investment. (K,S)
2. I can use basic commodity marking skills to include hedging, speculating, and cash markets. (K,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Applied Veterinary Science

Grades 10-12

Units of Credit: Choice of One Year Career & Technical Education (CTE) Elective
OR One Year of Science

Prerequisites: Two successful years of science, can run concurrent with second year of science, 1 year of math and Introduction to Animal & Plant Science preferred.

Course Description:

In this advanced Agriculture Science course, students will explore the fields of veterinary and medical science. Students will study the role of a veterinarian and veterinary technician in the diagnosis and treatment of animal diseases. This class will provide a realistic preview of both medical work and the academic rigor needed to achieve success in the profession. Students will engage in research, perform a variety of dissections, carry out real laboratory tests, and conduct surgical and medical treatments on livestock. Students will also perform a field externship experience. This is an applied medical science course and is therefore useful for any student pursuing a career in medicine.

Topics:

- Introduction to the FFA
- SAE – Field Externship Requirements
- Safety
- Medical Terminology
- Anatomy and Physiology
- Artificial Breeding Technology
- Animal Breeds and Genetics
- Laboratory Analysis and Procedures
- Examination and Treatment of Animals
- Surgical and Sterilization Procedures
- Disease Classification
- Resume Writing and Career Development

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)

2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (S)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (K,P)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can obtain excellent professional work habits, work skills, and professional contacts during the 20 hour externship experience. (K,S,R)
2. I can artificially synchronize the heat cycle of livestock. (K,S)
3. I can artificially inseminate livestock. (K,S)
4. I can collect blood and perform genetic testing on livestock. (K,S,P)
5. I can demonstrate an understanding of the concepts and the ability to perform skills related to microbiology, including sensitivity tests and isolating cultures. (K,S)
6. I can demonstrate an understanding and the ability to perform skills related to hematology including drawing and processing blood from livestock. (K,S)
7. I can demonstrate an understanding the ability to perform skills related to parasitology

- including fecal cultures. (K,S)
8. I can demonstrate and understanding and the ability to perform skills related to urinalysis and other lab tests. (K,S)
 9. I can correctly demonstrate preparation for surgical procedures, to include preparing and sterilizing instruments and preparing the patient for surgery. (K,S,R)
 10. I can demonstrate how to maintain a sterile work zone during surgery. (K,S)
 11. I can demonstrate the ability to conduct common surgical procedures like lancing abscesses, castration, docking, notching, caponizing, debeaking and others. (K,S)
 12. I can demonstrate the ability to perform basic suture patterns on live animals as well as a purse string suture. (K,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate procedures and use equipment for the safe handling/restraint of animals. (K,S)
2. I can correctly demonstrate infectious control practices, such as hand washing, gowning, gloving, and masking. (K)
3. I can demonstrate appropriate handling and disposal of biohazardous waste. (K)
4. I can demonstrate the appropriate use and disposal of needles and sharps. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can dissect specimens in order to understand anatomy and physiology. (K,S)
2. I can properly use equipment necessary for a physical examination. (K,S,R)
3. I can properly fill, read, and administer medicine through a syringe. (K,S,R)
4. I can apply the proper bandages and splints to various parts of the animal's body. (K,S,R)
5. I can assist with the parturition of livestock. (K,S)
6. I can demonstrate proper preparation for surgery including gowning and hand washing. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can return medical and veterinary equipment to its proper place, cleaned and ready for reuse. (K)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can prepare for an externship opportunity by developing skills that will be used by members of the medical profession. (K,R,S)
2. I can detect the estrus and anestrus cycle of livestock. (K,S,R)
3. I can select sires to improve the school's livestock herds. (K,R,S)
4. I can research medical career opportunities and the requirements for those careers. (K,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

BUSINESS & MARKETING

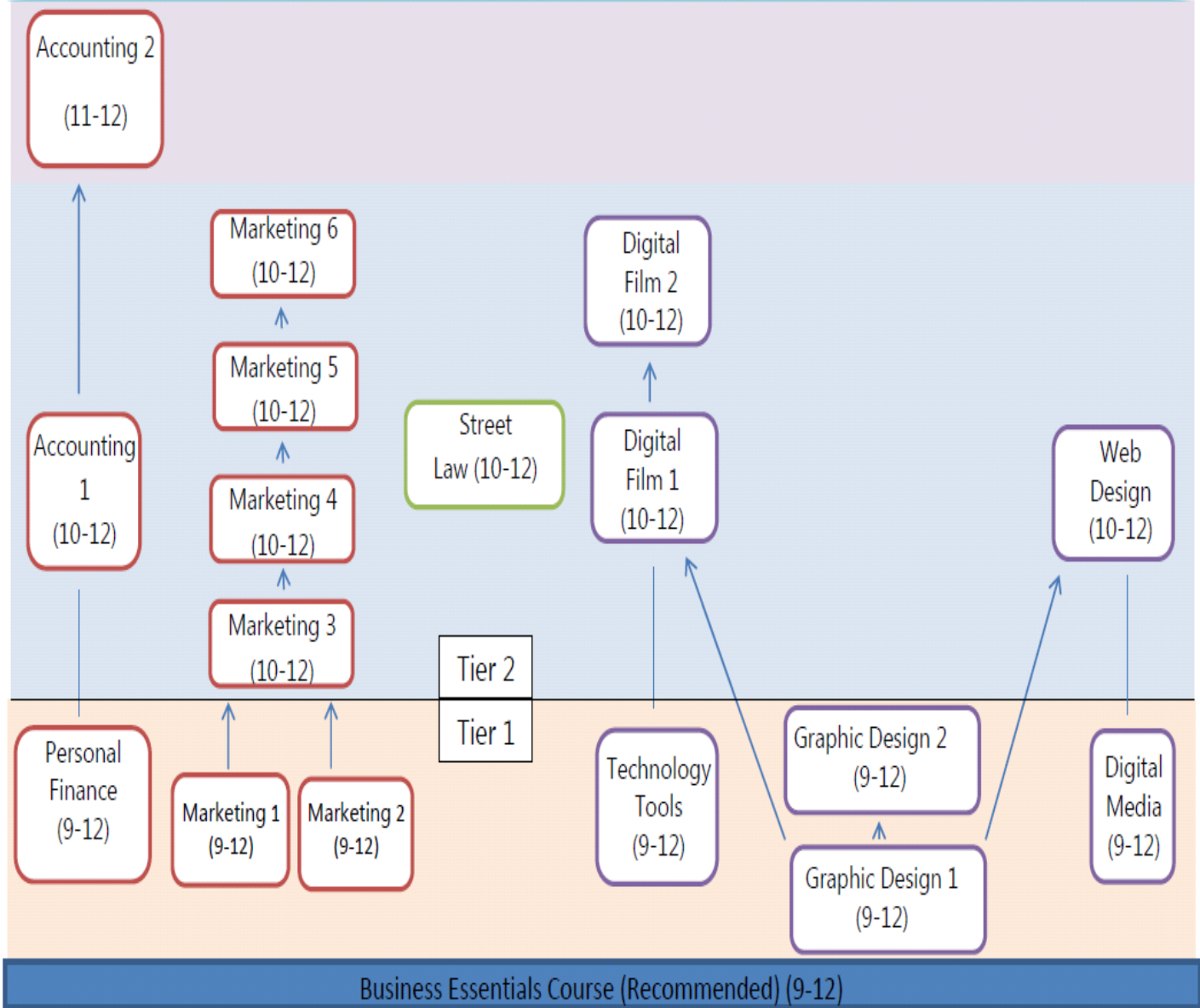
Montana Career Fields/Big Sky Pathways

Business, Management &
Information Systems

Arts & Communication

Human Services & Resources

Independent Study/Business Co-op (11-12)



High School Business Department

3rd – 8th Grade

Keyboarding/Computer Literacy

Grades 3, 4, 5

Length of Course:

Daily: 20 minute periods, daily for six-weeks (at each level)

Grade 3: 6 weeks

Grade 4: 6 weeks

Grade 5: 6 weeks

Prerequisites:

None

Course Description:

All students must acquire touch-keyboarding skills and have a basic knowledge of computer literacy prior to enrollment in high school. The content of Keyboarding/Computer Literacy is arranged around the five Montana State Vocational Technical Education Standards. These standards include Technical Skills and Content Knowledge, Career and Life Planning, Skills for Life and Work, and Structure of Organizations and Work. After introduction/review of the keyboard, emphasis is placed on skill building and introduction of formatting (reports) as well as creating, formatting, saving, editing files on a network, and file management. Internet is available for research and career exploration. This is a lab class—all work is completed on computers used during class.

Topics:

- Touch-typing skills
- Improve speed and accuracy
- Refine technique (hand and wrist placement, posture)
- Basic Format documents
- Strengthen “soft skills” (follow directions, organize tasks, work as a team member, and make decisions)
- Augment computer literacy skills (hardware, software, file management)
- Expand knowledge of computer applications.
- Promote Internet safety, enhance search abilities, and practice proper digital citizenship.

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Describe and demonstrate the importance of goal setting and career planning.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities.(S)

2. I can formulate tentative career goals. *(R)*
3. I can evaluate approaches for meeting my goals. *(R)*
4. I can identify my personal goals and values. *(K)*
5. I can identify my personal strengths and weaknesses. *(K)*

Benchmark 2:

Explore and investigate career opportunities.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*

Benchmark 3:

Describe various lifetime roles (e.g., friend, student, leader, worker, family member).

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*
3. I can identify child development theories and their implications for educational and childcare practices. *(K,R)*
4. I can analyze cultural and environmental influences when assessing children's development. *(R)*
5. I can analyze abilities and needs of children and their effects on children's growth and development. *(R)*
6. I can identify appropriate guidelines for positive interactions with children. *(K)*
7. I can identify changes in family roles and family types. *(K)*
8. I can interpret the family life cycle/roles of parents. *(R)*
9. I can define and identify ways parenting skills can be developed. *(K)*
10. I can evaluate factors to consider in determining personal preparedness for parenthood (i.e., biological, social, emotional, financial, and educational). *(R)*
11. I can evaluate the demands and rewards of parenting. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e. financial, time, personal management).

Benchmark 1:

Use basic monetary skills, practice maintaining basic financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(R,S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can apply and stay within a fixed budget. *(S,P)*
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. *(K)*

Benchmark 2:

Follow detailed instruction and complete assignment (e.g., project/time management).

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(R)*
2. I can prioritize resources, equipment and tasks. *(R)*
3. I can reflect upon completion. *(K)*

Benchmark 3:

Recognize time constraints (e.g., personal time).

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Recognize limitations on physical resources.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.**Benchmark 1:**

Serve as a positive role model by following the rules, regulations, and policies of the school community.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Identify personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Recognize characteristics of good citizenship.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Identify methods that can increase a person's self-esteem.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Observe and recognize diversity.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinion. (S,R)

Benchmark 6:

Describe several methods of communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Identify appropriate technical skills required for selected occupation.

Learning Targets (Type):

1. I can use basic file management skills. (K)
2. I can edit a document. (S,K)
3. I can use basic formatting skills. (K,R)
4. I can type a minimum of 10-30 words per minute with 6 or fewer errors on a 1-minute straight-copy timed writing. (S)
5. I can list some jobs that require keyboarding/computer literacy skills. (K)
6. I can use a variety of digital tools to create a product. (S)
7. I can compose a correctly formatted and corrected copy at the keyboard. (S,K)
8. I can list and define computer terminology. (K)
9. I can use appropriate terminology when communicating about current technology. (R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I am a responsible digital citizen. (K,R)
2. I can share data and information ethically and appropriately cite sources. (K,R,S)
3. I can use correct fingers positions when touch typing a document. (K,S)
4. I can consistently apply proper keyboarding techniques. (K)

Benchmark 3:

Identify and use the appropriate tools and equipment for the task.

Learning Targets (Type):

1. I can identify the difference between computer hardware and software. (K)
2. I can use technology in a global learning environment. (K,S,R)
3. I can integrate computer application skills across the curriculum. (K,S,P)
4. I can integrate keyboarding skills across the curriculum. (K,S,R)

Benchmark 4:

Identify and demonstrate appropriate care of technological tools.

Learning Targets (Type):

1. I can leave all settings on my computer in the default mode. (K)
2. I can return all materials (head phones, microphones, cameras, etc.) in the condition that I received them in. (K)

Benchmark 5:

Follow basic technical instruction.

Learning Targets (Type):

1. I can follow instructions from a tutorial. (K)
2. I can follow oral instructions. (K)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Apply academic and technical skills to a class project.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Identify the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Describe how decisions affect self and others.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Keyboarding/Computer Literacy

Grades 6, 7, 8

Length of Course:

Daily; 45 minute periods. One-year minimum (Grades 6-8, cumulative).

Model #1:

Grade 6: 9 weeks

Grade 7: 9 weeks

Grade 8: 18 weeks

Model #2:

Grade 6: 9 weeks

Grade 7: 9 weeks

Grade 8: 9 weeks

Prerequisites:

3 - 4 - 5 Keyboarding

Course Description:

All students must acquire touch-keyboarding skills and have a basic knowledge of computer literacy prior to enrollment in high school. The content of Keyboarding/Computer Literacy is arranged around the five Montana State Vocational Technical Education Standards.

These standards include Technical Skills and Content Knowledge, Career and Life Planning, Skills for Life and Work, and Structure of Organizations and Work. After introduction/review of the keyboard, emphasis is placed on skill building and introduction of formatting (reports, letters, tables, memos, etc.) as well as creating, formatting, saving, editing files on a network, and file management. Internet is available for research and career exploration. This is a lab class—all work is completed on computers used during class.

Topics:

- Review touch-typing skills
- Improve speed and accuracy
- Refine technique (hand and wrist placement, posture)
- Format documents
- Strengthen “soft skills” (follow directions, organize tasks, work as a team member, and make decisions)
- Augment computer literacy skills (hardware, software, file management)
Expand knowledge of computer applications (i.e. word processing, data base spreadsheet, desktop publishing)
- Promote Internet safety, enhance search abilities, and practice proper digital citizenship.
- Investigate Career Opportunities using appropriate technology

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Describe and demonstrate the importance of goal setting and career planning.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Explore and investigate career opportunities.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Describe various lifetime roles (e.g., friend, student, leader, worker, family member).

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K,R)
4. I can analyze cultural and environmental influences when assessing children’s development. (R)
5. I can analyze abilities and needs of children and their effects on children’s growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood (i.e., biological, social, emotional, financial, and educational). (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Use basic monetary skills, practice maintaining basic financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Follow detailed instructions and complete assignment (e.g., project/time management).

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Recognize time constraints (e.g., personal time).

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Recognize limitations on physical resources.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Serve as a positive role model by following the rules, regulations, and policies of the school community.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Identify personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Recognize characteristics of good citizenship.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Identify methods that can increase a person's self-esteem.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Observe and recognize diversity.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Describe several methods of communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Identify appropriate technical skills required for selected occupation.

Learning Targets (Type):

1. I can demonstrate file management skills. (K)
2. I can edit and proofread documents using the tools available (K, S)
3. I can demonstrate correct formatting skills. (K, R)
4. I can proofread and correct errors. (K, S)
5. I can type a minimum of 45 words per minute with 6 or fewer errors on a 3-minute straight-copy timed writing. (S,K)
6. I can identify the importance of how keyboarding/computer literacy skills are used in various career strands and occupations. (K)
7. I can produce documents from straight, script, and rough draft. (K, S)
8. I can use a variety of digital tools to create a product. (S,P)
9. I can compose a correctly formatted and corrected copy at the keyboard. (K, S)
10. I can apply and refine the skills needed to use communication, information and processing technologies. (K, P)
11. I can list and define computer terminology. (K)
12. I can use appropriate terminology when communication about current technology. (R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I am a responsible digital citizen. (K, R)
2. I can analyze and ethically use data and information from digital resources. (K, R)
3. I can share data and information ethically and appropriately cite sources. (K,R,S)
4. I can use digital collaboration and communication tools in a safe, legal, and responsible manner. (K, R)
5. I can consistently apply proper keyboarding techniques. (K)

6. I can use correct fingers positions when touch typing a document. (K, S)

Benchmark 3:

Identify and use the appropriate tools and equipment for the task.

Learning Targets (Type):

1. I can identify the difference between computer hardware and software. (K)
2. I can identify the difference between databases and spreadsheets. (K)
3. I can obtain data to improve my project. (K)
4. I can use a variety of technology (spread sheets) to investigate aspects of algebraic functions. (K,S,R)
5. I can use technology in a global learning environment. (K S,R)
6. I can integrate computer application skills across the curriculum. (K, S, P)
7. I can integrate keyboarding skills across the curriculum. (K, S, R)

Benchmark 4:

Identify and demonstrate appropriate care of technological tools.

Learning Targets (Type):

1. I can leave all setting on my computer in the default mode.(K)
2. I can return all materials (head phones, microphones, cameras, etc..) in the condition that I received them in. (K)

Benchmark 5:

Follow basic technical instruction.

Learning Targets (Type):

1. I can follow written instructions from a manual. (K)
2. I can follow instructions from a tutorial. (K)
3. I can follow oral instructions. (K)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Apply academic and technical skills to a class project.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Identify the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Describe how decisions affect self and others.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

**KEYBOARDING /COMPUTER LITERACY
GRADE LEVEL SCOPE AND SEQUENCE
GRADE LEVELS
4, 5, 6, 7, 8**

I = Introduce, D = Develop, M = Master, R = Reinforce, and O = Optional.

		GRADE LEVELS				
		4	5	6	7	8
1. <u>BASIC KEYBOARD OPERATION</u>						
1.1	Alphabetic Keys					
	1.11 Keyboard presentation	I	I/D	I/D	D/M	M/R
	1.12 Typing by touch	I	I/D	I/D	D/M	M/R
	1.13 Correct fingering	I	I/D	I/D	D/M	M/R
1.2	Function Keys (return, space bar, shift keys, arrow keys, etc.)					
		I	I/D	I/D	D/M	M/R
1.3	Numeric Keys					
	1.31 Keyboard presentation	O	O	I	D/M	M/R
	1.32 Correct fingering	O	O	I	I/D	D
	1.33 Spacing for figures	O	O	O	I	I/D
1.4	Symbol Keys					
	1.41 Keyboard presentation	O	O	O	I	I/D
	1.42 Spacing for punctuation	I	I	I/D	D/M	M/R
	1.43 Names of symbols	O	O	O	I	I/D
	1.44 Correct fingering	O	O	O	I	I/D
2. <u>TECHNIQUES</u>						
2.1	Body Position (Ergonomics)					
	2.11 Posture	I	D	D	M	M/R
	2.12 Fingers curved	I	D	D	M	M/R
	2.13 Hands above frame of keyboard	I	D	D	M/R	M/R
	2.14 Hand away from front edge of keyboard	I	D	D	M/R	M/R
	2.15 Keyboard at edge of table	I	D	D	M/R	M/R
	2.16 Elbows at sides of body, parallel to floor	I	D	D	M/R	M/R
2.2	Eyes on Copy	I	D	D	M/R	M/R
2.3	Keystroking					
	2.31 Minimum movement of hands and arms	I	D	R	R	R/M
	2.32 Proper reaches	I	D	R	R	R/M
	2.33 Letter response	I	D	R	R	R/M
	2.34 Word response	O	I	D	R	R/M
	2.35 Phrase response	O	O	I	D	D/M

2.4	Speed Building/Accuracy	I	I	I/D	D	D
3. <u>SKILL DEVELOPMENT</u>						
3.1	Straight Copy	I	D	D	D	M/R
3.2	Script Copy	I	D	D	D	M/R
3.3	Rough Draft Copy	I	D	D	D	M/R
3.4	Composing at Keyboard	I	I	I	D	M/R
3.5	Basic Writing Mechanics	I	D	D	D	M/R
4. <u>DOCUMENT PRODUCTION</u>						
4.1	Basic Report Formatting	O	I	D	M	M/R
4.2	Advanced Report Formatting					
	4.21 Title page, endnotes, etc.	O	O	I	I	I
	4.22 Graphics	O	O	I	I	I
4.3	Letters					
	4.31 Personal business letters			I	D	M
	4.32 Business letters				I	D
	4.33 Envelopes				I	I
4.4	Outlines				O	O
4.5	Tables, Poems, Etc.					
	4.51 Vertical centering		I	D	D	M
	4.52 Horizontal centering			D	D	D
5. <u>FILE MANAGEMENT</u>						
5.1	Create and Retrieve	I	D	M	M/R	M/R
5.2	Edit and Save					
	(Multiple Drives)	I	D	M	M/R	M/R
5.3	Print	O	I	D	M/R	M/R
6. <u>WORD PROCESSING</u>						
6.1	Proofreading	I	I	D	D	M/R
	6.11 Editing (manual)	I	I	I	D	M/R
	6.22 Spell checking	O	I	I	D	M/R
	6.23 Thesaurus	O	O	I	D	M/R
	6.24 Grammar checking	O	O	I	D	M/R
6.2	Advanced Editing					
	6.31 Search/replace	O	I	D	R	M/R
	6.32 Cut/paste	O	I	D	R	M/R
	6.33 Copy/move	O	I	D	R	M/R
	6.34 Character styles/fonts	O	I	D	R	M/R
	6.35 Graphics	O	O	I	R	M/R
6.3	Formatting Using Word Processing					
	6.31 Character formatting	O	O	O	I	R
	6.32 Line formatting	O	O	I	D	R
	6.33 Paragraph formatting	O	O	I	D	R
	6.34 Page formatting	O	O	I	D	R

7. PERSONAL COMPUTER OPERATION/LITERACY

7.1	Terminology	I	I	I	I/D	I/D
7.2	Hardware					
7.21	Basic computer components	I	I/D	I/D	D/M	M/R
7.22	Computer/printer selection	I	I	I	D/M	M/R
7.3	Software					
7.31	Word processing software	I	I	I	D/M	M/R
7.32	Application software	O	O	I/O	I	I/D
7.33	Keyboarding tutorials	O	O	O	O	O
8.4	Technological Communications					
8.41	Multimedia	I	I	I	I	D
8.42	Interactive Telecommunications	I/O	I/O	I/O	I/O	I/O
8.43	Media Literacy	I	D	D	D	D
8.44	Netiquette	I	D	D	D	D
8.45	Search Techniques	I	D	D	D	D
8.46	Internet Safety	I	D	D	D	D
7.5	Curriculum Integration					
7.51	Interdisciplinary units	I	I	I	I/D	I/D
7.52	Core area enhancement	I	I/D	I/D	D/	D
7.53	Interactive/cooperative learning experiences	I	I/D	I/D	D	D

8. COMPUTER APPLICATIONS

8.1	Introduction to Databases				O	O
8.2	Introduction to Spreadsheets				O	O
8.3	Integration of WP/DB/SS				O	O
8.4	Intro. to Desktop Publishing	O	O	O	O	O
8.5	Intro. to Internet	O	O	O	O	O

9. ETHICAL USE OF TECHNOLOGY

9.1	Ethical Use					
9.11	Care of Equipment	I	D	M	M/R	M/R
9.12	Ethical use of software	I	D	D	M/R	M/R
9.2	Ethical Use of Information	I	D	D	D	D

Accounting 1

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: None

Course Description:

Accounting is the language of business and an integral aspect of all business activities. Mastery of fundamental accounting concepts, skills, and competencies is essential to making informed business decisions. Regardless of students' chosen course of study or career path, accounting prepares them to be educated business professionals and informed consumers.

This course develops knowledge of the basic principles of the accounting cycle. Emphasis is placed on analyzing, recording and interpreting business transaction: financial statements, manual and computerized accounting systems, banking and payroll; understanding basic types of business ownership; and exploring accounting careers. Comprehension is reinforced with use of both manual and automated simulations.

Topics:

Unit 1: Accounting for a Service/merchandising Business Organized as a Proprietorship

- The Accounting Equation
- Reporting Financial Information on a Balance Sheet
- Changes that Affect Owner's Equity
- Analyzing Transactions into Debit and Credit Parts
- Journalizing Transactions
- Posting to a General Ledger
- Cash Control Systems: Checking Account, Petty Cash, and Electronic Transfers
- Checking Account Reconciliation
- Work Sheet for a Service/merchandising Business
- Recording Adjusting and Closing Entries
- Financial Statements for a Proprietorship

Unit 2: Accounting for a Merchandising Business Organized as Partnership

- Using Special Journals
- Journalizing Sales and Cash Receipts
- Journalizing Purchases and Cash Payments
- Journalizing General
- Posting to General and Subsidiary Ledgers
- Accounts Receivable/Accounts Payable Schedules
- Work Sheet for a Merchandising Business
- Recording Adjusting and Closing Entries

- Distribution of Income to Partners
- Financial Statements for a Partnership

Unit 3: Accounting for a Merchandising Business Organized as Corporation

- Uncollectible Accounts Receivable
- Depreciation Plant Assets
- Analyzing Inventory Changes
- Preparing a Work Sheet
- Distributing Dividends
- Stockholders' Equity Statement
- Corporation Financial Statements

Unit 4: Payroll Accounting

- Preparing Payroll Records
- Payroll Taxes and Reports
- Individual Wage Reports

NOTE: Throughout this document, learning target types are identified as knowledge ("K"), reasoning ("R"), skill ("S"), or product ("P").

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K, R)

4. I can analyze cultural and environmental influences when assessing children's development. (R)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)

2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can define accounting terms related to starting a service/merchandising business organized as a sole proprietorship, partnership, and corporation. (K,R,S)
2. I can classify changes that affect the accounting equation. (K,R,S)
3. I can identify accounting concepts and practices related to starting a sole proprietorship, partnership, and corporation. (K,R,S)
4. I can analyze how transactions affect accounts in an accounting equation. (K,R,S)
5. I can define accounting terms related to analyzing transactions into debit and credit parts. (K,R,S)
6. I can identify accounting practices related to analyzing transactions into debit and credit

- parts. *(K,R,S)*
7. I can analyze how transactions affect owner's equity accounts. *(K,R,S)*
 8. I can define accounting terms related to journalizing transactions. *(K,R,S)*
 9. I can identify accounting concepts and practices related to journalizing transactions.*(K,R,S)*
 10. I can record transactions to set up a business in a five-column journal.*(K,R,S)*
 11. I can prove and rule a five-column journal.*(K,R,S)*
 12. I can total, prove, and rule a journal page and carry forward the totals to a new journal page.*(K,R,S)*
 13. I can prove the accuracy of cash flow through the equality of cash debits and credits in order to prove cash.*(K,R,S)*
 14. I can define accounting terms related to posting from a journal to a general ledger.*(K,R,S)*
 15. I can identify accounting concepts and practices related to posting from a journal to a general ledger.*(K,R,S)*
 16. I can prepare a chart of accounts for a service/merchandising/merchandising business organized as a proprietorship, partnership, and corporation.*(K,R,S)*
 17. I can define accounting terms related to posting to ledgers.*(K,R,S)*
 18. I can identify accounting practices related to posting to ledgers.*(K,R,S)*
 19. I can post separate amounts from a journal to a general ledger*(K,R,S)*
 20. I can analyze and journalize correcting entries.*(K,R,S)*
 21. I can define accounting terms related to using a checking account.*(K,R,S)*
 22. I can identify accounting concepts and practices related to using a checking account.*(K,R,S)*
 23. I can prepare business papers related to using a checking account.*(K,R,S)*
 24. I can reconcile a bank statement.*(K,R,S)*
 25. I can journalize dishonored checks and electronic banking transactions.*(K,R,S)*
 26. I can define accounting terms related to using a petty cash fund.*(K,R,S)*
 27. I can establish and replenish a petty cash fund.*(K,R,S)*
 28. I can define accounting terms related to a work sheet for a sole proprietorship, partnership, and corporation.*(K,R,S)*
 29. I can identify accounting concepts and practices related to a work sheet for a service/merchandising business organized as a sole proprietorship, partnership, and corporation.*(K,R,S)*
 30. I can prepare a heading and a trial balance on a work sheet.*(K,R,S)*
 31. I can plan adjustments for supplies and prepaid insurance.*(K,R,S)*
 32. I can complete a work sheet for a sole proprietorship, partnership, and corporation.*(K,R,S)*
 33. I can identify selected procedures for finding and correcting errors in accounting records.*(K,R,S)*
 34. I can define accounting terms related to financial statements for a sole proprietorship, partnership, and corporation.*(K,R,S)*
 35. I can identify accounting concepts and practices related to preparation of an income statement for a sole proprietorship, partnership, and corporation.*(K,R,S)*
 36. I can prepare an income statement for a sole proprietorship, partnership, and

- corporation, and analyze an income statement using component percentages.(K,R,S)
37. I can prepare a balance sheet for a sole proprietorship.(K,R,S)
 38. I can define accounting terms related to adjusting entries for a sole proprietorship, partnership, and corporation.(K,R,S)
 39. I can identify accounting concepts and practices related to adjusting entries for a sole proprietorship, partnership, and corporation.(K,R,S)
 40. I can record adjusting entries for a sole proprietorship, partnership, and corporation.(K,R,S)
 41. I can define accounting terms related to closing entries for a sole proprietorship, partnership, and corporation.(K,R,S)
 42. I can identify accounting concepts and practices related to closing entries for a sole proprietorship, partnership, and corporation.(K,R,S)
 43. I can record closing entries for a sole proprietorship, partnership, and corporation.(K,R,S)
 44. I can define accounting terms related to adjusting and closing entries for a sole proprietorship, partnership, and corporation.(K,R,S)
 45. I can identify accounting concepts and practices related to adjusting and closing entries for a sole proprietorship, partnership, and corporation.(K,R,S)
 46. I can record a post-closing trial balance for a service/merchandising business organized as a sole proprietorship, partnership, and corporation.(K,R,S)
 47. I can use T accounts to analyze transactions showing which accounts are debited or credited for each transaction.(K,R,S)
 48. I can define accounting terms related to purchases for a merchandising business.(K,R,S)
 50. I can identify accounting concepts and practices related to purchases for a merchandising business.(K,R,S)
 51. I can journalize purchases of merchandise using a purchases journal.(K,R,S)
 52. I can define accounting terms related to cash payments for a merchandising business.(K,R,S)
 53. I can identify accounting concepts and practices related to cash payments for a merchandising business.(K,R,S)
 54. I can journalize cash payments and cash discounts using a cash payments journal.(K,R,S)
 55. I define accounting terms related to purchases returns and allowances for a merchandising business.(K,R,S)
 56. I can identify accounting concepts and practices related to purchases returns and allowances for a merchandising business.(K,R,S)
 57. I can journalize purchases returns and allowances and other transactions using a general journal.(K,R,S)
 58. I can define accounting terms related to sales for a merchandising business.(K,R,S)
 59. I can identify accounting concepts and practices related to sales for a merchandising business.(K,R,S)
 60. I can journalize sales on account using a sales journal.(K,R,S)
 61. I can define accounting terms related to cash receipts for a merchandising business.(K,R,S)
 62. I can identify accounting concepts and practices related to cash receipts for a

merchandising business.(K,R,S)

63. I can journalize cash receipts using a cash receipts journal.(K,R,S)
64. I can identify accounting terms related to sales and cash receipts for a merchandising business.(K,R,S)
65. I can identify accounting concepts and practices related to sales and cash receipts for a merchandising business.(K,R,S)
66. I can record sales returns and allowances using a general journal.(K,R,S)
67. I can post separate items from a purchases, cash payments, and general journal to an accounts payable ledger.(K,R,S)
68. I can post separate items from a sales, cash receipts, and general journal to an accounts receivable ledger.(K,R,S)
69. I can post separate items from a cash payments journal and a general journal to a general ledger.(K,R,S)
70. I can define accounting terms related to payroll records.(K,R,S)
71. I can identify accounting practices related to payroll records.(K,R,S)
72. I can complete a payroll time card.(K,R,S)
73. I can calculate payroll taxes.(K,R,S)
74. I can complete a payroll register and an employee earnings record.(K,R,S)
75. I can prepare payroll checks.(K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can apply GAAP (generally accepted accounting practices) as standard and proper procedure in using Computerized Accounting. (K,R,S)
2. I can understand and follow listed directions (wall chart) to keep students and equipment safe. (K,R,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use best practices equipment, programs, and procedures for specific tasks. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. (K,R,S)
2. I can understand and follow appropriate trouble shooting steps. (K,R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use sources such as batching sheets, and accounting source documents to apply technical information. (K,R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Accounting 2

Grades 11-12

Units of Credit: One Year (Elective)

Prerequisites: Successful completion of Accounting 1 with a grade of “C” or better.

Course Description:

This course continues the development of the basic accounting concepts to perform advanced accounting procedures. Emphasis is placed on corporate, managerial, and cost accounting. Departmentalized accounting is used in all applications. Further understanding of basic types of business ownership and exploring additional and expanded accounting careers are an integral component of this course. This extended comprehension is reinforced with use of both manual and automated simulations.

Topics:

Unit 1

- Professional Accounting Careers
- Departmentalized
- Purchases and Cash Payments
- Sales and Cash Receipts
- Payroll Data
- Financial Reporting
- Simulation
- Control Systems
- Voucher System
- Inventory-Planning and Valuation

Unit 2

- Uncollectible Accounts
- Plant Assets
- Notes Payable, Prepaid Expenses and Accrued Expenses
- Note Receivable, Unearned Revenue and Accrued Revenue
- Corporate Accounting
- Organizing a Corporation
- Paying Dividends
- Acquiring Additional Capital
- Financial Analysis and Reporting Simulation

Unit 3

- Management Accounting
- Budgetary Planning and Control
- Management Decisions
- Financial Statement Analysis
- Cost Accounting
- Merchandising Business
- Manufacturing Business
- Transactions and Financial Reporting

Unit 4

- Simulation
- Other Accounting Systems
- Structure of a Partnership
- Financial Reporting of a Partnership
- Budget and Accounting: Not-for-Profit
- Financial Reporting: Not-for Profit
- Applications of Currently-Used Accounting Software

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K,R)
4. I can analyze cultural and environmental influences when assessing children’s development. (R)
5. I can analyze abilities and needs of children and their effects on children’s growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood (i.e., biological, social, emotional, financial, and educational). (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3: Apply appropriate time to task.

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K,R)
2. I can maintain the tools of the trade. (K)
3. I can maximize the use of my resources. (K,R)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S,R)
2. I can demonstrate communication skills that contribute to positive relationships. (S,R)
3. I can work to understand diverse points of view. (K,R,S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can identify accounting concepts and practices related to uncollectible accounts. (S,R)
2. I can calculate, journalize, and post estimated uncollectible accounts expense. (S,R)
3. I can define accounting terms related to uncollectible accounts. (S,R)
4. I can journalize and post entries related to writing off and collecting uncollectible accounts receivable. (S,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can apply GAAP (Generally Accepted Accounting Practices) as standard and proper procedure in using computerized Accounting. (K,R,S)
2. I can follow listed directions (wall chart) to keep students and equipment safe. (K,R,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use best practices equipment, programs, and procedures for specific tasks. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. (K,R,S,P)
2. I can understand and follow appropriate trouble shooting steps. (K,R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use sources such as batching sheets, and accounting source documents to apply technical information. (K,R,S,P)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*S*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*S*)
3. I can present my unique project to an authentic audience. (*S*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S*)

Business Co-Op

Grades 11 - 12

Units of Credit: One Semester or One Year (Elective)

Prerequisites: Enrollment in any Business Course and Consent of Instructor

Course Overview:

Business Co-op is for students who are enrolled in a Business class and who are employed in a business-related job at least 5 hours per week. The experience gained on the job is supplemented by the classroom instruction received in the business class. Students are required to report their weekly hours and earnings, and are evaluated by their employer each grading period. Business Co-op is a program which requires the cooperation of the student, parent, employer, and the Business Co-op instructor. Business Co-op does not meet as a class on a regular basis. The job becomes the class for which credit is earned. Instructional strategies and assessments are varied.

Topics:

Each job is an individual work station and possesses its own job description.

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. *(S,R)*
2. I can formulate tentative career goals. *(R)*
3. I can evaluate approaches for meeting my goals. *(R)*
4. I can identify my personal goals and values. *(K)*
5. I can identify my personal strengths and weaknesses. *(K)*

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*
3. I can identify child development theories and their implications for educational and childcare

- practices. (K, R)
4. I can analyze cultural and environmental influences when assessing children's development. (R)
 5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
 6. I can identify appropriate guidelines for positive interactions with children. (K)
 7. I can identify changes in family roles and family types. (K)
 8. I can interpret the family life cycle/roles of parents. (R)
 9. I can define and identify ways parenting skills can be developed. (K)
 10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (R)
 11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can perform the technical skills and procedures during my work experience. (S)
2. I can practice positive service skills. (S)
3. I can develop the communication skills needed to perform my duties both at work and in the classroom. (R,S)
4. I can attend work and class in a timely manner. (K,R,S)
5. I can work effectively as part of a team. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can safely use the technology as defined by my employer and instructor. (S)
2. I can follow instructions both on the job and at school to keep students and co-workers safe. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can effectively analyze various tools and equipment to select the appropriate tools to use at work and in class. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can appropriately operate technological tools required by my employer and instructor. (S)
2. I can recognize and communicate troubleshooting protocol to both my employer and instructor, as needed. (K,R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can apply the information that I learn at school to my work experience. (K,R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Business Essentials

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Business Essentials introduces students to the world of business and helps prepare them for the economic roles of consumer, worker, and citizen in an ever changing world through effective oral and written communication, agility and adaptability, collaboration and leading by influence. This course serves as background for accessing and analyzing information about business courses students may take in high school and in higher education. Business Essentials will promote curiosity and imagination, assisting students with consumer decision making, prepare them for future employment, and help them effectively perform their responsibilities as a citizen.

Topics:

- **Career Exploration (2 week unit)**
 - ☐ Applying for jobs
 - ☐ Resume - Letter of application - Interviewing - Thank you letter – follow up telephone call
 - ☐ MTCIS – topics – portfolio
 - ☐ Future casting (2 year, 4 year, apprenticeship)
 - ☐ Online portfolio - living document (for future use)
- **Finance (personal in relation to business; then expand)**
 - ☐ Cash flow (?)--money coming in and money going out of one's own money
 - ☐ Needs vs. wants
 - ☐ Banking/financing options in regards to one's own money (*more in-depth in Personal Money Management*))
 - ☐ Importance of saving and investing (*more in-depth in Personal Money Management*))
 - ☐ Debt structure--loans/credit cards (*more in-depth in Personal Money Management*)
 - ☐ Business math
 - ☐ Business law
- **Introduction to Marketing Structure**
 - ☐ 4 P's: Place, Price, Promotion, Product
 - ☐ Business types/structure
 - ☐ Introduction to entrepreneurship (eliminate-part of business types and structure)
 - ☐ E-commerce
 - ☐ Commercial art/promotion (Part of the 4P's of marketing)--eliminate
 - ☐ Consumer Economics (supply and demand)
 - ☐ Sales
 - ☐ Customer service
- **Technology (woven throughout)**
 - ☐ Navigation of networks
 - ☐ File management (*more in-depth in middle school Keyboarding/Computer Literacy*)

- ❑ Using technology to explore business concepts
- ❑ Speed and accuracy (*more in-depth in middle school Keyboarding/Computer Literacy*)
- ❑ Ethics and Online Safety
- ❑ File management (*also addressed in middle school Keyboarding/Computer Literacy*)
- ❑ Using technology to explore business concepts
- ❑ Speed and accuracy (*also addressed in middle school Keyboarding/Computer Literacy*)

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K, R)
4. I can analyze cultural and environmental influences when assessing children’s development. (R)
5. I can analyze abilities and needs of children and their effects on children’s growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood:

(i.e., biological, social, emotional, financial, and educational.) (*R*)

11. I can evaluate the demands and rewards of parenting. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can apply and stay within a fixed budget. (*S*)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (*K*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*S*)
2. I can prioritize resources, equipment and tasks. (*S*)
3. I can reflect upon completion. (*S*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)
4. I can investigate the costs of birth defects to family and society. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*S*)
2. I can apply leadership styles in group activities and projects. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*S*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can compose personal and business documents properly for job opportunities. (S, P)
2. I can research and use MTCIS for career development. (K, R)
3. I can use multiple sources to research opportunities and future careers. (S, K)
4. I can create, use, and evaluate a document to be applicable for today and the future. (P,S,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can explain what cash flow is and how it impacts one's finances and budget. (K,R)
2. I can determine the difference between wants and needs as they relate to my financial capabilities. (K,R)
3. I can describe banking/financing options in regards to one's own money. (K R)
4. I can determine what methods of saving and investing are realistic based on one's financial means. (K,R)
5. I can extrapolate how debt is incurred and how to avoid acquiring it. (K,R)
6. I can use basic math computations and principles to formulate financial information and reports. (K,R)
7. I can comprehend the legal necessity for finances to be accurately recorded, maintained, and report. (K,R)
8. I can comprehend the legal ramifications of inaccurate finances. (K,R)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can compare the different types of market structures and the effect they have on the price and the quality of the goods and services. (S)
2. I can recognize the various types of business and interpret their functions. (S)
3. I can identify the importance of E-Commerce and its relevance to the success of marketing. (S)
4. I can analyze the importance of supply and demand to both the consumer and business. (S)
5. I can evaluate the relevance of sales and the success or failure of a business. (S)
6. I can recognize the relevance of good customer service to the success of a business and explain the various means of satisfying the customer. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can manage, explain, and organize technological tools, (K,R)
2. I can recognize and follow appropriate troubleshooting techniques and protocol. (K,S)
3. I can demonstrate and use various technological tools in a variety of situations. (R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use technological tools and apply them to real life situations. (K,R)
2. I can develop and present technical information to a variety of sources. (K,R,S,P)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Business

Independent Study/Work Experience

Grades 11 & 12

Units of Credit: One Semester (Elective)

Prerequisites: Consent of Instructor and 2-3 Business & Marketing courses in logical sequence

Course Description:

Rapid advances in technology, business, health, science, trades, and industry have created new career opportunities and demands. Career and Technical Education courses provide the knowledge, skills, and technologies required for employment in several broad systems. Students need to develop knowledge of the concepts and skills related to individual career concentrations in order to apply them to personal/career development. Career and Technical Education depends on and supports the integration of academic, career, and technology knowledge and skills. To prepare students for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepares students for success.

In collaboration with the teacher and a related professional mentor, students will develop a school and/or workplace-based learning activity that provides an in-depth study of at least one aspect of a selected business or industry.

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can perform roles related to my chosen field during my work experience. (S)
2. I can practice positive service skills. (S)
3. I can demonstrate advanced skills related to my study through creation of a project. (S,P)
4. I can manage the time and resources I need to complete my project. (K,S)
5. I can analyze how this project related to my future plans. (R)
6. I can incorporate communication, math, and science knowledge and skills into my project. (S,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate safe use of technology during my work experience/independent study, as defined by my mentor. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can present my project or independent study results using appropriate tools. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can follow directions given by my mentor to appropriately utilize tools associated with my study. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can explain how my school courses relate to my independent study/work experience. (K,R)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic produce within budget constraints. (S,R,P)

Career Explorations

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: Consent of Counselor

Course Description:

This course engages students in an interactive, technology rich learning process, helping them develop the knowledge, skills, and attitudes needed to successfully: examine their own lives, explore their own lives, explore and evaluate a wide range of education and career options, and make reasoned and researched goals for their future. This course is relevant, rigorous and relationship-rich. It allows time for students to be successful in other classes and culminates with students developing an individualized, online, 10-year plan that motivates them to envision a self-sufficient, productive life beyond high school, college or post-secondary training.

Topics:

- Who am I?
- What do I want?
- How do I get it?

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career

- and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)
 3. I can identify child development theories and their implications for educational and childcare practices. (*K, R*)
 4. I can analyze cultural and environmental influences when assessing children's development. (*R*)
 5. I can analyze abilities and needs of children and their effects on children's growth and development. (*R*)
 6. I can identify appropriate guidelines for positive interactions with children. (*K*)
 7. I can identify changes in family roles and family types. (*K*)
 8. I can interpret the family life cycle/roles of parents. (*R*)
 9. I can define and identify ways parenting skills can be developed. (*K*)
 10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (*R*)
 11. I can evaluate the demands and rewards of parenting. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can apply and stay within a fixed budget. (*S*)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (*K*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*S*)
2. I can prioritize resources, equipment and tasks. (*S*)
3. I can reflect upon completion. (*S*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)
4. I can investigate the costs of birth defects to family and society. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can project into the future and understand the consequences of today's choices and actions. (K,R)
2. I can understand how to match academic and employment effort to lifestyle expectations.

(K,R,S)

3. I can practice communication, interpersonal and self-management skills necessary to succeed in today's educational and workforce setting. (S)
4. I can identify and plan for the challenges and stumbling blocks that are inevitable in today's fast pace, competitive world. (K,R,S)
5. I can envision a self-sufficient, productive life beyond high school, college, and/or post-secondary training. (K,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate that I am a responsible digital citizen. (K,R)
2. I can analyze and ethically use data and information from digital resources. (K,R)
3. I can share data and information ethically and appropriate city sources. (K,R,S)
4. I can use digital collaboration and communication tools in a safe, legal, and responsible manner. (K,R)
5. I can identify dangerous situations and keep myself safe in online environments. (K,R)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can become proactive, rather than reactive, in managing the change situations in my life. (R,S)
2. I can become identity choices I make for myself now and in the future through contemplation and self-discovery to achieve a goal. (K,R)
3. I can explain and practice appropriate procedures for completing complex taxes relating to digital environments. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can recognize and follow appropriate troubleshooting techniques and protocol. (K,R)
2. I can demonstrate and use various technological tools in a variety of situations. (R,S)
3. I can return all materials (head phones, microphones, cameras, etc.) in the condition that I received them. (K)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can analyze quantitatively, what economic self-sufficiency equals for me. (K,R,S)
2. I can follow written and oral instructions. (K,R)
3. I can use technical tools and apply them to real life situations. (K,R)
4. I can develop and present technical information to a variety of sources. (K,R,S,P)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Digital Film 1

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: Recommended: 30 wpm and Graphic Design 1

Course Description:

Students enrolled in Digital Film 1 create a variety of digital video projects using Premiere Pro. They investigate concepts such as basic story construction, storyboarding, composition, lighting, and sound. This course will touch on basic film history and film theory, reinforcing these concepts through the analysis of movies and movie clips. Students will maintain a digital portfolio of their work.

Topics:

- Ethics/Online Safety - My Digital Responsibility
- Copyright Considerations
 - Creative Commons
- Basic Film Theory/History
 - Analysis of films
- Equipment
- Storyboarding
- Lighting
 - Three Point Lighting
- Sound
- Composition
- Pacing
- Timing

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (*S,R*)
2. I can formulate tentative career goals. (*R*)
3. I can evaluate approaches for meeting my goals. (*R*)
4. I can identify my personal goals and values. (*K*)
5. I can identify my personal strengths and weaknesses. (*K*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K, R)
4. I can analyze cultural and environmental influences when assessing children's development. (R)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply knowledge of hardware and software appropriately to accomplish tasks. *(K,R)*
2. I can demonstrate the ability to efficiently navigate the network and operating system. *(K,R)*
3. I can demonstrate the ability to manage files and navigate the network. *(K,R,S)*
4. I can compose organize, and edit information using a computer. *(K,R,S)*
5. I can create, modify, store, retrieve, scan and print files. *(K,R)*
6. I can proofread and edit files for accuracy, content, appearance and/or creativity, and for correct grammar, spelling, and punctuation. *(K,R)*

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify the appropriate resource needed to accomplish my goals. *(K,R)*
2. I can select and utilize the appropriate equipment to complete a task. *(K,R)*
3. I can identify dangerous situations and keep myself safe in online environments. *(K,R)*
4. I can comply with copyright laws regarding the use of technology including citing references appropriately. *(K,R,P)*
5. I can create a video that does not infringe on the intellectual property rights of others by utilizing my own resources or ensuring that the resources obtained are available for use in my project. *(K,R,S,P)*

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify and apply principles and techniques of digital video production. *(K,R,S)*
2. I can use resources including the Internet efficiently and effectively for research and electronic communications. *(K,R)*
3. I can analyze current films utilizing my knowledge of the film techniques. *(K,R,S)*
4. I can analyze the impact of films on society. *(K,R)*
5. I can demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and Intranet. *(K,R)*

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use and enhance an established repertoire of skills and procedures as needed to operate various technologies. *(K,R)*
2. I can demonstrate competence with basic system and tool set-up, technical terminology, basic care and maintenance. *(K,R)*
3. I can use and refine troubleshooting strategies to resolve technical operations problems. *(K,R,S)*
4. I can apply sophisticated skills and strategies to enhance performance and ease task completions. *(K,R,S)*
5. I can integrate technology in designing, developing, presenting and managing projects. analyze and evaluate a variety of technologies and match the best technology to a task.

(K,R,S,P)

6. I can create a portfolio of original work using various technologies. (K,R,S,P)
7. I can apply and evaluate personal understanding to develop an innovative solution to an authentic problem. (K,R,S,P)
8. I can transfer academic and technical skills to the level of industry standards. (K,R,S,P)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (K,R,S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (K,R)
3. I can capture video into digital editing software. (K,R,S,P)
4. I can import a variety of file types into digital editing software. (K,R,S,P)
5. I can construct a cohesive story using digital editing software to convey an idea. (K,R,S,P)
6. I can select effective compositions to increase the visual impact of my movies. (K,R)
7. I can manipulate lighting to increase the dramatic affect of my work. (K,R,S,P)
8. I can alter the pacing and timing to increase suspense or enhance tension. (K,R,S,P)
9. I can manipulate sound to add mood. (K,R,S,P)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Digital Film 2

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: Digital Film 1

Course Description:

Students in Digital Film 2 create a variety of digital video projects using Premiere Pro, Sound Booth, and After Effects. Students will investigate concepts such as advanced story construction, storyboarding, composition, lighting, sound and message. This course will touch on basic film history and film theory, reinforcing these concepts through the analysis of movies and movie clips. Students will maintain a digital portfolio of their work.

Topics:

- Ethics/Online Safety - My Digital Responsibility
- Copyright Considerations
 - Creative Commons
- Filming Multiple Spatial Timelines
 - Flashback
 - Warp
- Movement
 - Chase/Pursuit Sequences
 - Trucking/Panning/Dolly
- Message
 - Audience
- Lighting
- Sound
 - Sound Booth Integration
- Composition
- Special Effects
 - Photoshop Integration
 - After Effects Integration

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)

2. I can formulate tentative career goals. (*R*)
3. I can evaluate approaches for meeting my goals. (*R*)
4. I can identify my personal goals and values. (*K*)
5. I can identify my personal strengths and weaknesses. (*K*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)
3. I can identify child development theories and their implications for educational and childcare practices. (*K, R*)
4. I can analyze cultural and environmental influences when assessing children's development. (*R*)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (*R*)
6. I can identify appropriate guidelines for positive interactions with children. (*K*)
7. I can identify changes in family roles and family types. (*K*)
8. I can interpret the family life cycle/roles of parents. (*R*)
9. I can define and identify ways parenting skills can be developed. (*K*)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (*R*)
11. I can evaluate the demands and rewards of parenting. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can apply and stay within a fixed budget. (*S*)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (*K*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*S*)
2. I can prioritize resources, equipment and tasks. (*S*)
3. I can reflect upon completion. (*S*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.**Benchmark 1:**

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)

2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply knowledge of hardware and software appropriately to accomplish tasks. (K,R)
2. I can demonstrate the ability to efficiently navigate the network and operating system. (K,R)
3. I can demonstrate the ability to manage files and navigate the network. (K,R,S)
4. I can compose organize, and edit information using a computer. (K,R,S)
5. I can create, modify, store, retrieve, scan and print files. (K,R)
6. I can proofread and edit files for accuracy, content, appearance and/or creativity, and for correct grammar, spelling, and punctuation. (K,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify the appropriate resource needed to accomplish my goals. (K,R)
2. I can select and utilize the appropriate equipment to complete a task. (K,R)
3. I can identify dangerous situations and keep myself safe in online environments. (K,R)
4. I can comply with copyright laws regarding the use of technology including citing references appropriately. (K,R,P)
5. I can create a video that does not infringe on the intellectual property rights of others by utilizing my own resources or ensuring that the resources obtained are available for use in my project. (K,R,S,P)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify and apply principles and techniques of digital video production. (K,R,S)
2. I can use resources including the Internet efficiently and effectively for research and electronic communications. (K,R)
3. I can analyze current films utilizing my knowledge of the film techniques. (K,R,S)
4. I can analyze the impact of films on society. (K,R)
5. I can demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and Intranet. (K,R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use and enhance an established repertoire of skills and procedures as needed to operate various technologies. (K,R)
2. I can demonstrate competence with basic system and tool set-up, technical terminology, basic care and maintenance. (K,R)
3. I can use and refine troubleshooting strategies to resolve technical operations problems.

(K,R)

4. I can apply sophisticated skills and strategies to enhance performance and ease task completions. (K,R,S)
5. I can integrate technology in designing, developing, presenting and managing projects. analyze and evaluate a variety of technologies and match the best technology to a task. (K,R,S,P)
6. I can create a portfolio of original work using various technologies. (K,R,S,P)
7. I can apply and evaluate personal understanding to develop an innovative solution to an authentic problem. (K,R,S,P)
8. I can transfer academic and technical skills to the level of industry standards. (K,R,S,P)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (K,R,S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings in workplace settings. (K,R)
3. I can operate the technical equipment necessary to make a digital video. (K,R,S,P)
4. I can manipulate the tools in various digital editing programs to produce a video product. (K,R,S,P)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Digital Media

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Digital Media students will be introduced to a variety of digital media and tools. They will explore various ways to communicate through digital media. This course will give students the opportunity to sharpen their media skills and learn how to communicate effectively through print, radio, video, and web technologies. Students will work individually and in groups to create media projects. Consideration will be given to writing, producing, and critiquing each media assignment.

Topics:

- Ethics/Online Safety – My Digital Responsibility
- Productivity – How I interact With and How Media Influences My Life/
 - Google Docs
 - Diigo
 - Prezi
 - Voice Thread
- Audio – How I Introduce Myself in a Digital Age?
 - Podcasts
 - Radio Drama
- Video – How I Make My Presence Known in a Digital Age?
 - Flipshare
 - Movie Maker
 - Animoto
 - Extranormal
- Graphics – How do I visually communicate?
 - Gimp
 - Photoshop.com
 - Picnic
 - Aviary
 - Wordle
- Web – How I Promote Myself?
 - Weebly

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals.
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K,R)
4. I can analyze cultural and environmental influences when assessing children's development. (R)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood (i.e., biological, social, emotional, financial, and educational). (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)

4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can collaborate using Web 2.0 tools to create a specific project. (R,P)
2. I can utilize social bookmarking tools to research applicable online resources for a specific project. (K,R,P)
3. I can use online presentation tools to present a specific topic to an authentic audience. (K,R,S,P)
4. I can create an online Web 2.0 portfolio for feedback from an authentic audience. (K,S,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify appropriate resources needed to accomplish my goals. (K,R,S)
2. I can select and utilize the appropriate equipment to complete a task. (K,R)
3. I can identify dangerous situations and keep myself safe in online environments. (K,R)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can maintain technological equipment in order to extend its duration. (K,R,S)
2. I can explain and practice appropriate procedures for completing complex tasks relating to digital environments. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can interact with media and explain how it influences my life. (K,R)
2. I can manage, explain, and organize technological tools. (K,R,S)
3. I can recognize and follow appropriate troubleshooting techniques and protocol. (K,R)
4. I can demonstrate and use various technological tools in a variety of situations. (R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use technical tools and apply them to real life situations. (K,R)
2. I can develop and present technical information to a variety of sources. (K,R,S,P)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K,S)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Graphic Design 1

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: Recommended: 30 wpm and Technology Tools

Course Description:

Students will create a variety of digital projects using programs such as Photoshop, Illustrator and InDesign. Students create projects such as movie posters, print ads, posters, magazine covers, magazine layout design, CD covers, illustrations, logos, and corporate identity packages as well other projects as time allows. Course topics include principles of page layout and design as well as developing an understanding of commercial design. Students will maintain a digital portfolio of their work.

Topics:

- Windows 7/File Management
- Ethics/Online Safety - My Digital Responsibility
- Principals and Elements Design
- Graphic File Formats
- Understanding Basic Typography
- Photo editing
 - Example Projects:
 - Posters
 - Typography project(s)
- Photo Illustrations
 - Example Projects:
 - Magazine Covers
 - Ad Campaigns
 - Logo/Identity Packages
 - Vector projects

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)

3. I can evaluate approaches for meeting my goals. *(R)*
4. I can identify my personal goals and values. *(K)*
5. I can identify my personal strengths and weaknesses. *(K)*

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*
3. I can identify child development theories and their implications for educational and childcare practices. *(K, R)*
4. I can analyze cultural and environmental influences when assessing children's development. *(R)*
5. I can analyze abilities and needs of children and their effects on children's growth and development. *(R)*
6. I can identify appropriate guidelines for positive interactions with children. *(K)*
7. I can identify changes in family roles and family types. *(K)*
8. I can interpret the family life cycle/roles of parents. *(R)*
9. I can define and identify ways parenting skills can be developed. *(K)*
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) *(R)*
11. I can evaluate the demands and rewards of parenting. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can apply and stay within a fixed budget. *(S)*
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. *(K)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(S)*
2. I can prioritize resources, equipment and tasks. *(S)*
3. I can reflect upon completion. *(S)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)

3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply knowledge of hardware and software appropriately to accomplish tasks. (K,R,S)
2. I can demonstrate the ability to efficiently navigate the network and operating system. (K,R,S)
3. I can demonstrate the ability to manage files and navigate the network. (K,R,S)
4. I can compose organize, and edit information using a computer. (K,R,S)
5. I can create, modify, store, retrieve, scan and print files. (K,R,S)
6. I can proofread and edit files for accuracy, content, appearance and/or creativity, and for correct grammar, spelling, and punctuation. (K)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify the appropriate resource needed to accomplish my goals. (K,R)
2. I can select and utilize the appropriate equipment required to complete a task. (K,R,S,P)
3. I can identify dangerous situations and keep myself safe in online environments. (K,R)
4. I can comply with copyright laws regarding the use of technology including citing references appropriately. (K,R,P)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify and apply principles and techniques of publication design. (K,R,S)
2. I can use resources including the Internet efficiently and effectively for research and electronic communications. (K,R)
3. I can analyze current technological events and/or issues. (K,R)
4. I can analyze the impact of desktop publishing on society including concepts related to persuasiveness, marketing, and point of view. (K,R)
5. I can demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and Intranet. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use and enhance an established repertoire of skills and procedures as needed to operate various technologies. (K,R,S)
2. I can demonstrate competence with basic system and tool set-up, technical terminology, basic care and maintenance. (K,R,S,P)
3. I can use and refine troubleshooting strategies to resolve technical operations problems. (K,R)
4. I can apply sophisticated skills and strategies to enhance performance and ease task completions. (K,R)

5. I can integrate technology in designing, developing, presenting and managing projects. analyze and evaluate a variety of technologies and match the best technology to a task. (K,R,S,P)
6. I can analyze and evaluate a variety of technologies and match the best technology to a task. (K,R,S,P)
7. I can create a portfolio of original work using various technologies. (K,R,S,P)
8. I can apply and evaluate personal understanding to develop an innovative solution to an authentic problem. (K,R,S,P)
9. I can transfer academic and technical skills to the level of industry standards. (K,R,S,P)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (K,R,S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (K,R,S)
3. I can open and close one or more digital images in photo editing software. (K,R,S)
4. I can browse for digital media using a multimedia organizer. (K,R,S)
5. I can import digital media using a digital camera and scanner into a photo editing program. (K,R,S)
6. I can create a new file and close files using a photo editing tools. (K,R,S)
7. I can navigate the workspace panels in a photo editing tools. (K,R,S)
8. I can crop and transform digital images using photo editing tools. (K,R,S)
9. I can manipulate layers, make selections and create layer masks using photo editing tools. (K,R,S)
10. I can manipulate tone and color correction with adjustment layers using photo editing tools. (K,R,S)
11. I can retouch images using photo editing tools. (K,R,S)
12. I can combine multiple images. (K,R,S)
13. I can apply filters to multiple layers. (K,R,S)
14. I can locate and demonstrates understanding of written technical and non-technical information necessary for completion of task or project. (K,R,S,P)
15. I can use proper business or technical writing styles, take effective notes, and complete written assignments legibly, completely, and accurately. (K,R,S,P)
16. I can use fractions, decimals, and percents. (K,R,S)
17. I can identify a vector graphic. (K,R,S)
18. can create a path and alter its appearance. (K,R,S)
19. I can control the stacking order of the elements in Illustrator. (K,R,S)
20. I can create a new file. (K,R,S)
21. I can create a closed path. (K,R,S)
22. I understand anchor points. (K,R,S)
23. I can draw straight paths with the pen tool. (K,R,S)
24. I can draw curved paths with the pen tool. (K,R,S)
25. I can smooth paths and use the eraser tool. (K,R,S)
26. I can join and average paths. (K,R,S)
27. I can simplify paths. (K,R,S)
28. I can clean up errant paths. (K,R,S)

29. I can use the ruler and guides. *(K,R,S)*
30. I can use the grids and bounding box. *(K,R,S)*
31. I can use and shut off the smart guides. *(K,R,S)*
32. I can create custom views. *(K,R,S)*
33. I can lock and hide artwork. *(K,R,S)*
34. I can use basic selection tools. *(K,R,S)*
35. I can use the magic wand tool. *(K,R,S)*
36. I can use the lasso tool. *(K,R,S)*
37. I can select objects by attribute or type. *(K,R,S)*
38. I can save or reuse selections. *(K,R,S)*
39. I can select artwork beneath other objects. *(K,R,S)*
40. I can understand anchor points. *(K,R,S)*
41. I can draw straight paths with a pen tool. *(K,R,S)*
42. I can draw a curved path with a pen tool. *(K,R,S)*
43. I can draw freeform paths with a pencil tool. *(K,R,S)*
44. I can edit anchor points. *(K,R,S)*
45. I can join and average paths. *(K,R,S)*
46. I can simplify paths. *(K,R,S)*
47. I can create compound paths and shapes. *(K,R,S)*
48. I can use the pathfinder. *(K,R,S)*
49. I can create text. *(K,R,S)*
50. I can apply basic character and paragraph settings. *(K,R,S)*
51. I can create text threads. *(K,R,S)*
52. I can set text along an open path. *(K,R,S)*
53. I can set text along a closed path. *(K,R,S)*
54. I can convert text into a path. *(K,R,S)*
55. I can create a logo. *(K,R,S)*
56. I can add type to a logo. *(K,R,S)*
57. I can apply color to artwork. *(K,R,S)*
58. I can create spot color swatches. *(K,R,S)*
59. I can create gradients with the gradient panel. *(K,R,S)*
60. I can modify gradients. *(K,R,S)*
61. I can apply and modify gradient fills. *(K,R,S)*
62. I can apply basic stroke settings. *(K,R,S)*
63. I can create strokes with dashed lines. *(K,R,S)*
64. I can understand the application window. *(K,R,S)*
65. I can navigate pages. *(K,R,S)*
66. I can manage more than one document window. *(K,R,S)*
67. I can set rulers and measurements. *(K,R,S)*
68. I can position panels and save time by making workspaces. *(K,R,S)*
69. I can adjust view and preview settings. *(K,R,S)*
70. I can rotate pages and spreads. *(K,R,S)*
71. I can set application and document preferences. *(K,R,S)*
72. I can use keyboard shortcuts. *(K,R,S)*

73. I can set margin and column guides. (K,R,S)
- 74 . I can use ruler guides. (K,R,S)
75. I can bleed colors and images of the side. (K,R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Graphic Design 2

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: Graphic Design 1

Course Description:

Graphic Design 2 students will continue expanding their knowledge of digital design using programs such as Photoshop, Illustrator, and InDesign. Projects will focus on real-world applications. Students will create community projects when applicable. Other projects will enhance student understanding of a career in graphic design. Course topics include elements and principles of layout and design as well as developing an understanding of commercial design. Students will maintain a digital portfolio of their work.

Topics:

- Windows 7/File Management
- Ethics/Online Safety – My Digital Responsibility
- Photo Editing
 - Example Projects:
 - Book Cover Designs
 - CD labels/Covers
 - Triptychs
 - Graphic Novels
- Photo Illustrations
 - Example Projects:
 - Logos
 - Vector Projects
- Page Layout and Design
 - Example Projects:
 - Publication (i.e., magazine or newsletter)
- Other Real-World Projects

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)

3. I can evaluate approaches for meeting my goals. *(R)*
4. I can identify my personal goals and values. *(K)*
5. I can identify my personal strengths and weaknesses. *(K)*

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*
3. I can identify child development theories and their implications for educational and childcare practices. *(K,R)*
4. I can analyze cultural and environmental influences when assessing children's development. *(R)*
5. I can analyze abilities and needs of children and their effects on children's growth and development. *(R)*
6. I can identify appropriate guidelines for positive interactions with children. *(K)*
7. I can identify changes in family roles and family types. *(K)*
8. I can interpret the family life cycle/roles of parents. *(R)*
9. I can define and identify ways parenting skills can be developed. *(K)*
10. I can evaluate factors to consider in determining personal preparedness for parenthood (i.e., biological, social, emotional, financial, and educational). *(R)*
11. I can evaluate the demands and rewards of parenting. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management) .

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can apply and stay within a fixed budget. *(S)*
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. *(K)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(S)*
2. I can prioritize resources, equipment and tasks. *(S)*
3. I can reflect upon completion. *(S)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply knowledge of hardware and software appropriately to accomplish tasks. (K,R,S)
2. I can demonstrate the ability to efficiently navigate the network and operating system. (K,R,S)
3. I can demonstrate the ability to manage files and navigate the network. (K,R,S)
4. I can compose, organize, and edit information using a computer. (K,R,S)
5. I can create, modify, store, retrieve, scan, and print files. (K,R,S)
6. I can proofread and edit files for accuracy, content, appearance and/or creativity, and for correct grammar, spelling, and punctuation. (K)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify the appropriate resource needed to accomplish my goals. (K,R)
2. I can select and utilize the appropriate equipment required to complete a task. (K,R,S,P)
3. I can identify dangerous situations and keep myself safe in online environments. (K,R)
4. I can comply with copyright laws regarding the use of technology including citing references appropriately. (K,R,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify and apply principles and techniques of publication design. (K,R,S)
2. I can use resources including the Internet efficiently and effectively for research and electronic communications. (K,R)
3. I can analyze current technological events and/or issues. (K,R)
4. I can analyze the impact of desktop publishing on society, including concepts related to persuasiveness, marketing, and point of view. (K,R)
5. I can demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and Intranet. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use and enhance an established repertoire of skills and procedures as needed to operate various technologies. (K,R,S)
2. I can demonstrate competence with advanced system and tool set-up, technical terminology, basic care and maintenance. (K,R,S,P)
3. I can use and refine troubleshooting strategies to resolve technical operations problems. (K,R)

4. I can apply sophisticated skills and strategies to enhance performance and ease task completions. *(K,R)*
5. I can integrate technology in designing, developing, presenting, and managing project. *(K,R,S,P)*
6. I can analyze and evaluate a variety of technologies and match the best technology to a task. *(K,R,S,P)*
7. I can create a portfolio of original work using various technologies. *(K,R,S,P)*
8. I can apply and evaluate personal understanding to develop an innovative solution to an authentic problem. *(K,R,S,P)*
9. I can transfer academic and technical skills to the level of industry standards. *(K,R,S,P)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice and demonstrate my technical workplace skills in my school lab. *(K,R,S)*
2. I can research, write, and present on the technical content utilizing academic skills found in workplace settings. *(K,R,S)*
3. I can manage pages in layout and design software. *(K,R,S)*
4. I can set text frame columns and threaded text frames. *(K,R,S)*
5. I can set vertical justification and first baseline posting. *(K,R,S)*
6. I can fit graphics to a frame. *(K,R,S)*
7. I can format, find, and change object formatting. *(K,R,S)*
8. I can create polygons and star bursts using page layout and design software. *(K,R,S)*
9. I can transform objects in page layout and design software. *(K,R,S)*
10. I can manipulate the tools in photo editing, illustration, and pay layout software to create visually pleasing designs. *(K,R,S,P)*
11. I can discriminate between a visually pleasing design and a discordant one. *(K,R,S)*
12. I can evaluate my own work and critique the work of others to improve the quality of my design work. *(K,R,S,P)*
13. I can differentiate between an effective communication message and an ineffective one. *(K,R)*
14. I can support and defend my design using my knowledge of the elements and principles of design. *(K,R,S,P)*
15. I can apply paragraph formatting in page layout and design software. *(K,R,S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(S)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*S*)
3. I can present my unique project to an authentic audience. (*S*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (*Type*):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (*Type*):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S*)

Marketing 1:

Introduction to Business, Economics, and Finance

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisite: None

Course Description:

Marketing 1 develops student understanding in such areas as business law, economics, emotional intelligence, financial analysis, human resources management, information management, marketing, operations, and strategic management. Students acquire knowledge of fundamental business activities and factors affecting businesses and marketing.

The American economy is based on a private enterprise system in which the millions of individual choices made by consumers, workers, and citizens, affect the decisions made by business owners and government officials. The preservation and effectiveness of such a system depends on the ability of individuals to make wise economic decisions, the successful operation of organizations, and the economic activities of the country. To make these informed decisions, individuals must understand how the system operates as well as their role in the system. These concepts are essential for the successful management of finance and business activities.

Co-curricular with Career & Technical Student Organizations, including BPA and DECA (optional by school).

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*
3. I can identify child development theories and their implications for educational and childcare practices. *(K, R)*
4. I can analyze cultural and environmental influences when assessing children's development. *(R)*
5. I can analyze abilities and needs of children and their effects on children's growth and development. *(R)*
6. I can identify appropriate guidelines for positive interactions with children. *(K)*
7. I can identify changes in family roles and family types. *(K)*
8. I can interpret the family life cycle/roles of parents. *(R)*
9. I can define and identify ways parenting skills can be developed. *(K)*
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) *(R)*
11. I can evaluate the demands and rewards of parenting. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can apply and stay within a fixed budget. *(S)*
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. *(K)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(S)*
2. I can prioritize resources, equipment and tasks. *(S)*
3. I can reflect upon completion. *(S)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. *(S)*

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can recognize the customer-oriented nature of marketing and analyze the impact of marketing activities on the individual, business, and society. (K,S)
2. I can analyze the characteristics, motivations, and behaviors of consumers. (S,R)
3. I can analyze the influence of external factors on marketing.(S,R)
4. I can analyze the elements of the marketing mix, their interrelationships, and how they are used in the marketing process.(S,R)
5. I can analyze the role of marketing research in decision making.(S,R)
6. I can assess opportunity costs and trade-offs involved in making choices about how to use scarce economic resources.(K,S,R)
7. I can explain why societies develop economic systems, identify the basic feature of different economic systems, and analyze the major features of the US economic system. (K)
8. I can analyze the role of core economic institutions and incentives in the US economy.(S,R)
9. I can analyze the role of markets and prices in the US economy.(S,R)
10. I can analyze the different types of market structures and the effect they have on the price and quality of goods and services produced.(S,R)
11. I can analyze the role of government in economic systems, especially the role of government in the US economy.(S,R)
12. I can examine the role of trade, protectionism, and monetary markets in the global economy. (K,S,R)
13. I can analyze how the US economy functions as a whole.(S,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can understand and follow listed directions to keep students and equipment safe. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning

1. I can use best practices equipment, programs, and procedures for specific tasks (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. (K)
2. I can understand and follow appropriate trouble shooting steps. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use research procedures and skills to develop an informed position on a marketing-related issue (K,R,S)
2. I can select appropriate technology in a business environment (R,S)
3. Select and use presentation software and electronic media (R,S,P)
4. Explain and evaluate the effects of technology on consumers and business (K,R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Marketing 2: Marketing, Management, & Leadership

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisite: Recommended: Marketing 1

Course Description:

Marketing Management is the process of using organizational resources effectively and efficiently to achieve organizational goals through planning, organizing, leading/directing, and evaluating/controlling. Management education helps students understand and analyze various management theories and apply them to the workplace. Management education also helps students understand basic management functions, their interrelationships, and the organization's competitive niche.

Successful managers are able to maximize the utilization of human resources. They are leaders who understand the benefits of teamwork and consensus building inside and outside an organization's operations. They recognize the importance of technology and information management in the decision-making process and the value of ethics and social responsibility in building and maintaining business relationships. And like entrepreneurs, successful managers know that the ability to discern and respond quickly to changing economic conditions and new business opportunities is crucial to remaining viable in the marketplace.

Co-curricular with Career & Technical Student Organizations, including BPA and DECA (optional by school).

NOTE: Throughout this document, learning target types are identified as knowledge ("K"), reasoning ("R"), skill ("S"), or product ("P").

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)

2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities.(K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (S)
3. I can identify child development theories and their implications for educational and childcare. (K,R)
4. I can analyze cultural and environmental influences when assessing children's development. (R)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood (i.e., biological, social, emotional, financial, and educational). (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles.
2. I can apply leadership styles in group activities and projects.

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (K)
2. I can develop personal and work related goals. (K,R,S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can analyze the management functions and their implementation and integration within the business environment. (S,R)
2. I can analyze management theories and their application within the business environment. (S,R)
3. I can analyze the organization of a business. (S,R)
4. I can develop personal management skills to function effectively and efficiently in a business environment. (P,R,S)
5. I can examine the role of ethics and social responsibility in decision making. (K,R,S)
6. I can describe human resource functions and their importance to an organization's successful operation. (K,S)
7. I can describe the role of organized labor and its influence on government and business. (K,S)
8. I can utilize information and technology tools to conduct business effectively and efficiently. (K,R,S)
9. I can analyze a business organization's competitive position within the industry. (S,R)
10. I can analyze financial data influenced by internal and external factors in order to make short-term and long-term decisions. (S,R)
11. I can apply operations management principles and procedures to the design of an operation plan. (K,R,S,P)
12. I can examine the issues of corporate culture and managing in the global environment. (K,S,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can understand and follow listed directions to keep students and equipment safe. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use best practices equipment, programs, and procedures for specific tasks. (K,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. (K)
2. I can understand and follow appropriate trouble shooting steps. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use research procedures and skills to develop an informed position on a marketing-related issue. (K,R,S)
2. I can select appropriate technology in a business environment. (R,S)
3. I can select and use presentation software and electronic media. (R,S,P)
4. I can explain and evaluate the effects of technology on consumers and business. (K,R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Marketing 3: Entrepreneurship

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: Recommended Marketing 2

Course Description:

Entrepreneurship focuses on recognizing a business opportunity, starting a business based on the recognized opportunity, and operating and maintaining that business. All students benefit from developing an appreciation for and understanding of entrepreneurship in our economy: most of the jobs (both professional and technical) created in recent years have been in the small business sector. Forecasts indicate that this trend will continue.

Entrepreneurial skills are necessary not only for students who will become entrepreneurs, but also for individuals working in the increasingly competitive corporate world. Entrepreneurship is a natural fit for business education because entrepreneurship integrates the functional areas of business—accounting, finance, marketing, and management—and the legal and economic environments in which any new venture operates.

Co-curricular with Career & Technical Student Organizations, including BPA and DECA (optional by school).

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans.(K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*
3. I can identify child development theories and their implications for educational and childcare practices. *(K, R)*
4. I can analyze cultural and environmental influences when assessing children's development. *(R)*
5. I can analyze abilities and needs of children and their effects on children's growth and development. *(R)*
6. I can identify appropriate guidelines for positive interactions with children. *(K)*
7. I can identify changes in family roles and family types. *(K)*
8. I can interpret the family life cycle/roles of parents. *(R)*
9. I can define and identify ways parenting skills can be developed. *(K)*
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) *(R)*
11. I can evaluate the demands and rewards of parenting. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)**Benchmark 1:**

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can apply and stay within a fixed budget. *(S)*
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. *(K)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(S)*
2. I can prioritize resources, equipment and tasks. *(S)*
3. I can reflect upon completion. *(S)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. *(S)*

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. *(K)*
2. I can maintain the tools of the trade. *(S)*
3. I can maximize the use of my resources *(S)*.
4. I can investigate the costs of birth defects to family and society. *(S)*

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*S*)
2. I can apply leadership styles in group activities and projects. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*K*)
2. I can develop personal and work related goals. (*K,R*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*R*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*S,R*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R,S*)
4. I can participate in classroom discussions while respecting diverse opinions. (*S,R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S*)
3. I can develop quality written professional communications. (*S*)
4. I can model and demonstrate appropriate communication skills. (*S*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can recognize that entrepreneurs possess unique characteristics and evaluate the degree to which one possesses those characteristics. (*K,R*)
2. I can analyze customer groups and develop a plan to identify, reach, and keep customers in a

specific target market. (S,R)

3. I can apply economic concepts when making decisions for an entrepreneurial venture. (K,S)
4. I can use the financial concepts and tools needed by the entrepreneur in making business decisions. (K,S,R)
5. I can recognize that entrepreneurs must establish, maintain, and analyze appropriate records to make business decisions.(K,R,S)
6. I can develop a management plan for an entrepreneurial venture.(K,S,R,P)
7. I can analyze the effect of cultural differences, export/import opportunities, and trends on an entrepreneurial venture in the global marketplace.(S,R)
8. I can analyze how forms of business ownership, government regulations, and business ethics affect entrepreneurial ventures.(S,R)
9. I can develop a business plan.(K,S,R,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can understand and follow listed directions to keep students and equipment safe (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use best practices equipment, programs, and procedures for specific tasks (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. (K)
2. I can understand and follow appropriate trouble shooting steps. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use research procedures and skills to develop an informed position on a marketing-related issue (K,R,S)
2. I can select appropriate technology in a business environment (R,S)
3. I can select and use presentation software and electronic media (R,S,P)
4. Explain and evaluate the effects of technology on consumers and business (K,R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)

2. I can demonstrate the concepts of entrepreneurship through a unique project. (*S*)
3. I can present my unique project to an authentic audience. (*S*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (*Type*):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (*Type*):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S*)

Marketing 4: Global Business Issues

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: Recommended Marketing 3

Course Description:

Global Business Issues command center stage in today's global economy. The international business standards focus on:

- raising awareness of the interrelatedness of one country's political policies and economic practices on another;
- learning to improve international business relations through appropriate communication strategies;
- understanding the global business environment--that is, the interconnectedness of cultural, political, legal, economic, and ethical systems;
- exploring basic concepts underlying international finance, management, marketing, and trade relations; and
- identifying forms of business ownership and international business opportunities.

Co-curricular with Career & Technical Student Organizations, including BPA and DECA (optional by school).

NOTE: Throughout this document, learning target types are identified as knowledge ("K"), reasoning ("R"), skill ("S"), or product ("P").

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (S)
3. I can identify child development theories and their implications for educational and childcare practices. (K,R)
4. I can analyze cultural and environmental influences when assessing children's development. (R)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and education). (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)**Benchmark 1:**

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to my family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can explain the role of international business; analyze how it impacts business at all levels, including the local, state, national, and international levels. (K,R,S)
2. I can describe the interrelatedness of the social, cultural, political, legal, and economic

- factors that shape and impact the global business environment. (K,R,S)
3. I can apply communication strategies necessary and appropriate for effective and profitable international business relations. (K,R,S)
 4. I can describe the factors that define what is considered ethical and socially responsible business behavior in a global business environment. (K,R,S)
 5. I can identify forms of business ownership and entrepreneurial opportunities available in international business. (K,R,S)
 6. I can relate balance of trade concepts to the import/export process. (K,R,S)
 7. I can analyze special challenges in operations, human resources, and strategic management in international business. (S,R)
 8. I can apply marketing concepts to international business situations. (K,R,S)
 9. I can explain the concepts, role, and importance of international finance and risk management. (K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can understand and follow listed direction to keep students and equipment safe. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use best practices equipment, programs, and procedures for specific tasks. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. (K)
2. I can understand and follow appropriate trouble shooting steps. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use research procedures and skills to develop an informed position on a marketing-related issue. (K,R,S)
2. I can select appropriate technology in a business environment. (R,S)
3. I can select and use presentation software and electronic media. (R,S,P)
4. I can explain and evaluate the effects of technology on consumers and business. (K,R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*S*)
3. I can present my unique project to an authentic audience. (*S*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (*Type*):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (*Type*):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S*)

Marketing 5: Career Specialties 1

Organization, Leadership & Management

Grades 10-12

Units of Credit: One Semester-Each Topic (Elective)

Prerequisites: Consent of Instructor

Course Description:

Career Specialties courses are unique to elements of the individual student pathways. This course explores clusters and pathways using management higher-level performance indicators. This course offer students an opportunity to apply and extend their classroom training in an area of their interest. Examples include Store Management, Business Plans, Business Research and Individual/Team projects.

Co-curricular with Career & Technical Student Organizations, including BPA and DECA (optional by school).

Topics:

Business Plans (Entrepreneurship)

- Creating a New Business
- Creating an International Business
- Creating a Franchise Business
- Creating an Internet Business

Online Competition

- The Stock Market Game
- Virtual Business Retail
- Virtual Business Sports/Entertainment
- Virtual Business Personal Finance

Business Operations & Research

- Community Service
- Entrepreneurship Promotional Plan
- Learn and Earn
- Financial Literacy Promotion Plan

Hospitality Cluster

- Restaurant and Food Service
- Hotel and Lodging
- Sports and Entertainment

Store Management

- Store Operations

- Store Merchandising
- Store Finance
- QuickBooks

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K, R)
4. I can analyze cultural and environmental influences when assessing children’s development. (R)
5. I can analyze abilities and needs of children and their effects on children’s growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K,S)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can recognize the customer-oriented nature of marketing and analyze the impact of marketing activities on the individual, business, and society. (K,R,S)
2. I can analyze the characteristics, motivations, and behaviors of consumers. (R,S)
3. I can analyze the influence of external factors on marketing. (S,R)
4. I can analyze the elements of the marketing mix, their interrelationships, and how they are used in the marketing process. (R,S)
5. I can analyze the role of marketing research in decision making. (R,S)
6. I can describe the elements, design, and purposes of a marketing plan. (K,R,S)
7. I can explain the role of international business; analyze how it impacts business at all levels, including the local, state, national, and international levels. (K,R,S)
8. I can describe the interrelatedness of the social, cultural, political, legal, and economic factors that shape and impact the global business environment. (K,R,S)
9. I can apply communication strategies necessary and appropriate for effective and profitable international business relations. (K,R,S)
10. I can describe the factors that define what is considered ethical and socially responsible business behavior in a global business environment. (K,R,S)
11. I can identify forms of business ownership and entrepreneurial opportunities available in international business. (K,S)
12. I can relate balance of trade concepts to the import/export process. (K,R,S)
13. I can analyze special challenges in operations, human resources, and strategic management in international business. (S,R)
14. I can apply marketing concepts to international business situations. (K,R,S)

15. I can explain the concepts, role, and importance of international finance and risk. (K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can understand and follow listed directions to keep students and equipment safe (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use best practices equipment, programs, and procedures for specific tasks. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. (K)

2. I can understand and follow appropriate trouble shooting steps. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use research procedures and skills to develop an informed position on a marketing-related issue (K,R,S)

2. I can select appropriate technology in a business environment (R,S)

3. Select and use presentation software and electronic media (R,S,P)

4. Explain and evaluate the effects of technology on consumers and business (K,R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)

2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (S)

2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)

3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (S)

2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (S)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S*)

Marketing 6: Career Specialties 2

Organization, Leadership & Management

Grades 10-12

Units of Credit: One Semester-Each Topic (Elective)

Prerequisites: Consent of Instructor

Course Description:

Career Specialties courses are unique to elements of the individual student pathways. This course explores clusters and pathways using management higher-level performance indicators. This course offer students an opportunity to apply and extend their classroom training in an area of their interest.

Co-curricular with Career & Technical Student Organizations, including BPA and DECA (optional by school).

Topics:

- Store Management
- Business Plans
- Business Research
- Individual/Team Projects

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*
3. I can identify child development theories and their implications for educational and childcare practices. *(K,R)*
4. I can analyze cultural and environmental influences when assessing children's development. *(R)*
5. I can analyze abilities and needs of children and their effects on children's growth and development. *(R)*
6. I can identify appropriate guidelines for positive interactions with children. *(K)*
7. I can identify changes in family roles and family types. *(K)*
8. I can interpret the family life cycle/roles of parents. *(R)*
9. I can define and identify ways parenting skills can be developed. *(K)*
10. I can evaluate factors to consider in determining personal preparedness for parenthood (i.e., biological, social, emotional, financial, and educational). *(R)*
11. I can evaluate the demands and rewards of parenting. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can stay within a fixed budget. *(S)*
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. *(K)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(S)*
2. I can prioritize resources, equipment and tasks. *(S)*
3. I can reflect upon completion. *(S)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. *(S)*

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. *(S)*
2. I can maintain the tools of the trade. *(S)*
3. I can maximize the use of my resources. *(S)*

4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S, R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can recognize the customer-oriented nature of marketing and analyze the impact of marketing activities on the individual, business, and society. *(K,R,S)*
2. I can analyze the characteristics, motivations, and behaviors of consumers. *(S,R)*
3. I can analyze the influence of external factors on marketing. *(S,R)*
4. I can analyze the elements of the marketing mix, their interrelationships, and how they are used in the marketing process. *(S,R)*
5. I can analyze the role of marketing research in decision making. *(S,R)*
6. I can describe the elements, design, and purposes of a marketing plan. *(K,R,S)*
7. I can explain the role of international business; analyze how it impacts business at all levels, including the local, state, national, and international levels. *(K,R,S)*
8. I can describe the interrelatedness of the social, cultural, political, legal, and economic factors that shape and impact the global business environment. *(K,R,S)*
9. I can apply communication strategies necessary and appropriate for effective and profitable international business relations. *(K,R,S)*
10. I can describe the factors that define what is considered ethical and socially responsible business behavior in a global business environment. *(K,R,S)*
11. I can identify forms of business ownership and entrepreneurial opportunities available in international business. *(K,S)*
12. I can relate balance of trade concepts to the import/export process. *(K,R,S)*
13. I can analyze special challenges in operations, human resources, and strategic management in international business. *(S,R)*
14. I can apply marketing concepts to international business situations. *(K,R,S)*
15. I can explain the concepts, role, and importance of international finance and risk. *(K,R,S)*

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can understand and follow listed directions to keep students and equipment safe. *(K)*

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use best practices equipment, programs, and procedures for specific tasks. *(K)*

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. *(K)*
2. I can understand and follow appropriate trouble shooting steps. *(K,S)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use research procedures and skills to develop an informed position on a marketing-related issue. *(K,R,S)*
2. I can select appropriate technology in a business environment. *(R,S)*
3. I can select and use presentation software and electronic media. *(R,S,P)*
4. I can explain and evaluate the effects of technology on consumers and business. *(K,R,S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Personal Finance

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

The growing emphasis on financial literacy has highlighted the need for students to learn how to navigate the financial decisions they must make and how to make informed decisions related to managing finances and budgeting, saving and investing, living independently, earning and reporting income, buying goods and services, using credit, banking, and protecting against risk and funding future educational opportunities. This course generates knowledge to develop personal financial independence to be financially fit. Students are provided with current financial information through engagement with community resources. Electronic office technology is used when appropriate, for example, ten-key calculators, word processing, and/or spreadsheets. Students will be assessed on completion of projects and simulation exercises and performance on practical application exams.

Topics:

- Manual and computer money management systems
- Units of Count/Exchange
- History of Money
- Personal Budget
- Credit and debit cards, checking accounts
- On-line banking
- Interest Rates
- Loans (school, housing, automobile, commercial, signature, payday, etc.)
- Realities of payday loans and pawns
- Investments/Savings
- Opportunity cost
- Financial restructuring (re-finance, bankruptcy, loan modifications, etc.)
- Financial Institutions
- Financial statements (income statement, balance sheet, bank statement, etc.)
- Understanding employment documentation and payroll
- Future education costs and funding sources (Pell grants, subsidized loans, FAFSA, etc.)

Financial Planning

What is, needs vs. wants, setting goals, time-lines for goals, create plan, implement plan, monitor and modify plan

Career

Work and money, what employers want, making money, after high school, costs and benefits of college education, other education options, entrepreneurship, accounting careers

Budget

Money coming in, pay stub, W-4, W-2, I-9, money going out, cash management, building budget, pay yourself first, cost/benefit analysis, track expenses-what do you spend your money on

Saving & Investments: Your Money at Work

Saving vs. investing, time value of money, compounding/rates of return, rule of 72, key investment principles-time, advantage of starting early, risk vs. return, diversification, inflation & taxes, income investments, mutual funds

Credit: Buy Now, Pay Later

Credit costs/APR, credit benefits, sources of credit-credit cards, installment loans, revolving, student loans, auto loans, mortgages, setting limits on credit, comparing credit cards, credit reports and scoring, how to get out from under excessive debt, bankruptcy.

Insurance: Risk Management

Keeping costs down, auto/home/life insurance, coverage amounts, shopping for policies, future insurance needs

Depository Institutions

Managing checking accounts, online banking

Spreadsheet Fundamentals (if computers available)**Simulations**

Stock market game

NOTE: Throughout this document, learning target types are identified as knowledge ("K"), reasoning ("R"), skill ("S"), or product ("P").

STANDARD 1: Students experience various career opportunities and assess personal career pathways.**Benchmark 1:**

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)

2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K, R)
4. I can analyze cultural and environmental influences when assessing children's development. (R)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (P)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can identify the required steps necessary to maintain finances either with a manual or computerized approach. (*K*)
2. I can identify money resources and expenditures and how they relate to a personal budget. (*K, R*)
3. I can create a budget which specifically reflects and relates to personal cash flow. (*P, R*)
4. I can analyze whether a personal budget is realistic and obtainable. (*R*)
5. I can determine the appropriate information in establishing payroll withholdings and allowances. (*S*)
6. I can analyze the time value of money. (*S*)
7. I can reason how scarce resources are used to satisfy unlimited wants. (*S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify the appropriate resources needed to accomplish my goals. (*K,R,S*)
2. I can select and utilize the appropriate equipment to complete a task. (*K,R*)
3. I can identify dangerous situations and keep myself safe in online environments. (*K,R*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use current technologies to manage personal finances. (*S*)
2. I can generate financial documents which are required for loan acquisition. (*S*)
3. I can generate accurate payroll documentation. (*S*)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can manage, explain, and organize technological tools. (*K,R,S*)
2. I can recognize and follow appropriate troubleshooting techniques and protocol. (*K,R*)
3. I can demonstrate and use various technological tools in a variety of situations. (*R,S*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use technical tools and apply them to real life situations. (*K,R*)
2. I can develop and present technical information to a variety of sources. (*K,R,S,P*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*S*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*S*)
3. I can present my unique project to an authentic audience. (*S*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S*)

Street Law

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Street Law emphasizes practical law and provides opportunities for students to become educated in the American legal system. Students learn basic legal principles to apply as a citizen, consumer and employee. Study includes the structure and history of the legal system (criminal and civil), laws applying to minors, contract law, consumer law, employment law, property and landlord/tenant law, insurance, credit law, tort law, and white collar crimes.

This course offers available introduction to the laws that influence and shape our personal and professional lives. Real-life situations and applications are provided through an extensive group of guest speakers such as judges, lawyers, law enforcement officers, court reporters, and others.

Topics:

- Kinds of Law
- History of Law
- Careers in Law
- Law Enforcement in Courts
- Types of Crimes
- Employment Contracts and Conditions
- Varieties of Insurance
- Substance Abuse
- Contract Law
- Consumer Law
- Tort Law
- Juvenile Justice
- Credit Law
- Bankruptcy
- Real and Personal Property Law
- Landlord Tenant Law
- Warranty and Product Liability
- Laws Affecting Computers
- Internet Safety

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. *(S,R)*
2. I can formulate tentative career goals. *(R)*
3. I can evaluate approaches for meeting my goals. *(R)*
4. I can identify my personal goals and values. *(K)*
5. I can identify my personal strengths and weaknesses. *(K)*

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*
3. I can identify child development theories and their implications for educational and childcare practices. *(K, R)*
4. I can analyze cultural and environmental influences when assessing children's development. *(R)*
5. I can analyze abilities and needs of children and their effects on children's growth and development. *(R)*
6. I can identify appropriate guidelines for positive interactions with children. *(K)*
7. I can identify changes in family roles and family types. *(K)*
8. I can interpret the family life cycle/roles of parents. *(R)*
9. I can define and identify ways parenting skills can be developed. *(K)*
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) *(R)*
11. I can evaluate the demands and rewards of parenting. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*

4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can understand the various kinds of law.(K,R,S)
2. I can explain the history of Law.(K,R)
3. I can research careers in Law.(K,R)
4. I can recognize Law enforcements role in society.(K,R)
5. I can define the types of crimes.(K,R,S)
6. I can understand contracts.(K,R)
7. I can examine the varieties of insurance. (K,R)
8. I can know the cause and affects of substance abuse.(K,R,S)
9. I can define and use consumer, tort, and credit law.(K,R,S,P)
10. I can research and report on juvenile justice.(K,R)
11. I can explain the reasons and outcomes for bankruptcy.(K,R,S,P)
12. I can interpret real & personal property law.(K,R,S,P)
13. I can understand and use landlord tenant law.(K,R,S,P)
14. I can research current laws affecting computers.(K,R)
15. I can examine warranties and product liability.(K,R)
16. I can document, implement, and apply Internet Safety. (K,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can apply standard and proper procedure in using technology. (K,R)
2. I can understand and follow listed directions (wall chart) to keep students and equipment safe.(K,R)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use best practices equipment, programs, and procedures for specific tasks. (K,R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use established procedures to manage and maintain technological tools. (*K,R,S,P*)
2. I can understand and follow appropriate trouble shooting steps. (*K,R,S*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use various sources to apply technical information. (*K,R,S*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*S*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*S*)
3. I can present my unique project to an authentic audience. (*S*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S*)

Technology Tools

Grades 9-12

Units of Credit: One Semester (Elective)

Recommended Prerequisites: Recommended typing 30 words per minute

Course Description:

In this course, students learn basic operation and function of the computer, to select appropriate software for various applications, and become aware of the fast-changing world of business and information technology. Students will select and use word processing, desktop publishing, data base, spreadsheet, presentation, graphics, multimedia, and Internet (search engine strategies, Internet protocol) and imaging software (scanners, digital cameras). This course provides students with knowledge that is readily applicable in other subject areas (especially useful for senior projects). It is recommended that this course be taken prior to enrolling in Graphics Design and Web Design. This is a lab class—all work is completed using computers on site. Students engage in a variety of learning experiences, including hands-on computer applications (word processing, spreadsheet, database, Internet research projects, multimedia presentations). Students will have access to the most recent hardware and software available. Students will be assessed on completion of projects and performance on practical application exams.

Topics:

- Windows 7/File Management
- Hardware/Software
- Digital Environments
- Word Processing
- Spreadsheets (real word application)
- Publishing
- Presentations
- Movie Making
- Photo Editing

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)

2. I can formulate tentative career goals. (*R*)
3. I can evaluate approaches for meeting my goals. (*R*)
4. I can identify my personal goals and values. (*K*)
5. I can identify my personal strengths and weaknesses. (*K*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)
3. I can identify child development theories and their implications for educational and childcare practices. (*K, R*)
4. I can analyze cultural and environmental influences when assessing children's development. (*R*)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (*R*)
6. I can identify appropriate guidelines for positive interactions with children. (*K*)
7. I can identify changes in family roles and family types. (*K*)
8. I can interpret the family life cycle/roles of parents. (*R*)
9. I can define and identify ways parenting skills can be developed. (*K*)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (*R*)
11. I can evaluate the demands and rewards of parenting. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can apply and stay within a fixed budget. (*S*)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (*K*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*S*)
2. I can prioritize resources, equipment and tasks. (*S*)
3. I can reflect upon completion. (*S*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.**Benchmark 1:**

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)

2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply knowledge of hardware and software appropriately to accomplish tasks. (K,R,S,P)
2. I can demonstrate the ability to efficiently navigate the network and operating system. (K,R,S,P)
3. I can demonstrate the ability to manage files and navigate the network. (K,R,S,P)
4. I can compose organize, and edit information using a computer. (K,R,S)
5. I can create, modify, store, retrieve, scan and print files. (K,R,S)
6. I can proofread and edit files for accuracy, content, appearance and/or creativity, and for correct grammar, spelling, and punctuation. (K,R,S,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify the appropriate resource needed to accomplish my goals. (K,R,S)
2. I can select and utilize the appropriate equipment to complete a task. (K,R)
3. I can identify dangerous situations and keep myself safe in online environments. (K,R)
4. I can comply with copyright laws regarding the use of technology including citing references appropriately. (K,R,S,P)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify and apply principles and techniques of publication design. (K,R,S,P)
2. I can use resources including the Internet efficiently and effectively for research and electronic communications. (K,R)
3. I can analyze current technological events and/or issues. (K,R)
4. I can analyze the impact of desktop publishing on society including concepts related to persuasiveness, marketing, and point of view. (K,R)
5. I can demonstrate proper etiquette and knowledge of acceptable use policies when using networks, especially resources on the Internet and Intranet. (K,R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can use and enhance an established repertoire of skills and procedures as needed to operate various technologies. (K,R,S)
2. I can demonstrate competence with basic system and tool set-up, technical terminology, basic care and maintenance. (K,R,S)
3. I can use and refine troubleshooting strategies to resolve technical operations problems. (K,R)
4. I can apply sophisticated skills and strategies to enhance performance and ease task

completions. *(K,R,S,P)*

5. I can integrate technology in designing, developing, presenting and managing projects. analyze and evaluate a variety of technologies and match the best technology to a task. *(K,R,S,P)*
6. I can create a portfolio of original work using various technologies. *(K,R,S,P)*
7. I can apply and evaluate personal understanding to develop an innovative solution to an authentic problem. *(K,R,S,P)*
8. I can transfer academic and technical skills to the level of industry standards. *(K,R,S,P)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(K,R,S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(K,R,S,P)*
3. I can open and close one or more digital images in photo editing software. *(K,R,S)*
4. I can browse for digital media using a multimedia organizer. *(K,R,S)*
5. I can import digital media using a digital camera and scanner into a photo editing program. *(K,R,S)*
6. I can create a new file and close files using a photo editing tools. *(K,R,S)*
7. I can navigate the workspace panels in a photo editing tools. *(K,R,S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(S)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(S)*
3. I can present my unique project to an authentic audience. *(S)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(K)*
3. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. *(K,R,S)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Web Design

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: Recommended Digital Media

Course Description:

This course presents introductions to many of the basic concepts, issues and techniques related to designing, developing and deploying Web sites. During the course, students will learn about Web design, HTML, XHTML, Dynamic HTML, and Cascading Style Sheets (CSS). Students will learn how to create sites both manually and through the use of Web site development software. This course includes the basics of designing and creating Flash animations on Web sites using industry standard commercial software tools. Appropriate uses of animation are taught as part of the total Web design solution. Some topics covered include character design, creation and motion, tweening, effects and storyboarding.

Topics:

- Ethics/Online Safety and Digital Responsibility
- Website Evaluations
- Web Based Applications
- HTML, XHTML
- CSS
- Flash
- Dreamweaver

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)

2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K, R)
4. I can analyze cultural and environmental influences when assessing children's development. (R)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)

2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

Standard 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can identify and evaluate the basic design principals. (K)
2. I can identify and evaluate the steps in designing a website. (K,R)
3. I can identify the principles of good design in a website. (K,R)
4. I can create and use basic animation. (K,R,S,P)
5. I can create and use slices. (K,R,S,P)
6. I can create, use, and optimize rollovers. (K,R,S,P)
7. I can create and use a navigation bar. (K,R,S,P)
8. I can create and use an image map. (K,R,S,P)
9. I can identify and create HTML codes needed to create a web page. (K,R,S,P)
10. I can evaluate, identify, and repair HTML code in the creation process. (K,R,S,P)
11. I can make, modify, and use selections. (K,R,S,P)
12. I can edit and retouch an image. (K,R,S,P)
13. I can work with filters and layers. (K,R,S,P)
14. I can utilize basic color correction functions. (K,R,S,P)
15. I can optimize graphics/images for web page. (K,R,S,P)
16. I can use a template to create a website. (K,R,S,P)
17. I can create and use tables, a photo gallery, images, and navigation bar. (K,R,S,P)
18. I can design web pages using layout tables. (K,R,S,P)
19. I can create a web page, modify page properties, and publish a website. (K,R,S,P)
20. I can add and manually format text, apply element tags, create and modify an embedded internal and external style sheet. (K,R,S,P)
21. I can use hyperlinks, rollovers, and image maps effectively. (K,R,S,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify the origins of the Internet and the World Wide Web. (K)
2. I can identify the differences between major web browsers. (K,R)
3. I can recite the basic development of the Internet, web, and vocabulary related thereto. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can demonstrate the importance of planning and organizing information. (K,R)
2. I can explain and practice appropriate procedures for completing complex tasks relating to a digital environment. (K,R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can create, maintain, and navigate folders and establish file/folder naming procedures. (K,R)
2. I can use and establish a repertoire of skills and procedures as needed to operate various technologies. (K,R)
3. I can demonstrate competence with basic system and tool set-up, technical terminology, basic care, and maintenance. (K,R)
4. I can use and refine troubleshooting strategies to resolve technical operations problems. (K,R)
5. I can apply sophisticated skills and strategies to enhance performance and ease task completion. (K,R,S)

6. I can create a portfolio of original work using various technologies. *(K,R,S,P)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can create a website for an authentic audience using a variety of sources. *(K,R,S,P)*
2. I can define different media types and different file extensions to appropriately apply these to a website. *(K,R)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(S)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(S)*
3. I can present my unique project to an authentic audience. *(S)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(K)*

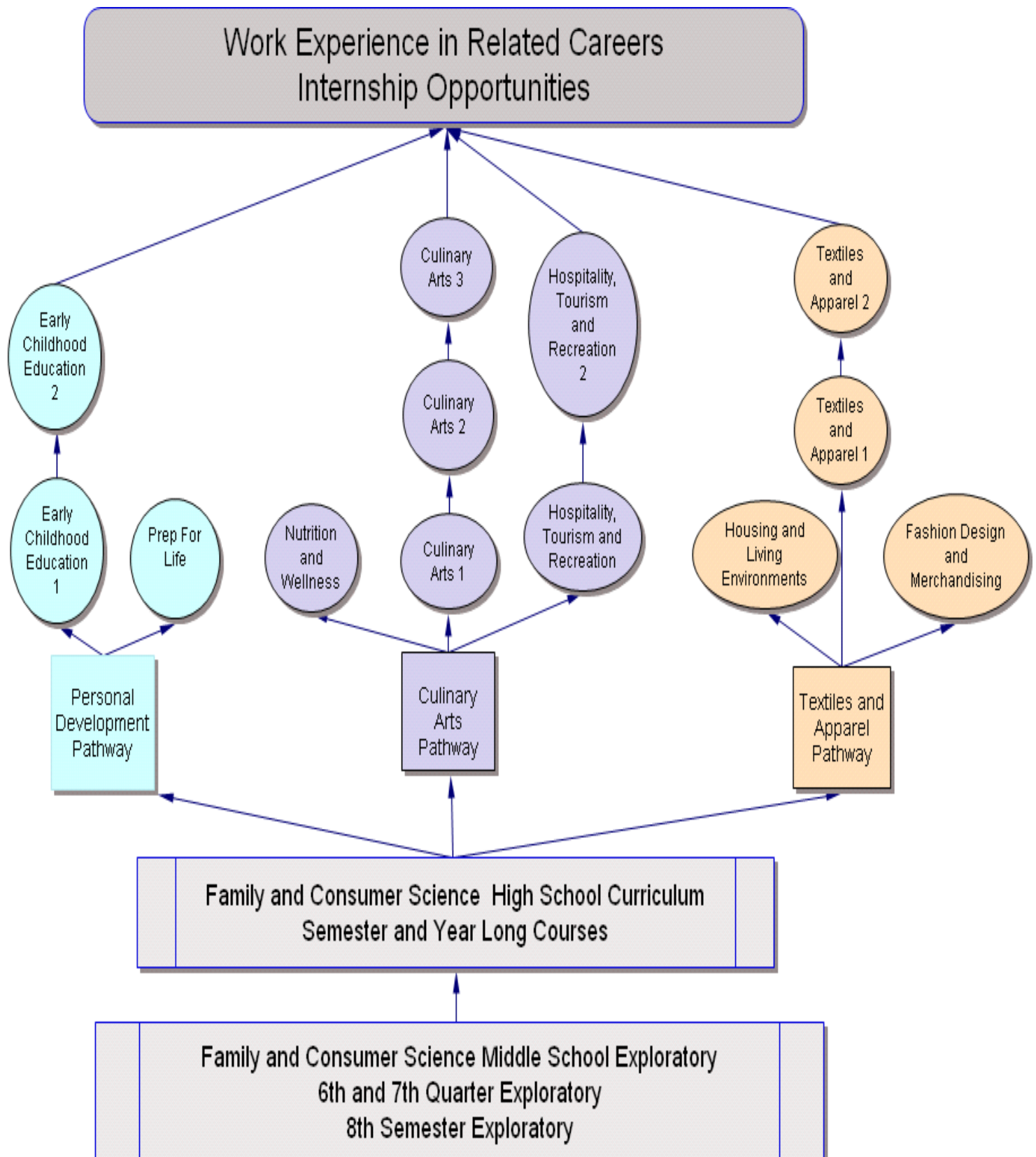
Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(S)*

FAMILY AND CONSUMER SCIENCE



Family and Consumer Science

Grade 6

Units of Credit: One Quarter (Elective)

Prerequisites: None

Course Description:

In 6th grade Family and Consumer Science, students learn about textiles, basic sewing and cooking techniques and tools, and are introduced to personal financial management and career exploration.

Topics:

- Clothing care
- Textiles
- Culinary
- Food and nutrition
- Life skills
- Safety and sanitation

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can describe clothing care and storage. (K)
2. I can describe how to launder and how to press clothes. (K)
3. I can make simple clothing repairs. (S)
4. I can take measurements to determine pattern size. (S)
5. I can construct and finish a sewing project. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can describe safety guidelines for microwave cooking. (K)
2. I can demonstrate safety and sanitation procedures for working with food. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can sew on a button. (S)
2. I can thread and operate a sewing machine. (S)
3. I can thread and operate a sewing machine. (S)
4. I can identify basic kitchen utensils and cookware and describe their use. (K)
5. I can identify use and care of small and large appliances. (K)
6. I can measure dry and liquid ingredients accurately. (S)
7. I can define appropriate manners and behavior when eating at home or in a restaurant. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can explain the usefulness of sergers in sewing and operate a serger machine. (K)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can identify different laundry products. (*K*)
2. I can identify and explain the use of small sewing equipment. (*K*)
3. I can identify the food groups, in the food pyramid and gives recommended servings for each. (*K*)
4. I can select and interpret a recipe. (*K*)
5. I can identify abbreviations and equivalents. (*K*)
6. I can set a table correctly. (*S*)
7. I can define appropriate manners and behavior when eating at home or in a restaurant. (*K*)
8. I can make a simple meal. (*S*)
9. I can define the 6 types of cookies. (*S*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

- 1 I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Family and Consumer Science

Grade 7

Units of Credit: One Quarter (Elective)

Prerequisites: None

Course Description:

In 7th grade Family and Consumer Science, students expand on their knowledge and skills involving textiles and the culinary arts. They continue the exploration of career possibilities and are introduced to family management skills.

Topics:

- Clothing care
- Textiles
- Culinary
- Food and nutrition
- Life skills
- Career exploration
- Stress and crisis management
- Lifecycles and options
- Safety and sanitation

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can take measurements to determine pattern size.(S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can thread and operate a sewing machine. (S)
2. I can describe resources available to families who need help. (K)
3. I can describe safety guidelines for microwave cooking. (K)
4. I can demonstrate safety and sanitation procedures for working with food. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can take measurements to determine pattern size.(S)
2. I can explain the usefulness of sergers in sewing and operate a serger machine. (R)
3. I can construct and finish a sewing project. (P)
4. I can identify and explain the use of small sewing equipment. (K)
5. I can Identify simple kitchen utensils and cookware and describe their use. (K)
6. I can identify use and care of small and large appliances. (K)
7. I can measure dry and liquid ingredients accurately. (S)
8. I can apply appropriate manners and behavior when eating at home or in a restaurant. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can thread and operate a sewing machine. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can identify and explain the use of small sewing equipment. (K)
2. I can identify various family forms. (K)
3. I can explain the family life cycle and how roles affect family's. (K)
4. I can describe factors that make a family unique. (K)
5. I can describe ways families can handle life challenges. (K)
6. I can select and interpret a recipe. (K)
7. I can identify abbreviations and equivalents. (K)
8. I can set a table correctly. (S)
9. I can define appropriate manners and behavior when eating at home or in a restaurant. (K)
10. I can make a simple meal. (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Family and Consumer Science

Grade 8

Units of Credit: One Quarter (Elective)

Prerequisites: None

Course Description:

In 8th grade Family and Consumer Science, students continue to build their knowledge and skills in textiles, the culinary arts, career exploration, and financial literacy.

Topics:

- Clothing care
- Textiles
- Culinary
- Food and nutrition
- Life skills
- Career Exploration
- Financial literacy
- Measurements
- Safety and sanitation

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)

2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R,S*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can explain the usefulness of sergers in sewing and operate a serger machine. (R)
2. I can construct and finish a sewing project. (P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can thread and operate a sewing machine. (S)
2. I can explain the differences of a debit card, credit card, and an ATM card and a gift card. (K)
3. I can reconcile a checkbook. (S)
4. I can describe safety guidelines for microwave cooking. (K)
5. I can demonstrate safety and sanitation procedures for working with food. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify and explain the use of small sewing equipment. (K)
2. I can Identify kitchen utensils and cookware and apply their use. (K)
3. I can identify use and care of small and large appliances. (K)
4. I can measure ingredients accurately. (S)
5. I can apply appropriate manners and behavior when eating at home or in a restaurant. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can write a check, a deposit slip. (*S*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can explain and define banking term vocabulary. (*K*)
2. I can take measurements to determine pattern size. (*R*)
3. I can select and interpret a recipe. (*K*)
4. I can identify abbreviations and equivalents. (*K*)
5. I can prepare a simple meal and set the table. (*S*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*S*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*S*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Nutrition and Wellness

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Nutrition and Wellness is an in-depth study of the nutrients our bodies need and how we can best provide those nutrients for optimal health and wellness. The course looks at government regulations regarding the safety of our food supply as well as technology in food production such as genetic modification. Students apply what they learn about nutrition in food labs and create dishes to meet the dietary requirements from the lecture portion of the class. Students also explore various modalities of personal wellness such as self-reflection, journaling, group play and yoga.

Topics:

- Food safety and sanitation
- Guidelines to a healthy diet
- Nutrients
- Evaluating nutritional claims
- Nutrition, physical activity and fitness
- Fortified foods and supplements
- Reading food labels
- Nutritional needs through our life cycle
- Diseases, obesity, and nutrition
- Wellness: a holistic approach
- Careers in the industry

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can analyze personal qualifications, interests, values, and educational preparation necessary for employment in a career in nutrition and/or wellness. (R)
5. I can compare personal goals to career opportunities in nutrition and wellness. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)
3. I can analyze jobs and preparation requirements for careers in nutrition and wellness occupations in my local area. (*R*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)
3. I can explain the physical, emotional, social, psychological, and spiritual components of individual and family wellness. (*K*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).**Benchmark 1:**

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)
5. I can develop a personal or family financial plan. (*S,R*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S,R*)
2. I can contribute to my community in a positive manner. (*S*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S,R*)
3. I can practice self-awareness through journal writing, movement, yoga, group play, and relaxation. (*P*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*S,R*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*S,R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S*)
3. I can develop quality written professional communications. (*S*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can evaluate food habits and meal patterns in terms of family values, customs and cultural influences. (*R*)
2. I can describe the influence of social, psychological, technological, governmental and scientific developments on nutrition and wellness practices. (*K*)
3. I can investigate current health concerns related to nutrition and wellness. (*S*)

4. I can illustrate basic principles of nutrition to promote healthy food choices. (S)
5. I can demonstrate correct baking techniques. (S)
6. I can demonstrate methods of food preparation for a variety of food products. (S)
7. I can compute mathematical formulas to change the yield of a recipe. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can Identify potential health and wellness risks involving safety and sanitation hazards in the kitchen. (K)
2. I can practice safety and sanitation procedures when handling, preparing, storing and serving food. (S)
3. I can practice safe usage of kitchen tools and appliances. (S)
4. I can demonstrate proper storage and handling of food. (S)
5. I can describe the dangers of cross-contamination. (K)
6. I can explain basic culinary first aid procedures. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can read and follow a recipe. (S)
2. I can demonstrate an understanding kitchen tools and what they are used for. (S)
3. I can choose equipment for my converted recipe. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can analyze federal, state, and local inspections and labeling systems that protect the health of individuals and the public. (R)
2. I can list the dietary guidelines of the food guide pyramid. (K)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can investigate current health concerns related to nutrition and wellness. (S)
2. I can analyze the governmental, economic and technological influences on food choices and practices. (R)
3. I can describe the effects of global and local events and conditions on food choices and practices. (K)
4. I can analyze legislation and regulations related to nutrition and wellness. (R)
5. I can identify good food sources of vitamins, minerals, carbohydrates, protein and fat. (K)
6. I can evaluate the functions and the requirements of vitamins, minerals, carbohydrates, protein, fat and water on nutrition and wellness across the life span. (R)
7. I can apply scientific - based dietary guidelines in planning to meet nutrition and wellness needs of individuals and families. (S)
8. I can recognize health and nutrition requirements of individuals and families with special dietary needs. (S)
9. I can evaluate food and nutrition information, including food labels and nutritional claims in relation to the content of the food. (R)
10. I can state the recommended number of daily servings and serving sizes for each of the 6

- areas of the USDA Food Guide Pyramid. (K)
11. I can demonstrate an understanding of portion control. (S)
 12. I can identify the sources and function of carbohydrates, protein, fat, vitamins and minerals, and apply appropriate food preparation techniques. (K)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write, and present on the technical content, utilizing academic skills found in workplace settings. (R,P,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use industry standard equipment available to me to produce an authentic product within budget constraints. (S,R,P)

Culinary Arts 1

Grades 9-12

Credit Unit: One Semester (Elective)

Prerequisite: None

Course Description:

Culinary Arts 1 is the first of a sequential pathway that provides students with a firm foundation in basic food preparation. This will include quick breads, egg preparation, dairy products, meats, basic desserts, diet and nutrition. Industry safety and sanitation standards are stressed with all food labs. Students will be exposed to the latest in food industry technology. This class is lab based however it does include demonstrations, field trips, and speakers. This is part of a career pathway for Hospitality/Tourism, health, nutrition, and food related careers. This inquiry course is designed to be interactive, student centered, collaborative, cooperative, and relevant.

Topics:

- Sanitation
- Quick Breads,
- Protein Foods
- Fruits, Vegetable
- Nutrition
- Reading Recipes And Measurements
- Basic Desserts
- Egg Cookery
- Basic Cooking Skills

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e. financial, time, personal management).

Benchmark 1:**Learning Targets (Type):**

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)
5. I can develop a personal or family financial plan. (S)

Benchmark 2:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R,S)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Apply appropriate time to task.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

Benchmark 5:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate and show evidence of a properly set a table. (*S, P*)
2. I can demonstrate correct baking techniques. (*S*)
3. I can demonstrate various methods of food preparation for a variety of products. (*K*)
4. I can apply math skills in order to convert a recipe. (*S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate proper hand-washing and sanitation techniques. (*S*)
2. I can clean and maintain small and large equipment. (*S*)
3. I can demonstrate proper storage and handling of food. (*S*)
4. I can describe the dangers of cross-contamination. (*K*)
5. I can explain basic culinary first aid procedures. (*K*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can choose equipment for my converted recipe. (K)
2. I can apply safety procedures with cooking. (S)
3. I can read and follow a recipe. (K)
4. I can demonstrate an understanding of kitchen tools and their purpose. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can apply knowledge of common kitchen equipment usage to correct cooking techniques. (K,S)
2. I can explore the dietary guidelines of the food guide pyramid. (K,R)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can describe the purpose and use of Material Safety Data Sheets. (K)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (S)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Culinary Arts 2

Grades 10-12

Credit Unit: One Semester (Elective)

Prerequisite: Successful completion of Culinary Arts 1, or Nutrition and Wellness with a grade of “C” or higher; and/or Consent of Instructor

Course Description:

Culinary Arts 2 is the second of a sequential pathway that focuses on a wide variety of topics. These might include appetizers, garnishes, soups, salads, cake decorating, pastry crusts, and meal planning. Industry safety and sanitation standards are stressed with all food labs. Students will be exposed to the latest in food industry technology. This class is lab based however it does include demonstrations, field trips, and speakers. This is part of a career pathway for Hospitality/Tourism, health, nutrition, and food related careers. This inquiry course is designed to be interactive, student centered, collaborative, cooperative, and relevant.

Topics:

- Sanitation
- Yeast Bread
- Garnishes
- Appetizers
- Meal Planning
- Cake Decorating
- Soups And Salads
- Advanced Cooking Skills

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e. financial, time, personal management).**Benchmark 1:**

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)
5. I can develop a personal and family financial plan. (*R,S*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.**Benchmark 1:**

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate how to properly set a buffet table. (*S*)
2. I can fold a variety of napkin designs. (*S*)
3. I can identify and use common ingredients in baking. (*K*)
4. I can review and apply appropriate abbreviations, techniques, equivalents, calculate recipe-size adjustments, and proper measuring techniques with correct equipment. (*S, K*)
5. I can prepare yeast breads. (*P*)
6. I can demonstrate advanced cooking and baking skills with a variety of food products. (*K, S, P*)
7. I can demonstrate piping skills (deviled eggs, cake decorating, cream puffs, chocolate, potatoes). (*S*)
8. I can demonstrate the aesthetic presentation of food. (*S*)
9. I can demonstrate cake decorating skills. (*S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate methods to safely heat, cool and store food properly. (S)
2. I can demonstrate safe food handling and preparation techniques that prevent cross contamination from potentially hazardous foods. (S)
3. I can operate tools and equipment following safety procedures. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can demonstrate cooking methods that increase nutritional value, lower calorie and fat content, and utilize herbs and spices to enhance flavor. (S)
2. I can demonstrate how to hold and carry a knife properly. (S)
3. I can demonstrate advanced knife skills. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can apply knowledge of advanced kitchen equipment usage to advanced cooking techniques. (K,S)
2. I can apply the dietary guidelines of the food guide pyramid. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can locate Material Safety Data Sheets. (K)
2. I can interpret the owner's manual for equipment. (R)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Culinary Arts 3

Grades 11-12

Units of Credit: One Semester or One Year (Elective)

Prerequisites: Successful completion of Culinary Arts 2 with a grade of “B” or higher and/or Consent of Instructor

Course Description:

This class focuses on application of knowledge from Culinary 1 and 2 with food preparation and equipment usage. Students can become ServSafe Nationally certified. The class will explore many facets of culinary arts as well as learn the vital practice of quality food preparation. Students will gain knowledge of the career/educational opportunities available.

Topics:

- ServSafe Manager Certification
- Artisan Breads
- Catering Skills
- Foods Service Experience
- Advanced Food Service Preparation Skills
- International Cuisine
- New Trends And Current Technology

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)
5. I can develop a personal or family financial plan. (*S*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can identify my education and work experience to create a professional resume using current technology. (*K,S,P*)
2. I can practice and demonstrate proper interview dress and interview styles for success in locating a position in the food industry. (*K,R,S*)
3. I can locate facilities or businesses to intern with. (*S*)
4. I can apply background knowledge to food service preparation. (*S*)
5. I can apply teamwork and cooperative skills. (*S*)
6. I can build upon the principles of effective group participation and leadership related to workplace hierarchy. (*K,R*)
7. I can cater to a variety of school related projects. (*S,P*)
8. I can incorporate management of time, energy, and resources in preparing a meal. (*S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can apply proper sanitation practices and safety standards. (*S*)
2. I can demonstrate safe and proper use of food service equipment. (*S*)
3. I can demonstrate safe food handling and preparation techniques that prevent cross contamination from potentially hazardous foods. (*S*)
4. I can apply hazardous material and waste management procedures in accordance with the

Material Data Safety Sheets. (S)

5. I can take and apply the ServSafe National certification training and exam to the classroom. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify new trends and current technology in food product development in marketing. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can apply knowledge of advanced kitchen equipment usage to advanced cooking techniques. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can organize, process, analyze, and maintain written and computerized records and other forms of information. (R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (S)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (S)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Textiles & Apparel 1

Grades 9-12

Credit Unit: One Semester (Elective)

Prerequisites: None

Course Description:

Textiles and Apparel 1 introduces students to clothing, fashion, and basic clothing construction concepts and techniques. Students learn basic sewing skills and apply the skills to apparel and home interiors. Basic use of a sewing machine, serger, basic hand sewing techniques, pattern selection, pattern layout, and measuring skills are integral parts of the course. Use of technology and software applications aid students in determining measurements, fabric requirements, and design elements.

Topics:

- Characteristics and types of natural fabrics
- Patterns, fabric and notions
- Sewing machines, sergers, and other sewing equipment
- Getting ready to sew
- Basic sewing construction
- Applying technology to clothing construction
- Career exploration

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (K)
2. I can formulate tentative career goals. (K)
3. I can evaluate approaches for meeting my goals. (R)
4. I can analyze career paths within the textiles and apparel design industry. (K)
5. I can evaluate roles and responsibilities of individuals engaged in textiles and apparel careers. (K)
6. I can analyze opportunities for employment and entrepreneurial endeavors. (K,R)
7. I can demonstrate skills needed to produce, alter, or repair textiles products and apparel. (S,P)
8. I can evaluate the elements of textiles and apparel merchandising. (K,R)
9. I can differentiate the skills for career success. (K,R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K,S)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (K,S)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e. financial, time, personal management).**Benchmark 1:**

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (K)
2. I can document financial inputs and outputs. (K,S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (K,S)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (K)
2. I can prioritize resources, equipment and tasks. (K)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (K)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K,S)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (K,S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.**Benchmark 1:**

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (K)
2. I can apply leadership styles in group activities and projects. (K,S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*K*)
2. I can develop personal and work related goals. (*K*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can demonstrate proper etiquette and courtesy. (*S*)
5. I can demonstrate tasks related to effective personal management skills (time management, work ethics. (*S*))

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*K,S*)
3. I can work to understand diverse points of view. (*K,S*)
4. I can model an understanding of one's personal values. (*K,R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*K,S*)
2. I can effectively communicate verbally through collaborative projects. (*K*)
3. I can develop quality written professional communications. (*P*)
4. I can demonstrate effective people skills and communication skills. (*S*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can identify manmade and natural textile fibers. (*K*)
2. I can compare manmade and natural textile fibers. (*K*)
3. I can analyze the most common manmade and natural textile fibers. (*K*)
4. I can identify textile characteristics on design, construction, care, use and maintenance of products. (*K,R,S*)
5. I can demonstrate basic skills for producing and altering textile products and apparel. (*S, P*).
6. I can follow layout and cutting directions for a pattern. (*K,R,S*)

7. I can relate the history of clothing to the current fashion trends. (K)
8. I can utilize elements and principles of design in designing, altering, and production of classroom projects. (K,S)
9. I can apply color theory and color schemes to projects. (P)
10. I can understand the connections between accessories, hair, and make-up in the fashion industry. (K,S)
11. I can classify designers to their areas of expertise. (K,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can use a regular sewing machine and serger sewing machine safely. (K)
2. I can use an embroidery sewing machine effectively and use the technology appropriately. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can differentiate performance characteristics of textile fiber and fabrics. (K,S)
2. I can use a variety of equipment, tools, and supplies for apparel and textile construction, alteration and repair. (S,P)
3. I can explain the production processes for creating fibers, yarns, woven, and knit fabrics, and non-woven textiles products. (K,R)
4. I can use appropriately industry tools for cutting, pressing and finishing textile, apparel and fashion products. (S,P)
5. I can analyze current technology and trends that facilitate design and production of textile, apparel and fashion products. (K, R)
6. I can use a basic sewing machine. (S)
7. I can use a serger sewing machine. (S)
8. I can determine a correct size and style for pattern purchase. (K)
9. I can evaluate fibers and textiles for use, care, and maintenance. (S)
10. I can evaluate elements and textiles in apparel manufacturing. (K,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can utilize embroidery software correctly and troubleshoot simple problems. (K)
2. I can troubleshoot simple problems with a sewing machine and serger sewing machine. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can analyze directions for sewing. (K)
2. I can access internet sites applicable to class curriculum. (S)
3. I can demonstrate an understanding of the marketing techniques that apply to the garment industry. (K,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (K,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K,S)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (K,S,P)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K,S)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K,S)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (K,S)

Textiles & Apparel 2

Grade 9-12

Credit Unit: One Semester (Elective)

Prerequisite: Textiles & Apparel 1

Course Description:

Textiles and Apparel 2 advances student's knowledge of sewing construction, fashion, art and design, fabrics. This class will enrich the student's knowledge of an efficient work place.

Technology aids students in designing apparel and home furnishings. Technology will aid students in developing individualized projects and career development.

The content of Textiles and Apparel 2 is arranged around the five MCPS Career and Technical Education Standards. These standards include technological skills and Knowledge, Career and Life Planning, Skills for Life and Work and Structure and Organization of Work. **Activities offered may vary from one MCPS high school to another due to facilities.

Topics:

- Technology related to sewing machines and the apparel and home furnishing industry
- Leadership skills
- Apply advanced sewing and technology skills
- Understanding color and design techniques in apparel and home furnishings
- Career exploration
- Entrepreneurship

NOTE: Throughout this document, learning target types are identified as knowledge ("K"), reasoning ("R"), skill ("S"), or product ("P").

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (K,S)
2. I can formulate tentative career goals. (K)
3. I can evaluate approaches for meeting my goals. (K,S)
4. I can analyze career paths within the textiles and apparel industry. (K,R)
5. I can analyze opportunities for employment and entrepreneurial endeavors. (K,R.)
6. I can identify skills necessary for a career in the textiles and apparel industry. (K,R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K,S)
2. I can contact my school career counselor or teacher to pursue career pathways. (K,S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K,S)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (K)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e. financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (K,S)
2. I can document financial inputs and outputs. (K,S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S,P)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (K,S)
3. I can maximize the use of my resources. (K,S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (K)
2. I can apply leadership styles in group activities and projects. (K)
3. I can assess skills and distribute work accordingly, evaluate performance and provide feedback toward the accomplishment or personal and team goals.(K,R)

4. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (K,R)
5. I can design, evaluate and refine a system composed of subsystems (e.g. community service project, peer mediation) (K,S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S,P)
2. I can develop personal and work related goals. (K,S)
3. I can describe ethical behavior in the workplace. (K)
4. I can demonstrate tasks related to effective personal management skills (time management, work ethic. (S)
5. I can demonstrate personal qualities that must be practiced in an environment that accurately represents the realities of today's workplace.(K,S)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (K,S)
2. I can contribute to my community in a positive manner. (K,S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (K,S)
3. I can work to understand diverse points of view. (R,S)
4. I can demonstrate sensitivity to diversity and individuals with special needs.(K,R)
5. I can demonstrate an understanding of one's personal values. (S,R,K)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (K,S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (K)
4. I can demonstrate effective people and communication skills (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply design concepts with material or computer applications. (S, P)
2. I can recycle a garment through redesign or other modification techniques. (S, P)

3. I can perform advanced sewing techniques (S, P)
4. I can set-in a cap sleeve.(S, P)
5. I can sew in a single flap zipper. (S, P)
6. I can sew a cuff and placket. (S, P)
7. I can sew a waistband. (S, P)
8. I can sew buttonholes with correct spacing and length.(S, P)
9. I can sew a variety of closures, i.e. hook and eyes, hook and loop, snaps. (S, P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can use technology effectively and efficiently.(K,S)
2. I can utilize technology applications in the apparel design process (K,R)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select correct pattern size, appropriate fabric and notions for a project. (S, P)
2. I can determine alterations to solve common fitting problems resulting from individual differences and special needs. (K, S, P)
3. I can compare fiber and fabric qualities to product design and function.(K,R)
4. I can define and solve problems, using problem-solving skills. (K,R)
5. I can allocate sufficient time, materials and resources to set and achieve goals. (K,R,)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can operate a sewing machine, a serger sewing machine, and an embroidery machine. (K,S)
2. I can troubleshoot simple mechanical and technological problems with sewing machines. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can demonstrate how technology relates to the textile and apparel industry. (K,P)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S,P)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (K,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (K,P)
3. I can present my unique project to an authentic audience. (K,S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*K,S,P*)

Early Childhood Education 1

Grades 9-12

Credit Unit: One Semester (Elective)

Prerequisite: None

Course Description:

Early Childhood Education 1 brings family , child development, and parenting skills alive for students. Students learn that parenting and child care skills depend on knowledge of child growth and development. Students may extend their knowledge beyond the high school setting by observing children at childcare and preschool facilities. Technology delivers up-to-date research related to advances in early childhood education.

Early Childhood Education 1 is arranged around the four MCPS Career and Technical Education standards. These standards include Technological Skills & Knowledge, Career and Life Planning, Skills for Life and Work, and Structure and Organization of Work.

Topics:

- Learning about yourself
- Learning about children
- Types of families
- Prenatal development and the newborn
- Infants/toddlers/preschoolers, ages birth to 3 years
- Guiding and caring for children

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify my personal goals and values. (K)
5. I can identify my personal strengths and weaknesses. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)

2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can identify child development theories and their implications for educational and childcare practices. (K, R)
4. I can analyze cultural and environmental influences when assessing children's development. (R)
5. I can analyze abilities and needs of children and their effects on children's growth and development. (R)
6. I can identify appropriate guidelines for positive interactions with children. (K)
7. I can identify changes in family roles and family types. (K)
8. I can interpret the family life cycle/roles of parents. (R)
9. I can define and identify ways parenting skills can be developed. (K)
10. I can evaluate factors to consider in determining personal preparedness for parenthood: (i.e., biological, social, emotional, financial, and educational.) (R)
11. I can evaluate the demands and rewards of parenting. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can apply and stay within a fixed budget. (S)
5. I can identify the costs involved with prenatal care, childbirth, and the first year of life. (K)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (S)
2. I can prioritize resources, equipment and tasks. (S)
3. I can reflect upon completion. (S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources (S).
4. I can investigate the costs of birth defects to family and society. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (S)
2. I can apply leadership styles in group activities and projects. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (S)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S)
4. I can participate in classroom discussions while respecting diverse opinions. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)
4. I can model and demonstrate appropriate communication skills. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate proper reading procedures for reading to children. (*S*)
2. I can recognize appropriate and inappropriate childhood discipline styles. (*R,K*)
3. I can identify the ages and stages of development. (*K*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can identify and explain safe uses of technology. (*K,S*)
2. I can research new and current trends in child development. (*S*)
3. I can analyze different forms of technology. (*S*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can list and define appropriate tools used in tasks related to child development. (*K*)
2. I can distinguish between safe tools related to child development. (*R*)
3. I can demonstrate how to use appropriate tools. (*S*)
4. I can list and define appropriate equipment used in tasks related to child development. (*K*)
5. I can distinguish between safe equipment related to child development. (*R*)
6. I can demonstrate how to use appropriate equipment. (*S*)
7. I can list and define appropriate procedures used in tasks related to child development. (*K*)
8. I can distinguish between appropriate procedures related to child development. (*R*)
9. I can demonstrate how to use appropriate procedures. (*S*)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can explain the workings of technological tools related to child development. (*K*)
2. I can apply reading skills in understanding and interpreting manuals related to technological tools used in the study of child development. (*S, R*)
3. I can identify and dissect technological troubleshooting skills when referring to manuals. (*K,R*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can assess a variety of methods to observe and interpret children's growth and development. (*S*)
2. I can implement learning activities in all curriculum areas that meet the developmental needs of children. (*S,P*)
3. I can analyze biological processes that are related to prenatal development, birth, and health of child and mother. (*R,K*)
4. I can analyze the emotional factors of prenatal development and birth in relation to the health of parent and child. (*R*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)
3. I can present my unique project to an authentic audience. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S)

Early Childhood Education 2

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: Successful completion of Early Childhood Education 1 with a grade of “C” or higher, and/or Consent of Instructor

Course Description:

The primary focus of this class is hands-on, on-site early child development experiences. This course prepares individuals for careers related to early childhood education. Experiences include: program planning and management, resource and facility management, supervising recreational and play activities, preparing and implementing a large variety of learning experiences for children, the application of individual teaching skills, and preparation for a career and/or entrepreneurial opportunities.

Topics:

- Types Of Childcare
- Focus on 3-5 Year Olds
- Age Appropriate Activities
- Practical Work Experience in Daycare Facilities

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S,R)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can interact appropriately with young children in a childcare setting. (S)
5. I can demonstrate correct reading techniques for small children. (S)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can apply and stay within a fixed budget. (*R,S*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*S*)
2. I can prioritize resources, equipment and tasks. (*S,R*)
3. I can reflect upon completion. (*S*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*S*)
2. I can apply leadership styles in group activities and projects. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*S*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (S,R)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (S,R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can prepare a daily schedule for a learning center. (S)
2. I can create a floor plan and equipment list for a learning center. (P,S)
3. I can plan and implement age-appropriate activities for social, emotional, physical, and intellectual development. (K,S)
4. I can establish learning center expectations for parents and children. (K,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can model appropriate caregiver behaviors at a learning center. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can list and define appropriate tools used in tasks related to child development. (K)
2. I can distinguish between safe tools related to child development. (R)
3. I can demonstrate how to use appropriate tools. (S)
4. I can list and define appropriate equipment used in tasks related to child development. (K)
5. I can distinguish between safe equipment related to child development. (R)
6. I can demonstrate how to use appropriate equipment. (S)
7. I can list and define appropriate procedures used in tasks related to child development. (K)
8. I can distinguish between appropriate procedures related to child development. (R)
9. I can demonstrate how to use appropriate procedures. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can explain the workings of technological tools related to child development. (*K*)
2. I can apply reading skills in understanding and interpreting manuals related to technological tools used in the study of child development. (*S, R*)
3. I can identify and dissect technological troubleshooting skills when referring to manuals. (*K,R*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can access local and state resources to implement best practices in a learning center. (*S,P*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*S,R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,P*)

Fashion Design and Merchandising

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Students gain insight into the world of fashion merchandising. Students shop the market, develop consumer skills, and explore career options available in the fashion industry. Retail business is studied and the qualifications and expectations for employees are addressed. A store project dealing with advertising and layout composes part of the course requirements. Technology aids students in designing clothing and computer sewing applications.

Topics:

- History of Fashion
- Elements of Design
- Principles of Design
- Body Drawing
- Fashion Design
- Pricing
- Marketing
- Trends
- Clothing Color Wheel
- Design Details
- Designers
- Fads and Classics
- Terms
- Figure Analysis and Body Types
- Fibers and Textiles
- Beauty and Fashion

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (K)
2. I can formulate tentative career goals. (R,P)

3. I can evaluate approaches for meeting my goals. (K)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K,S)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K,R)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (K,R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (K)
2. I can document financial inputs and outputs. (K,S)
3. I can identify the necessity to maintain accurate financial records. (S)
4. I can stay within a fixed budget. (S)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (R)
4. I can utilize the skills learned during the course to develop a line of clothing that is featured in a retail plan. (S,K,P)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (R)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (K,S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R,K*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*K*)
2. I can develop personal and work related goals. (*P*)
3. I can describe ethical behavior in the workplace. (*R*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*S,R,P*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*S*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S*)
3. I can develop quality written professional communications. (*S,P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can relate the history of clothing to the current fashion trends. (*K,R*)
2. I can utilize elements and principles of design in designing, altering, & int the production of classroom projects. (*S,K,P*)
3. I can apply color theory and color schemes to projects. (*K,P*)
4. I can evaluate fibers and textiles for use, care and maintenance. (*S,K*)
5. I can evaluate elements and textiles in apparel manufacturing. (*S,K,R*)
6. I can demonstrate an understanding of the marketing techniques that apply to the garment industry. (*K,S*)
7. I can classify designers to their areas of expertise. (*K,R*)

8. I can understand the connections between accessories, hair, and make-up in the fashion industry. *(K,R)*

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can access internet site applicable to class curriculum. *(S,K)*
2. I can define terms related to fashion design and computer applications. *(K)*

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I use the computer and equipment to complete components of the fashion store that I design and stock. *(K,S,P)*
2. I can transfer concepts into an original garment design that I construct. *(K,S,P)*

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can recycle materials into a usable accessory or clothing item. *(S,R,P)*
2. I can correctly use beauty products to alter my appearance or cover any flaws or Blemishes. *(K,S)*
3. I can alter by design to maximize any resources that I am given. *(K,S,P,R)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can apply marketing techniques to the fashion market. *(K,P)*
2. I can analyze trends and fads. *(P,K,R)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(K,S,P)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(K,S)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(K,S,P)*
3. I can present my unique project to an authentic audience. *(K,S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(K)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (*Type*):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*K,S*)

Housing and Living Environments

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Housing and Living Environments introduces students to basic architectural design of interior and exterior living spaces within the home and work environments. Students study the elements and principles of design and explore current and future trends in architectural design that affect housing decisions. Technology aids students in design planning as well as addressing new, innovative technological advances in the areas of textiles and furnishings. In addition, various careers in the industry are emphasized.

Topics:

- Furniture and Housing Styles and Design
- Housing Needs
- Elements and Principles of Design
- Housing Related Projects
- Floor Planning

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)

2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate the elements of principles and design. (*S*)
2. I can identify architectural styles based on historical design. (*K*)
3. I can identify my personal design style. (*K*)
4. I can read floor plan symbols and apply them to a project. (*S*)
5. I can listen to a clients needs and apply them to a project. (*S*)
6. I can design a project within a budget. (*P*)
7. I can identify furniture styles. (*K*)
8. I can create seasonal home decorations.

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can research costs of housing around the nation related to the local area. (*S*)
2. I can utilize design programs. (*S,R*)
3. I can identify and use appropriate architectural templates. (*K, S*)
4. I can create accessory projects. (*P*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can create and modify a floor plan project utilizing appropriate architectural templates. (*P,S*)
2. I can draw a floor plan to scale. (*P*)

3. I can select the appropriate tools of the trade for the task. (S)
4. I can select interior backgrounds and furnishings for the floor plan project. (K,R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can identify problem areas in floor plans and make adjustments. (K,P)
2. I can access computer programs for architectural design and furniture styles. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can determine the square footage of a room. (S)
2. I can read and understand energy usage related to the housing industry. (K)
3. I can determine resources needed for projects. (S)
4. I can identify earth friendly green projects for the home.(K)
5. I can explain the importance of backgrounds in home design.(K)
6. I can analyze mechanical systems and placement for the floor plan project. (R)
7. I can analyze traffic patterns in floor plans. (R)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use industry standard equipment available to me to produce an authentic product within budget constraints. (S,R,P)

Hospitality, Tourism, and Recreation (HTR) 1

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Hospitality, Tourism, and Recreation 1 is designed to acquaint students with the scope and economic impact of the hospitality, tourism and recreation industry. Major components will be recreation and leisure, meeting and event planning, restaurants, tourism, travel, food and lodging. Teaching strategies will include fieldtrips, guest speakers, technology aided presentations, lecture, reading assignments, and testing. Technology will be an integral part of this course. Assessment tools will include student assignments, written tests, student projects, presentations, and class participation.

Topics:

- History
- Tourism: Epoch, organizations, economic impact, promoters, social and cultural impact
- Hotel business: development and classifications
- Hotel and rooms division
- Hotel operations: food and beverage division
- Restaurant business: development and classification
- Restaurant operation
- Noncommercial food service and management
- Recreation and leisure
- Meetings, conventions, and expositions
- Marketing, human resources, and culture
- Leadership
- Management service and professionalism
- Cars, planes, cruise ships, and trains as means of travel

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (K,S)
2. I can formulate tentative career goals. (R)

3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K,S,R)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career. (K,R)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (K,R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (K)
2. I can document financial inputs and outputs. (K)
3. I can identify the necessity to maintain accurate financial records. (K,S)
4. I can stay within a fixed budget. (S)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (R)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (R)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K,R)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (K,S,R)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*K*)
2. I can apply leadership styles in group activities and projects. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*R*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*S,R*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*S,R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S*)
3. I can develop quality written professional communications. (*S*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can describe a brief history of tourism from the Greeks and Romans to the present day. (*K*)
2. I can outline the scope of tourism and identify the major influences on the increase of tourism, the various modes of travel, and the key organizations and the role they play from a global to a local perspective. (*K,R*)
3. I can illustrate the various forms of hotel development, types of hotels, their classification, and describe the way hotels cater to the business and leisure traveler. (*K ,R*)
4. I can provide a hands-on perspective that details the rooms division, department functions and activities. (*K,S*)
5. I can explain the guest cycle from reservations to check out. (*K*)

6. I can list the duties and responsibilities of the key executives and department heads of a hotel. (K)
7. I can give details about the food and beverages departments and illustrate the duties and responsibilities of the key food and beverage executives. (K.R)
8. I can develop a mission statement and operating philosophy for a restaurant. (K.R)
9. I can plan a restaurant with consideration to marketing concepts, concept of the restaurant, location, ambiance, menu planning, and classification. (P)
10. I can discuss restaurant operations focusing on forecasting, purchasing, receiving, storage/issuing, food production, and service. (K.R.S)
11. I can outline the different noncommercial food service segments and describe factors that distinguish noncommercial food service operation from commercial ones. (K)
12. I can list the characteristics and trends in airline, military, elementary and secondary schools, colleges and universities, healthcare, business, and industry food service. (K)
13. I can plan a recreational experience for a person that improves the cultural, moral, and spiritual well-being of a person. (P,K,S)
14. I can distinguish between government-sponsored recreation, national parks, theme parks and clubs, and non commercial recreation for campus, armed forces, employees, and special populations. (K)
15. I can determine the difference between types of meetings, conventions, and expositions. (K)
16. I can outline the elements of marketing, sales, human resources, and culture that are common to all segments of the hospitality industry. (K.R)
17. I can present an overview of the characteristics and attributes of leaders, leadership styles, social responsibilities, and moral and ethical behavior. (P,K.R)
18. I can develop a philosophy, culture, mission, goals, objectives that expresses my feeling about the corporate model that could be incorporated into a tourism related business. (K, S,P)
19. I can compare and contrast methods of travel: car, train cruise ship, or plane. (K)
20. I can examine the development, growth, and future of the hospitality and tourism industry. (R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can use computer-based technology. (K, S)
2. I can write technical communications. (K, S, P)
3. I can communicate written information. (K, S, P)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can establish criteria for purchasing products and services. (K, R)
2. I can explain material control and product inventories necessary to meet customer and business requirements. (K, R, P)
3. I can identify factors that impact developing a budget including controllable expenses, restaurant accounting, operating ratios, and controls. (K, P, S, R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can examine cultural diversity and languages and implement these factors in my work environment. (K, R)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (K,S,R)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (K,S)
3. I can present my unique project to an authentic audience. (K,S,R,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (K)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (KS,P)

Hospitality, Tourism, and Recreation (HTR) 2

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisites: Successful completion of HTR 1 with a grade of “C” or higher, and/or Consent of Instructor

Course Description:

Hospitality, Tourism, and Recreation 2 builds upon skills developed in HTRE 1. This course encourages students to develop a deeper understanding of the exciting and diverse hospitality and tourism industry. While providing an understanding of the scope and complexity of the industry, the course covers key hospitality issues, management definitions, and career opportunities available in restaurants, hotels, theme venues, entertainment centers, cruise lines, and countless other hospitality and tourism businesses.

Topics:

- Business essentials
- Finance and measurement
- Human resource management
- Marketing
- Event planning
- Technology and future trends
- International travel
- Travel with children
- Group activity planning
- Maps and GPS
- Travel agencies
- First aid and safety
- Super host certification
- Construction of a business plan

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (*S*)
2. I can formulate tentative career goals. (*R*)

3. I can evaluate approaches for meeting my goals. (*R*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (K,P)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can construct a comprehensive business plan, which will include financial, guest service strategies, human resource, marketing, event planning, and crisis response data. (K,S,R,P)
2. I can explain each of the four steps and conduct a SWOT analysis. (K)
3. I can differentiate the primary selection, hiring, training, and retention processes and formulate methods for applying the most effective procedures in class-based scenarios. (K,S)
4. I can use demographic data to identify target markets and align strategy. (K,S,R)
5. I can examine market forces affecting growth in the hospitality industry. (K,S)
6. I can successfully demonstrate skills related to industry standards and certifications. (S,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can examine the impact of and determine appropriate application of technological advances and new trends in the hospitality industry. (K,S,R)
2. I can explore technological advances driving efficiency and competition. (K,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can integrate and apply concepts and theories in the hospitality industry to derive valid solutions to in-class case studies and scenario-based activities. (K,S,R)
2. I can analyze operational issues and propose recommendations. (K,S,R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can discuss the hospitality manager's role in creating a safe and secure environment. (K)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can research a hospitality provider and conduct an organizational analysis. (K,S,R)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Prep for Life

Grades 11-12 at Hellgate, Seeley-Swan, and Sentinel

Grade 12 at Big Sky

Credit: One Year (Elective)

Prerequisites: None

Course Description:

In this course students will gain knowledge of personal and community resources, family finances, and career skills. This course will meet the 21st Century needs and wants of individuals and families throughout the family life cycle, considering a broad range of economic, social, cultural, technological, environmental, and leadership factors. Students will engage in a variety of learning experiences, including hands-on applications, speakers, field trips, projects, as well as daily assignments and assessments.

Topics:

- Personal Growth
- Financial Literacy
- Career Choices and Employment Skills
- Conditions Affecting Individuals and Families
- Interpersonal Relationships

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (*P*)
2. I can formulate tentative career goals. (*R*)
3. I can evaluate approaches for meeting my goals. (*R*)
4. I can analyze potential career choices to determine the knowledge, skills, and attitudes associated with careers. (*R*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*R*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S*)
5. I can develop a system for keeping and using financial records and legal documents. (*P*)
6. I can describe and analyze how to use different payments including banking services. (*R*)
7. I can develop a personal or family financial plan. (*P*)
8. I can identify personal and family goals related to credit and debt. (*K*)
9. I can outline responsibilities as related to obtaining and managing personal and family credit. (*R*)
10. I can identify the costs and benefits of various types of credit. (*K*)
11. I can compare types of loans use to finance a variety of wants and needs. (*R*)
12. I can describe the ways to avoid or correct debt problems. (*K*)
13. I can develop a plan for spending and saving. (*P*)
14. I can explain how interest rates, taxes and fees affect the return on savings and investment. (*K*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can investigate how agencies that regulate financial markets protect consumers. (*S*)
3. I can describe alternatives for researching, purchasing and utilizing saving and investment products. (*K*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*S*)
2. I can apply leadership styles in group activities and projects. (*S*)
3. I can list the steps in the decision making process. (*K*)
4. I can implement the decision making process. (*K*)
5. I can demonstrate teamwork skills in school, community and workplace settings. (*S*)
6. I can demonstrate leadership skills and abilities in school, workplace and community settings. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can develop personal and work related goals. (*P*)
2. I can describe ethical behavior in the workplace. (*K*)
3. I can demonstrate work ethics and professionalism. (*S*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*P*)
2. I can identify strategies that promote growth and development across the life span. (*K*)
3. I can analyze conditions that influence human growth and development. (*R*)
4. I can distinguish between wants and needs. (*R*)
5. I can explain how values influence decisions. (*K*)
6. I can identify personal values to guide my life. (*K*)
7. I can identify my legal rights and responsibilities. (*K*)
8. I can identify and put into place consumer rights and responsibilities. (*K*)
9. I can investigate savings and investing options. (*S*)
10. I can demonstrate independent living skills. (*S*)
11. I can identify conditions affecting individuals and families (including but not limited to: stress management, wellness, addiction, abuse, interpersonal relationships, aging, parenting decisions, and death). (*K*)
12. I can identify and connect with local resources to investigate assistance for conditions affecting individuals and families (including but not limited to: stress management, wellness, addiction, abuse, interpersonal relationships, aging, parenting decisions, and death). (*K*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K*)
2. I can identify traits of a positive self concept. (*K*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*P*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can identify my needs, and voice them. (*K*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply consumer skills to financial decisions. (*S*)
2. I can explain the purpose of a credit record and identify borrowers' credit report rights. (*K*)
3. I can summarize major consumer credit laws. (*R*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can differentiate appropriate use of cell phone technology. (*R*)
3. I can identify appropriate online tools for job searching. (*K*)
2. I can explain and identify the dangers of identity theft, and technology used to safeguard one's identity. (*K*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can demonstrate the use of online tools for job searching. (*S*)
2. I can select a word processing program to create a resume. (*K*)
3. I can select money management software to create and maintain a budget. (*K*)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can identify the protocol for reporting a stolen identity. (*K*)
2. I can demonstrate how to revise my email and cell phone ring-back to be appropriate for job seeking. (*S*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can identify a variety of financial institutions using the Internet. (*K*)
2. I can apply mathematical skills to figure pay, based on anticipated lifestyle choices. (*S*)
3. I can demonstrate how to distribute my resume using a variety of technological applications. (*S*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S)
3. I can develop a professional resume and cover letter. (P)
4. I can demonstrate job seeking and job keeping skills. (S)
5. I can demonstrate professional work clothing. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (S)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Family and Consumer Science (FACS)

Independent Study/Work Experience

Grades 11 & 12

Units of Credit: One Semester (Elective)

Prerequisites: Consent of Instructor and 2-3 Family & Consumer Science courses in logical sequence

Course Description:

Rapid advances in technology, business, health, science, trades, and industry have created new career opportunities and demands. Career and Technical Education courses provide the knowledge, skills, and technologies required for employment in several broad systems. Students need to develop knowledge of the concepts and skills related to individual career concentrations in order to apply them to personal/career development. Career and Technical Education depends on and supports the integration of academic, career, and technology knowledge and skills. To prepare students for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepares students for success.

In collaboration with the teacher and a related professional mentor, students will develop a school and/or workplace-based learning activity that provides an in-depth study of at least one aspect of a selected business or industry.

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can perform roles related to my chosen field during my work experience. (S)
2. I can practice positive service skills. (S)
3. I can demonstrate advanced skills related to my study through creation of a project. (S,P)
4. I can manage the time and resources I need to complete my project. (K,S)
5. I can analyze how this project related to my future plans. (R)
6. I can incorporate communication, math, and science knowledge and skills into my project. (S,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate safe use of technology during my work experience/independent study, as defined by my mentor. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can present my project or independent study results using appropriate tools. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can follow directions given by my mentor to appropriately utilize tools associated with my study. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can explain how my school courses relate to my independent study/work experience. (K,R)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic produce within budget constraints. (S,R,P)

Health Science 1

Grades 10-12

Credit Unit: One Semester (Elective)

Prerequisite: Successful completion of Health Enhancement 1

Course Description:

Health Science 1 is an introductory course that exposes students to the variety of opportunities available within the health care industry. Health care professionals from our community will regularly visit the class to expose students to a variety of health care careers. Students are provided with experiences in several career pathways along with information and knowledge related to the health care industry as a whole.

Topics:

- History of health care
- Understanding health care systems
- Finding the right occupation
- Employability and leadership
- Understanding legal obligations
- Medical ethics
- Wellness
- Teamwork
- Effective communication
- Medical terminology

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (*S*)
2. I can formulate tentative career goals. (*R*)
3. I can evaluate approaches for meeting my goals. (*R*)
4. I can classify personal traits or attitudes desirable in a member of the healthcare team. (*K,R*)
5. I can summarize basic professional standards of healthcare workers as they apply to hygiene, dress, language, confidentiality and behavior (i.e. courtesy and self-introductions). (*K*)
6. I can apply employability skills in healthcare. (*K*)
7. I can exemplify professional characteristics. (*K*)

8. I can engage in continuous self-assessment and career goal modification for personal and professional growth. *(K,R)*
9. I can compare careers within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services, or biotechnology research and development). *(K,R)*
10. I can recognize levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential. *(K)*
11. I can develop components of a personal portfolio. *(K,S)*
12. I can demonstrate process for obtaining employment. *(K)*

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(R,S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can stay within a fixed budget. *(S,P)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(R)*
2. I can prioritize resources, equipment and tasks. *(R)*
3. I can reflect upon completion. *(K)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. *(S)*

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can understand roles and responsibilities of team members. (*K*)
4. I can recognize characteristics of effective teams. (*K*)
5. I can classify the roles and responsibilities of various health care team members. (*K*)
6. I can recognize methods for building positive team relationships. (*K*)
7. I can analyze attributes and attitudes of an effective leader. (*K,R*)
8. I can recognize factors and situations that may lead to conflict. (*K*)
9. I can apply effective techniques for managing team conflict. (*K*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can differentiate between morality and ethics. (*K,R*)
5. I can compare personal, professional, and organizational ethics. (*K,R*)
6. I can recognize ethical issues and their implications related to healthcare. (*K*)
7. I can differentiate between ethical and legal issues including confidentiality. (*K,R*)
8. I can apply ethical behaviors in healthcare. (*K*)
9. I can apply procedures for reporting activities and behaviors that affect health, safety, and welfare of others. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S,P*)

3. I can work to understand diverse points of view. (*P*)
4. I can demonstrate respectful and empathetic interactions with diverse age, cultural, economic, ethnic, and religious groups in various settings. (*K,R,S*)
5. I can understand religious and cultural values as they impact healthcare. (*K,R*)
6. I can demonstrate respectful and empathetic interactions with diverse age, cultural, economic, ethnic, and religious groups. (*K,R,S*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*K,S*)
2. I can effectively communicate verbally through collaborative projects. (*K,S*)
3. I can develop quality written professional communications. (*S,P*)
4. I can interpret verbal and nonverbal communication. (*K,S,R*)
5. I can recognize barriers to communication. (*K,R*)
6. I can report relevant information in order of occurrence. (*K*)
7. I can report subjective and objective information. (*K,R*)
8. I can recognize elements of communication using a sender-receiver model. (*K*)
9. I can apply speaking and active listening skills. (*K,S,P*)
10. I can analyze communications for appropriate response and feedback. (*K,R*)
11. I can recognize elements of written and electronic communication (spelling, grammar, formatting and confidentiality). (*K*)
12. I can organize technical information and summaries for planning written documents. (*K,R*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use roots, prefixes, and suffixes to communicate information. (*K*)
2. I can use medical abbreviations to communicate information. (*K*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate methods of fire prevention in the health care setting. (*S*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify tools and equipment used in health care. (*K*)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can demonstrate the proper way to use and store tools and equipment in healthcare. (*S*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can create a project using a PowerPoint presentation, research paper, poster, pamphlets, or brochure. (*P*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K,S*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)
4. I can analyze legal responsibilities and limitations. (*K*)
5. I can explain practices that could result in malpractice, liability, and/or negligence. (*K*)
6. I can apply procedures for accurate documentation and record keeping. (*K,R*)
7. I can interpret healthcare facility policies and procedures. (*K,R*)
8. I can apply standards for the Health Insurance Portability and Accountability Act (HIPAA). (*K,R*)
9. I can recognize common threats to confidentiality. (*K,R*)
10. I can summarize the Patient's Bill of Rights. (*K*)
11. I can understand informed consent. (*K*)
12. I can compare licensure, certification, registration, and legislated scope of practice. (*K,R*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)
3. I can describe responsibilities of consumers within the healthcare system. (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)
2. I can discuss common methods of payment for healthcare. (*K*)

Health Science 2

Grades 11-12

Units of Credit: One Semester (Elective)

Prerequisites: Health Science 1

Course Description:

Health Science 2 exposes students to a variety of opportunities available within the health care industry. Emphasis will be placed on developing connections between students and the health care community. Health Science Education advances the understanding of the role of health care in society and lays the groundwork for a well-prepared health care workforce.

Topics:

- Medical math
- Measurement and the scientific process
- Body systems
- Human growth and development
- Mental health
- Nutrition
- Controlling infection
- Measuring vital signs and other clinical skill
- Therapeutic techniques and sports medicine
- Medical assisting and laboratory skills
- Patient and employee safety
- Responsibilities of a dental assistant

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)**Benchmark 1:**

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.**Benchmark 1:**

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (K,P)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can classify the basic structural and functional organization including chemical, cellular, tissue, and organ systems. (K)
2. I can recognize body planes, directional terms, quadrants, and cavities. (K)
3. I can analyze basic structure and function of the human body. (R)
4. I can compare the structure and function of the human body across the life span. (R)
5. I can apply behaviors that promote health and wellness. (S)
6. I can describe strategies for prevention of diseases including health screenings and examinations. (K)
7. I can apply practices that promote prevention of disease and injury. (S)
8. I can discuss complementary and alternative health practices. (S)
9. I can apply procedures for measuring and recording vital signs. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can apply infection control procedures including standard precautions. (K,S,R)

2. I can describe methods of controlling growth of microorganisms. (K)
3. I can apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations (including standard precautions). (K)
4. I can apply principles of body mechanics and ergonomics. (K,S)
5. I can apply proper use of personal protective equipment (PPE). (K)
6. I can evaluate environment to recognize safe and unsafe working conditions. (K,R)
7. I can apply safety techniques to prevent accidents and to maintain a safe work environment. (K)
8. I can demonstrate methods of fire prevention in the health care setting. (K)
9. I can recognize Materials Safety Data Sheets (MSDS). (K)
10. I can comply with safety signs, symbols, and labels. (K)
11. I can understand implications of hazardous materials. (K,R)
12. I can apply safety principles within given environments. (K,R)
13. I can apply appropriate safety practices as related to high-risk behavior. (K,R)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify tools and equipment used in healthcare. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can demonstrate the proper way to use and store tools and equipment in healthcare. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can apply mathematical computations related to healthcare procedures (metric and household, conversions and measurements). (S)
2. I can apply mathematical principles to conversion equations as used in the healthcare system
3. I can record time using 24-hour clock. (S)
4. I can apply mathematical principles to problems involving dosage calculations and applied mathematical concepts. (S)
5. I can analyze diagrams, charts, graphs, and tables to interpret healthcare data. (R)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (*Type*):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (*Type*):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Health Science 3

Grades 11-12

Units of Credit: One Semester (Elective)

Prerequisites: Health Science 2

Course Description:

Health Science 3 is designed to integrate the skills and knowledge acquired in Health Science 1 and Health Science 2 and apply them in real-life health care settings. The emphasis of this course is to provide students with as many hands-on opportunities as possible and to connect students to the medical community. Job shadows will be available throughout the semester.

Topics:

- Diseases and disorders
- Healthcare Delivery Systems
- Information Technology
- CPR and first aid
- Current health care issues

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 1:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 1:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can describe common diseases and disorders of each body system (prevention, pathology, diagnosis, and treatment). (*K*)
2. I can recognize emerging diseases and disorders. (*K*)
3. I can discuss complementary/alternative health practices as they relate to disease prevention and treatment. (*S*)
4. I can analyze legal responsibilities and limitations. (*R*)
5. I can explain practices that could result in malpractice, liability, and/or negligence. (*K*)
6. I can apply standards for Health Insurance Portability and Accountability Act (HIPAA). (*S*)
7. I can recognize common threats to confidentiality. (*K*)
8. I can summarize the Patient's Bill of Rights. (*K*)
9. I can understand informed consent. (*K*)
10. I can compare licensure, certification, registration, and legislated scope of practice. (*R*)
11. I can apply skills to obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid. (*S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can communicate using technology (fax, e-mail, and Internet) to access and distribute data and other information. (*K,S*)
2. I can recognize technology applications in healthcare. (*K*)
3. I can execute the use of software, hardware, and internet. (*S*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify tools and equipment used in healthcare. (*K*)

Benchmark 1:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can demonstrate the proper way to use and store tools and equipment in healthcare. (*S*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can understand healthcare delivery system (public, private, government, and non-profit). (*K*)
2. I can explain factors influencing healthcare delivery systems. (*K*)
3. I can describe responsibilities of consumers within the healthcare system. (*K*)
4. I can explain the impact of emerging issues such as technology, epidemiology, bioethics, and socioeconomics on healthcare delivery systems. (*K*)
5. I can discuss common methods of payment for healthcare. (*S*)
6. I can apply procedures for accurate documentation and record keeping. (*S*)
7. I can interpret healthcare facility policies and procedures. (*R*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

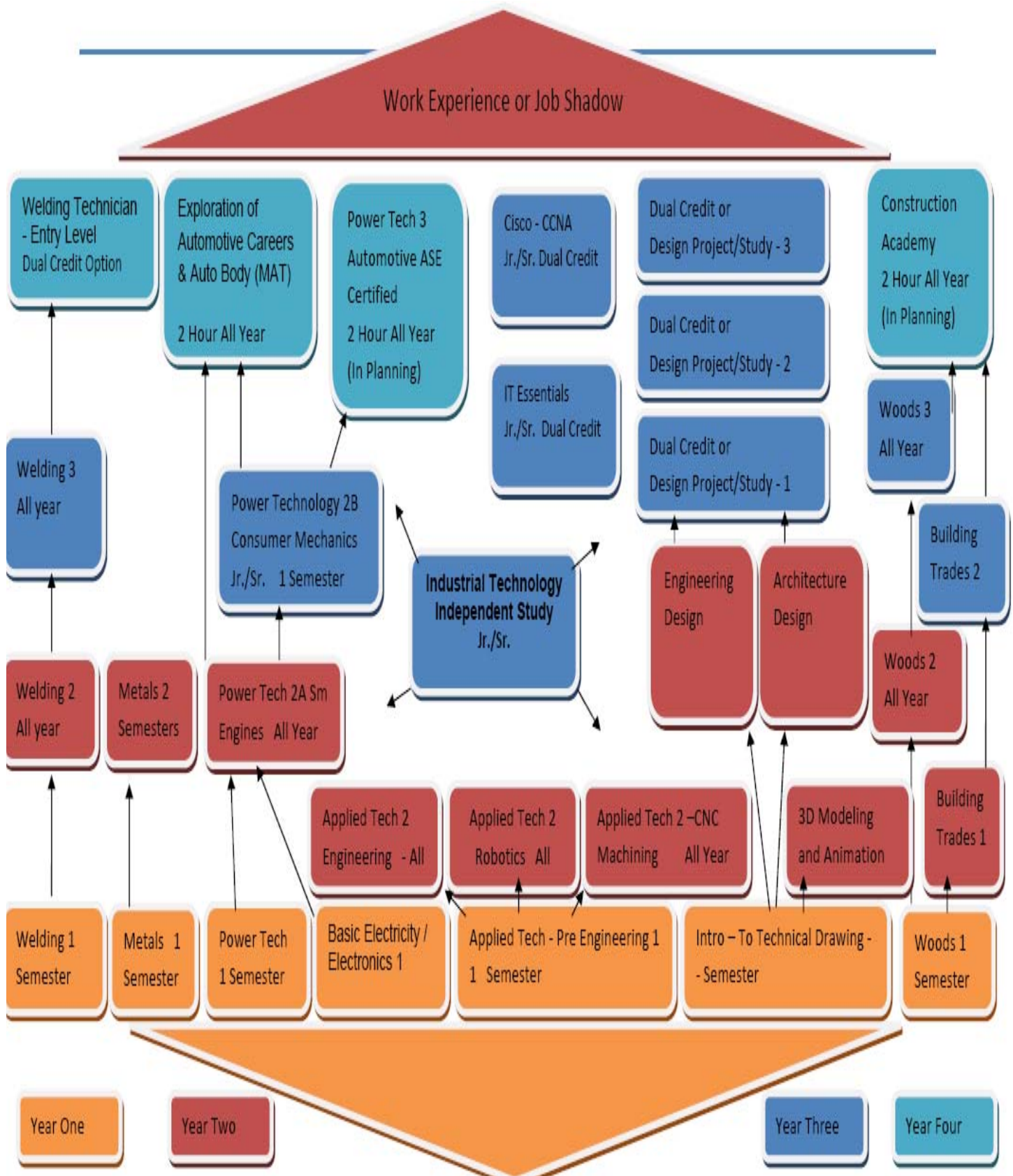
Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

INDUSTRIAL TECHNOLOGY PATHWAYS



3-D Modeling & Animation

Grades 10 -12

Units of Credit: One Year (Elective)

Prerequisites: Introduction to Technical Design or Introduction to Art

Course Description:

3-D Modeling & Animation is oriented for future animators, film producers, and game designers. Students explore all facets of what it takes to get 3-D models moving across the screen. Students discover for themselves how technology can take a project from concept to a completed digital story. This course provides students with a working knowledge of interpreting and creating 3-dimensional models and movement. Fundamentals will be covered through instruction, class discussion, Internet research, text/workbook, and hands-on projects. The class will culminate with an instructor-approved project. Students develop and use a variety of skills including assessing, organizing, problem solving, and analyzing in the application of drafting and design techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, demonstrations, and performance tasks. Students are assessed by observation, performance on tests, quizzes, assigned tasks and projects, and by the quality of work produced.

Topics:

- Spline, Box, and Point Edit Modeling
- Character Rigging and Posing
- Bone Hierarchies and an introduction to Inverse/Forward Kinematics
- Basic Texturing Properties – Transparency, Opacity, Diffusion, Luminosity, and Translucency Image Mapping, Uvs, Gradient and Procedural Textures
- Basic Lighting and Light Properties – Caustics, Refractions, Reflection, Specularity Mapping
- Shadows, Gobos, Projections, Ray Tracing
- Light Volumetrics and Dynamics
- 3 Point Lighting and Advanced Lighting Plans
- Animation Techniques – Keyframing, Morphing, Deformations
- Motion Path Studies
- Dope Tracks and Dope Sheets

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Student acquire and demonstrate current current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply accepted lettering practices and styles used in manufacturing graphics. (K,S,R)
2. I can use sketching techniques to develop drawing format and graphic problem solving. (P,R,S)
3. I can develop computer 3D models, and pictorials drawings. (S)
4. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (R,S)
5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can operate a computer for an extended amount of time using ergonomic techniques. (S)
2. I can operate a computer without divulging important security, personal and identity information. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can detail objects accurately through the principles of shape and size description. (S)
2. I can select goal-relevant activities, allocate time, and prepare and follow schedules. (R,S)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
4. I can apply measurement skills to solve problems. (K,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can make and use appropriate symbols, pictures, diagrams, scaled drawings and models to simplify real life situations and solve problems (Science). (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice accepted standards, symbols, and conventions. (K,S)
2. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
3. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
4. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (K,R,S)
5. I can locate and demonstrate written technical information. (K,S)
6. I can use knowledge of geometry to solve problems. (K,S)
7. I can apply mathematical reasoning skills to solve problems. (R,S)
8. I can employ graphs, tables, maps and illustrations in making arguments and drawing conclusions (Science). (R,S)
9. I can use computers to organize data generated models and to do research for problem solving. (Science). (R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Applied Technology 1

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Overview:

In this course, students gain knowledge and skills in the area of pre-engineering and technology. Students learn to use tools and equipment such as hand tools, band saws, machine sanders, drilling machines, and computer controlled manufacturing machines. This course will require students to apply general math and science concepts to basic problem solving or pre-engineering activities. Some of these activities include building a lego vehicle for speed and power, making and testing air powered rockets, electric motors, and designing, building and destructively testing small wood bridges. Students also create small projects using basic hand and machine tools as well as computer aided design and manufacturing (CAD/CAM) equipment. This is a fun class well suited for aspiring young engineers or for those just interested in how things work. Students are assessed by observing and measuring performance on tests, quizzes, assigned tasks and projects and by the quality of work produced.

Topics:

- Introduction to Technology
- Structural Systems
- Mechanical Systems
- Computer Aided Design and Manufacturing Technology
- Electricity and Magnetism
- Materials and Processes
- Aerodynamics and Aeronautics
- Engineering design process
- General safety
- Measurement systems

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

4. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can work as part of a team to design, build, analyze, and test group projects. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can complete a project by given project completion deadlines. (*S,R*)
5. I can manage my time so that I can complete assignments and projects by using my time wisely each and every class period. (*S,R*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use the English measurement system to measure to the nearest 1/16th of an inch. (*K,S*)
2. I can interpret a technical drawing to create a small project. (*R,P*)
3. I can use a computer aided design and manufacturing program (CAD/CAM) such as Mastercam to create and manufacture a project design. (*K,R,P*)
4. I can apply a problem solving model to assist with solving engineering type challenge projects. (*S,P*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can safely operate a band saw. (*S*)
2. I can safely operate drilling machines. (*S*)
3. I can safely operate sanding machines. (*S*)
4. I can safely operate a computer numeric control milling machine. (*S*)
5. I can identify and use appropriate OSHA required safety equipment necessary when operating various tools and machines. (*K*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select the correct tools and equipment to most efficiently solve problems I encounter. (*K*)
2. I can use tools, machines, and equipment to construct small projects. (*P,R,S*)
3. I can choose how to solve problems by considering the tools, equipment and resources available to successfully complete projects within the given guidelines. (*K,R*)
4. I can use tools, machines, and equipment to manufacture or produce solutions to problems. (*S*)
5. I can use the computer as a problem-solving and design tool. (*P*)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can recognize when tools and equipment are not functionally properly. (*K*)
2. I can assist in basic maintenance and repair of facility equipment. (*K*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use a computer search engine such as Google to research project design ideas. (*K*)
2. I can apply the Cartesian (XYZ) coordinate system to solve computer aided design and manufacturing problems. (*K,S*)
3. I can use tools to take measurements and convert imperial / metric measurement units. (*S*)
4. I can apply mathematical and scientific formulas to calculate the design efficiency of various projects. (*S*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)
3. I can read, apply and critically analyze and apply specific rules for each problem-solving activity. (*R,S*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Applied Technology 2: CNC Machining

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Applied Technology I

Course Description:

In this course, students build upon the knowledge and skills gained in Applied Technology 1. The focus of this course is to learn about the fundamentals of Computer Numeric Control (CNC) Machining. Students will learn how to design a part with the use of computer aided design and machining (CAD/CAM) software. Once parts are designed, they are machined using computer controlled milling machines and lathes. Projects are created based on the manufacture of parts using CNC machining technology. This course will require students to apply general math and science concepts to advanced problem solving and machining activities. Students will be assessed through observation, performance on tests, quizzes, assigned tasks and projects and by the quality of work produced.

Topics:

- CAD/CAM software
- CNC milling machines
- CNC lathes
- Application of basic geometry to part design
- Troubleshooting and problem solving
- Manufacturing materials and processes
- Measurement and layout tools
- Basic hand tools
- Interpretation of engineering drawings

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can work as part of a team to design, build, analyze, and test group projects. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can complete a project by given project completion deadlines. (*K*)
5. I can manage my time so that I can complete assignments and projects by using my time wisely each and every class period. (*R*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use the English measurement system to measure to the nearest 1/16th of an inch. (*K,S*)
2. I can interpret a technical drawing to create a small project. (*R*)
3. I can create a technical drawing of a project. (*P*)
4. I can convert fractions to decimal equivalents. (*K*)
5. I can convert decimal values to nearest fractional equivalent. (*K*)
6. I can identify points using the Cartesian coordinate system. (*K*)
7. I can calculate correct speeds and feeds for CNC machining. (*S*)
8. I can create a plan of operation and manually write programs for CNC mills. (*K,R,S*)
9. I can create a plan of operation and manually write programs for CNC lathes. (*K,R,S*)

10. I can use a CAD-CAM system to create a drawing for a part, and create a machine program for that part. Load it on to a controller and take all necessary steps to create the part. (P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can safely operate a band saw. (S)
2. I can safely operate drilling machines. (S)
3. I can safely operate sanding machines. (S)
4. I can safely operate a CNC milling machine. (S)
5. I can safely operate a CNC lathe. (S)
6. I can utilize correct techniques for proper handling of hazardous materials. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select the correct tools and equipment to most efficiently solve problems I encounter. (K)
2. I can use tools, machines, and equipment to construct small projects. (R,S,P)
3. I can creatively solve problems by considering the tools, equipment and resources available to successfully complete projects within the given guidelines. (R)
4. I can calculate the number and depths of roughing and finish cuts for milling and turning. (K,R,S)
5. I can select the correct tools to check for part squareness. (K)
6. I can select the correct tools to check part dimensions for accuracy. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can recognize when tools and equipment are not functionally properly. (K,R)
2. I can assist in basic maintenance and repair of facility equipment. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use a computer search engine such as Google to research project design ideas. (K)
2. I can use computer based resources to assist with CAD/CAM learning activities. (S)
3. I can use tools to take measurements and convert imperial / metric measurement units. (R,S)
4. I can use printed training manuals to assist with CAD/CAM learning activities. (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)
3. I can read, apply, and critically analyze and apply specific rules for each problem-solving activity. (S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)
2. I can identify and use appropriate OSHA required safety equipment necessary when operating various tools and machines. (*K,S*)

Applied Technology 2: Robotics

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Applied Technology I

Course Description:

In this course, students build upon the knowledge and skills gained in Applied Technology 1. The focus of this course is to learn about the fundamentals of robotics. Students will learn what makes robots work, and why they are so widely used in all kinds of seemingly unrelated areas. Robots are designed to accomplish some type of complex task such as reacting to light, motion, color, sound, following a line, or anything else the mind can imagine. Robots are fabricated with metal parts, plastic parts, electronic components, lots of wires, wheels, gears, and many fasteners. They are programmed using computer software such as Labview, C+, Java, and Lego Mindstorms NXT. This course will require students to apply general math and science concepts to advanced problem solving and pre-engineering activities. Some of these activities will include creating a robotic arm, radio controlled “battlebots”, small programmable robots, and a variety of smaller projects aimed at teaching basic fabrication skills. Students are assessed through observation, performance on tests, quizzes, assigned tasks and projects and by the quality of work produced.

Topics:

- Programming
- Electronics
- Drive systems
- Metal fabrication
- Troubleshooting and problem solving
- Mechanical systems
- Pneumatic and hydraulic systems
- Sensors and control systems

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

4. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can work as part of a team to design, build, analyze, and test group projects. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can complete a project by given project completion deadlines. (*K*)
5. I can manage my time so that I can complete assignments and projects by using my time wisely each and every class period. (*R*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use the English measurement system to measure to the nearest 1/16th of an inch. (*K,S*)
2. I can interpret a technical drawing to create a small project. (*R*)
3. I can create a technical drawing of a project. (*P*)
3. I can use computer programming software such as Labview or Java to program a robot to execute specified tasks. (*K,R*)

4. I can use a problem solving model to assist with solving engineering type challenge projects. (K)
5. I can design and construct a pneumatic system appropriate for the required task to operate a robotic appendage. (K,R,S,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can safely operate a band saw. (S)
2. I can safely operate drilling machines. (S)
3. I can safely operate sanding machines. (S)
4. I can safely work with electronic components. (S)
5. I can safely work with pneumatic systems (K,R,S)
6. I can safely work with hydraulic systems. (K,R,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select the correct tools and equipment to most efficiently solve problems I encounter. (K,R)
2. I can use tools, machines, and equipment to construct small projects. (K,R,S)
3. I can creatively solve problems by considering the tools, equipment and resources available to successfully complete projects within the given guidelines. (R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can recognize when tools and equipment are not functionally properly. (K,R)
2. I can assist in basic maintenance and repair of facility equipment. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use a computer search engine such as Google to research project design ideas. (K)
2. I can use internet resources to aid in the use of applying motion sensors. (S)
3. I can use tools to take measurements and convert imperial / metric measurement units. (S)
4. I can use mathematical and scientific formulas to calculate the design robotic mechanical systems. (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)
3. I can read, apply, and critically analyze and apply specific rules for each problem-solving activity. (R,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)
2. I can identify and use appropriate OSHA required safety equipment necessary when operating various tools and machines. (*R,S*)

Applied Technology 2: Engineering Challenges

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Applied Technology I

Course Description:

In this course, students will build upon the knowledge and skills gained in Applied Technology 1. The focus of this course will be to learn about the fundamentals of engineering. Students will apply fundamental engineering concepts to a series of engineering challenges presented by the instructor. Students will learn about structural systems, mechanical systems, electrical systems, alternative energy sources, and aerodynamics. This course will require students to apply general math and science concepts to advanced problem solving and fabrication activities. Students will work on projects such as catapults, cranes, airplanes, rockets, magnetic levitation vehicles, electrical circuits, and solar powered vehicles. Students will be assessed through observation, performance on tests, quizzes, assigned tasks and projects and by the quality of work produced.

Topics:

- Structural systems
- Mechanical systems
- Materials and processes
- Electricity and magnetism
- Aerodynamics and Aeronautics
- Engineering design process
- Alternative energies
- General safety
- Troubleshooting and problem solving
- Manufacturing materials and processes
- Measurement and layout tools
- Basic hand tools

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)

3. I can evaluate approaches for meeting my goals. (*R*)
4. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (*K,S*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can work as part of a team to design, build, analyze, and test group projects. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can complete a project by given project completion deadlines. (*K*)
5. I can manage my time so that I can complete assignments and projects by using my time wisely each and every class period. (*S*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use the English measurement system to measure to the nearest 1/16th of an inch. (*K,S*)
2. I can interpret a technical drawing to create a small project. (*R*)
3. I can create a technical drawing of a project. (*P*)
4. I can convert fractions to decimal equivalents. (*K*)
5. I can convert decimal values to nearest fractional equivalent. (*K*)

6. I can identify basic structural components. (*K*)
7. I can explain the types of forces placed on basic structural components. (*K*)
8. I can identify electronic components. (*K*)
9. I can explain the purpose of various electronic components. (*K*)
10. I can construct a functioning electronic circuit. (*P*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can safely operate a band saw. (*S*)
2. I can safely operate drilling machines. (*S*)
3. I can safely operate sanding machines. (*S*)
4. I can utilize correct techniques for proper handling of hazardous materials. (*K*)
5. I can safely work with electronic components. (*S*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select the correct tools and equipment to most efficiently solve problems I encounter. (*K*)
2. I can use tools, machines, and equipment to construct projects. (*R,S,P*)
3. I can creatively solve problems by considering the tools, equipment and resources available to successfully complete projects within the given guidelines. (*R*)
4. I can identify the correct mechanical fasteners to use when constructing various projects. (*K*)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can recognize when tools and equipment are not functionally properly. (*K,R*)
2. I can assist in basic maintenance and repair of facility equipment. (*S*)
3. I can use an electrical multimeter to measure electrical components function as an aid in troubleshooting electronic circuits. (*S*)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use a computer search engine such as Google to research project design ideas. (*K*)
2. I can use tools to take measurements and convert imperial / metric measurement units. (*R,S*)
3. I can apply information related to aerodynamics and aeronautics to create a small functional airplane. (*P*)
4. I can apply information related to aerodynamics and aeronautics to create a small functional rocket. (*P*)
5. I can design a vehicle which can most efficiently use the sun's energy. (*P*)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)
3. I can read, apply, and critically analyze and apply specific rules for each problem-solving activity. (R,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)
2. I can identify and use appropriate OSHA required safety equipment necessary when operating various tools and machines. (K)

Basic Electricity/Electronics 1

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Overview:

In this course, students gain knowledge and skills in the area of Basic Electricity and Electronics Technology. This program includes basic AC & DC circuits, electronic devices & circuits, schematic literacy, digital electronics, microprocessors, fiber optics, analog and digital communications systems and microwave technology. A solid base of communications and information management, technical mathematics and algebra, as well industrial safety and tool systems will be developed through direct application. Leadership and professionalism will be developed through SkillsUSA-VICA and the Professional Development Program. Students are assessed by observing and measuring performance on tests, quizzes, assigned tasks and projects and by the quality of work produced.

Topics:

- Introduction to Technology
- Science of Electricity and Electronics
- Basic Instruments and Measurements
- Energy
- Sources of Electricity
- Series Circuits
- Parallel Circuits
- Series-Parallel Circuits
- Magnetism
- Generators
- DC Motors
- Inductance and RL Circuits
- Capacitance and RC Circuits
- Tuned Circuits and RCL Networks
- Introduction to Semiconductors & Power Supplies
- Tubes, Transistors, and Amplifiers
- Integrated Circuits
- Intro to Basic Electrical Circuit Material
- Digital Circuits
- Oscillators
- AM and FM Radio Communications
- Television and Video Display Units
- Fiber Optics and Lasers
- Introduction to PCs
- Micro-controllers
- Career Opportunities in Electronics

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. *(S)*
2. I can formulate tentative career goals. *(R)*
3. I can evaluate approaches for meeting my goals. *(R)*
4. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. *(S)*

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*
3. I can demonstrate employ-ability and personal management skills relative to careers through the Professional Development Program. *(S)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(R,S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can stay within a fixed budget. *(S,P)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(R)*
2. I can prioritize resources, equipment and tasks. *(R)*
3. I can reflect upon completion. *(K)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. *(S)*

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. *(K)*
2. I can maintain the tools of the trade. *(S)*
3. I can maximize the use of my resources. *(S)*

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can work as part of a team to design, build, analyze, and test group projects. (*S*)
4. I can develop personal and professional leadership skills through participation in the SkillsUSA-VICA student organization activities. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can complete a project by given project completion deadlines. (*K*)
5. I can manage my time so that I can complete assignments and projects by using my time wisely each and every class period. (*R,S*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use the English measurement system to measure to the nearest 1/16th of an inch. (K,S)
2. I can develop competencies and skills in the area of electronic drafting/and the use of schematics. (S)
3. I can interpret a technical drawing to create a small project. (R,S)
4. I can develop knowledge and skills with the applications of microprocessors and fiber optics. (S)
5. I can understand and apply knowledge of direct current circuits and alternating current circuits as related to communication electronic technology. (K,R,S)
6. I can understand and apply knowledge of electronic devices and components in the context of communication electronics. (K,R,S)
7. I can understand and apply knowledge of RF energy including ionospheric propagation and microwave systems. (R,K,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can develop competencies and skills with digital techniques. (S)
2. I can develop and demonstrate knowledge of personal electromagnetic field safety through shielding and good engineering. (S)
3. I can develop competencies in the safe and efficient use of the tools, machines, materials, and processes of communication electronic technology. (S)
4. I can safely operate a computer numeric control milling machine. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select the correct tools and equipment to most efficiently solve problems I encounter. (K,R,S)
2. I can demonstrate knowledge and understanding of service equipment and digital techniques. (K,S)
3. I can use tools, machines, and equipment to construct small projects. (K,R,S)
4. I can creatively solve problems by considering the tools, equipment and resources available to successfully complete projects within the given guidelines. (K,R,S)
5. I can develop skills necessary to work with others and solve problems. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can recognize when tools and equipment are not functionally properly. (K,R)
2. I can assist in basic maintenance and repair of facility equipment. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use a computer search engine such as Google to research project design ideas. (K)
2. I can engage in meaningful, hands-on, minds-on and conceptual based activities in the area of electronic technology. (S)
3. I can develop skills and competencies with electrical/electronics math/algebra. (K,S)
4. I can use mathematical and scientific formulas to calculate the design efficiency of

various projects. *(K,R,S)*

5. I can apply concepts from mathematics, science, and communications in the context of electronics. *(S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*
3. I can read, apply, and critically analyze and apply specific rules for each problem-solving activity. *(K,R,S)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(R)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(S,R,P)*
2. I can identify and use appropriate OSHA required safety equipment necessary when operating various tools and machines. *(K,R,S)*

Building Trades 1

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Wood Technology 1 and Drafting 1, or Consent of Instructor

Course Description:

Building Trades 1 emphasizes a combination of advanced machine operations, millwork, cabinetry, and basic residential construction methodology. Students improve their skills related to the aforementioned areas of study. The course promotes strong work ethics, communication skills, problem solving, teamwork, and continued skill development in the construction trades. This course prepares students for Building Trades 2 and/or entry-level construction positions.

Current industry standards are introduced. Students develop and use a variety of skills including safe work habits, organization, problem solving, and practical application of construction techniques. Students engage in a variety of learning activities including lecture, note taking, research, individual projects, demonstrations, and performance tasks. Student achievement is measured in a variety of ways, including written, oral, and performance tests. In addition, student projects and behavior are evaluated using criteria specified by teacher/industry standards.

Topics:

- Measurement Systems
- In-Depth Use of Portable Power Tools
- Personal Safety
- Advanced Design and Planning
- Plan and Blueprint Interpretation
- Interior Finish Work
- Building Codes, Regulations, and Zoning
- Site Work Foundation
- Systems Floor Systems
- Wall Systems Roof Systems
- Enclosing the Structure

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can use information related to woods technologies/building trades as it applies to continuing education, vocational, avocational, and career decisions. (K,S)
5. I can acquire skills and knowledge related to industry, materials, and processes in related careers. (K,S)
6. I can observe and summarize the career opportunities for a person with woodworking/construction skills. (K,S)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can build upon the principles of effective group participation and leadership related to workplace hierarchy. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can develop, read and interpret project plans and blueprints. (K,R,S)
2. I can apply critical-thinking strategies to the analysis and evaluation of project design and fabrication activities. (K,R,S)
3. I can use cross-curricular resources and knowledge to develop solutions to problems. (K,R,S)
4. I can utilize knowledge and resources to create innovative solutions and ideas. (K,R,S)
5. I can apply advanced woodworking/construction skills in a working environment. (S)
6. I can apply teamwork and cooperative learning. (S)
7. I can develop and justify organizational and time management skills as part of the problem-solving process. (K,R,S)
8. I can evaluate and apply knowledge of the concepts and skills related to health and safety in the workplace. (K,R,S)
9. I can produce work of the highest quality possible. (S)
10. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. (K,R,S)
11. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can use tools, materials, and equipment common to the field of woodworking in a safe manner. (K,R,S)
2. I can utilize correct techniques for proper handling of hazardous materials. (K,R,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select raw materials based on product application. (K)
2. I can recognize and produce acceptable finished product quality. (S)
3. I can evaluate quality and performance of a variety of systems (e.g. impact of change). (R)
4. I can practice and analyze principles of system management considering external factors and uncontrolled variables. (R,S)
5. I can manage and analyze existing systems including optimizing outputs and making in-process adjustments. (R,S)
6. I can design and evaluate a system composed of subsystems. (R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can set up tools, machines, and equipment to manufacture or produce solutions to problems. (S)
2. I can demonstrate application of appropriate woodworking/construction techniques based on knowledge of modern equipment and newly developed woodworking/construction processes. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can allocate and evaluate time, materials, facilities and resources to set and achieve

- goals. (R,S)
2. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
 3. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (R,S)
 4. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (R,S)
 5. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. (R,S)
 6. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. (R,S)
 7. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). (R,S)
 8. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
 9. I can organize process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
 10. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). (R,S)
 11. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)
 12. I can listen for, receive, interprets and recall specific details and instructions in conversations and group meetings. (R,S)
 13. I can respond appropriately during conversations, uses proper language etiquette, speaks clearly and directly, and uses correct technical vocabulary. (R,S)
 14. I can locate and demonstrate understanding of written technical and non-technical information necessary for completion of task or project. (R,S)
 15. I can use proper business or technical writing styles, take effective notes, and complete written assignments legibly, completely, and accurately. (S)
 16. I can solve linear equations. (S)
 17. I can use basic operations with real numbers. (S)
 18. I can use fractions, decimals, and percents. (S)
 19. I can use ratios and proportions. (S)
 20. I can apply coordinate geometry. (S)
 21. I can apply vocabulary and formulas of two-dimensional geometric shapes. (S)
 22. I can use vocabulary and formulas of three-dimensional geometric shapes. (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*R,S,P*)

Building Trades 2

Grades 11-12

Units of Credit: One Year (Elective)

Prerequisites: Wood Technology 3 and Building Trades 1

Course Description:

Building Trades 2 emphasizes a combination of advanced machine operations and advanced residential construction methodology. Students improve their skills related to the aforementioned areas of study. The course emphasizes work ethics, communication skills, problem solving, teamwork, and continued skill development in the construction trades. This course prepares students for entry-level construction positions.

Current industry standards are incorporated and stressed to meet current building codes and regulations relevant to the industry. Students develop and use a variety of skills including safe work habits, organization, problem solving, and practical application of construction techniques. Students engage in a variety of learning activities including lecture, note taking, research, on-site construction, demonstrations, and performance tasks. Student achievement is measured in a variety of ways. Written, oral, and performance tests are administered. In addition, student performance and work ethics are evaluated using criteria specified by teacher/industry standards.

Topics:

- Measurement Systems
- In-Depth Use of Portable Power Tools
- Personal Safety
- Advanced Design and Planning
- Plan and Blueprint Interpretation
- Interior Finish Work
- Building Codes, Regulations, and Zoning
- Site Work Foundation
- Systems Floor Systems
- Wall Systems Roof Systems
- Enclosing the Structure

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can develop, read and interpret project plans and blueprints. (*R,S*)
2. I can apply critical-thinking strategies to the analysis and evaluation of project design and fabrication activities. (*R,S*)
3. I can use cross-curricular resources and knowledge to develop solutions to problems. (*R,S*)
4. I can utilize knowledge and resources to create innovative solutions and ideas. (*R,S*)
5. I can apply advanced woodworking/construction skills in a working environment. (*S*)
6. I can apply teamwork and cooperative learning. (*S*)
7. I can develop and justify organizational and time management skills as part of the

problem-solving process. (R,S)

8. I can evaluate and apply knowledge of the concepts and skills related to health and safety in the workplace. (R,S)
9. I can produce work of the highest quality possible. (S)
10. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. (R,S)
11. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can use tools, materials, and equipment common to the field of woodworking in a safe manner. (S)
2. I can utilize correct techniques for proper handling of hazardous materials. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select raw materials based on product application. (K,R,S)
2. I can recognize and produce acceptable finished product quality. (S)
3. I can evaluate quality and performance of a variety of systems (e.g. impact of change). (R,S)
4. I can practice and analyze principles of system management considering external factors and uncontrolled variables. (R,S)
5. I can manage and analyze existing systems including optimizing outputs and making in-process adjustments. (R,S)
6. I can design and evaluate a system composed of subsystems. (R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can set up tools, machines, and equipment to manufacture or produce solutions to problems. (S)
2. I can demonstrate application of appropriate woodworking/construction techniques based on knowledge of modern equipment and newly developed woodworking/construction processes. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (R,S)
2. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
3. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (R,S)
4. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (R,S)
5. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. (R,S)

6. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. *(R,S)*
7. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). *(R,S)*
8. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. *(R,S)*
9. I can organize process, analyze, and maintain written and computerized records and other forms of information using systematic methods. *(R,S)*
10. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). *(R,S)*
11. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. *(S)*
12. I can listen for, receive, interprets and recall specific details and instructions in conversations and group meetings. *(S)*
13. I can respond appropriately during conversations, uses proper language etiquette, speaks clearly and directly, and uses correct technical vocabulary. *(S)*
14. I can locate and demonstrate understanding of written technical and non-technical information necessary for completion of task or project. *(S)*
15. I can use proper business or technical writing styles, take effective notes, and complete written assignments legibly, completely, and accurately. *(S)*
16. I can solve linear equations. *(S)*
17. I can use basic operations with real numbers. *(S)*
18. I can use fractions, decimals, and percents. *(S)*
19. I can use ratios and proportions. *(S)*
20. I can apply coordinate geometry. *(S)*
21. I can apply vocabulary and formulas of two-dimensional geometric shapes. *(S)*
22. I can use vocabulary and formulas of three-dimensional geometric shapes. *(S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(S,P)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(S,P)*
3. I can present my unique project to an authentic audience. *(S)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*K*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (*Type*):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*R,S,P*)

Construction Academy

Grades 11-12

Units of Credit: One Year (Elective)

Prerequisites: Wood Technology 1 or Building Trades 1 or Consent of Instructor

Course Description:

The Construction Academy is designed to introduce students to the basic principles of commercial and residential construction. Laboratory activities comprise 85 percent of this program and provide practical application of curriculum knowledge, allowing development of the skills required to become an employable carpenter. Due in part to building and remodeling projects, this course offers hands-on training giving students the opportunity to experience some of the facets of the carpentry trade. Current industry standards are introduced. Students develop and use a variety of skills including safe work habits, organization, problem solving, and practical application of construction techniques. Students engage in a variety of learning activities including lecture, note taking, research, individual projects, demonstrations, and performance tasks. Student achievement is measured in a variety of ways including written, oral and performance testing. In addition, student projects and behavior are evaluated using criteria specified by teacher/industry standards.

Topics:

- Measurement Systems
- In-Depth Use of Hand and Power Tools
- Safety
- Advanced Design and Planning
- Plan and Blueprint Interpretation
- Building Codes, Regulations, Zoning, and Contracts
- Site Work and Preparation
- Estimating and Scheduling
- Foundation Systems
- Concrete
- Framing Systems
- Floor Systems
- Wall Systems
- Roof Systems
- Enclosing the Structure
- Plumbing
- Electrical
- HVAC
- Insulation
- Walls and Ceilings
- Drywall and Plaster
- Exterior and Interior Finishes
- Decks and Porches
- Chimneys and Fireplaces
- Windows and Skylights
- Doors
- Stairways
- Molding and Trim
- Cabinets and Countertops
- Air Conditioning
- Interior Finishing
- Exterior Finishing
- Landscaping
- Careers in the Construction Industry

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (*S*)
2. I can formulate tentative career goals. (*R*)
3. I can evaluate approaches for meeting my goals. (*R*)
4. I can understand the need for career planning. (*K*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. *(K)*
2. I can maintain the tools of the trade. *(S)*
3. I can maximize the use of my resources. *(S)*

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. *(R)*
2. I can apply leadership styles in group activities and projects. *(R)*
3. I can master a working knowledge of SkillsUSA (CTSO). *(S)*

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. *(S)*
2. I can develop personal and work related goals. *(K,P)*
3. I can describe ethical behavior in the workplace. *(K)*
4. I can and do understand the importance of employability and work habits. *(K)*
5. I can and do understand the need for career planning. *(K)*

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. *(S)*
2. I can contribute to my community in a positive manner. *(S,P)*

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. *(K,S)*
2. I can persevere through set backs and stay focused on my goals. *(S)*

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. *(K,S)*
2. I can demonstrate communication skills that contribute to positive relationships. *(S)*
3. I can work to understand diverse points of view. *(R)*

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. *(S)*
2. I can effectively communicate verbally through collaborative projects. *(S,P)*
3. I can develop quality written professional communications. *(S)*

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can construct and install building components according to industry standards. (S)
2. I can install platform floor framing. (S)
3. I can construct exterior wall framing. (S)
4. I can install gable-style roof framing. (S)
5. I can install rough openings in framing. (S)
6. I can install manufactured roof system. (S)
7. I can lay out a foundation. (S)
8. I can demonstrate knowledge of concrete installation. (S)
9. I can install exterior finishes according to industry standards. (S)
10. I can install exterior doors. (S)
11. I can install windows. (S)
12. I can install vertical/horizontal siding. (S)
13. I can install fiberglass shingle roof system. (S)
14. I can install exterior cornice. (S)
15. I can install interior finishes. (S)
16. I can install interior doors. (S)
17. I can install trim and hardware. (S)
18. I can install paneling. (S)
19. I can construct and install stair stringers. (S)
20. I can install and finish drywall. (S)
21. I can install fiberglass shingle roof system (shingles, felt, drip edge) and identify and install: Roofing felt, Drip edge, Starter strip, Shingle, Cap. (S)
22. I can install platform floor framing and also identify and install: Sill sealer, Sill plate, Header joist/band, Floor joist, Bridging, Fasteners, Sub flooring. (S)
23. I can square up floor framing and accurately measure materials. (S)
24. I can identify and install: Sole plate, Top plate, Double top plate, Studs, Trimmer/jack studs, Rough sill, Cripple stud, Header, Corner assembly, Partition backup, Exterior sheathing. (S)
25. I can install gable-style roof framing. (S)
26. I can identify and install: Common rafter, Ridge board, Gable stub, Collar tie, Ceiling joist roof sheathing. (S)
27. I can identify door style, check rough openings, position door unit, plumb, level, and jack units, check unit operation and gaps, then completely fastening unit. (S)
28. I can install and finish drywall. (S)
29. I can identify and install: Drywall, Cornerbead, Fasteners. (S)
30. I can construct and install staircase. (S)
31. I can identify and install: Stringer, Treads, Risers, Railing, Newel post, Balusters. (S)
32. I can install horizontal siding - identify and install: Outside corner, Inside corner, Starter strip, Siding, Undersill, J-channel, F-channel, Soffit, Rake, Fascia. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can determine safe procedures using industry and government standards. (K,R,S)
2. I can demonstrate general lab/work site safety habits. (S)

3. I can demonstrate safe use of tools and equipment. (S)
4. I can observe safety procedures. (S)
5. I can utilize correct techniques for proper handling of hazardous materials. (K,R,S)
6. I can demonstrate knowledge of concepts and skills related to health and safety in the workplace. (K,S)
7. I can comply with safety rules for working with carpentry program. (K,S)
8. I can have chemical manufacturers provide a material safety data sheet (MSDS) for each chemical they produce. (K,S)
9. I can store chemicals in properly labeled containers. (K,S)
10. I can identify the gases encountered in the carpentry program and the hazards they present. (K,S)
11. I can identify the hazards and control of asbestos dust. (K,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)
2. I can identify and measure metric and standard fasteners. (K,S)
3. I can correctly identify and use basic hand tools. (K,S)
4. I can identify and demonstrate the use of basic measuring tools (accurate to 1/32 or 1mm). (K,S)
5. I can use reference manuals or information systems to find service procedures and specifications. (K,S)
6. I can check blueprints and specifications and interpret manufacturer's instructions and specifications. (K,S)
7. I can recognize a door and window schedule. (K,S)
8. I can use and apply basic carpentry program processes in an industrial environment as applied by NBAS or NCCERF Certification. (K,S)
9. I can allocate and evaluate time, materials, facilities, and resources to set and achieve goals. (K,R,S)
10. I can assess skills and distribute work accordingly, evaluate performance, and provide feedback toward the accomplishment of personal and team goals. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can estimate materials. (S)
2. I can calculate: Board feet, Percentage, Linear feet square feet, Cubic feet, Dimensions on blueprints. (S)
3. I can estimate: Footer package, Foundation package, Floor frame package, Wall frame package, Roof frame package, Roofing materials package, Exterior finish package, Interior finish package, Squares of materials. (S)
4. I can square up walls, Plumb walls and brace and fasten walls. (S)
5. I can define related terminology, and identify and install fasteners. (S)
6. I can calculate: Total rise, Total run, Unit rise, Unit run, Head run, Tread thickness. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can read and interpret plot plan. (R,S)
2. I can read and interpret foundation plan. (R,S)
3. I can define foundation layout terms. (S)
4. I can read and interpret blueprints. (R,S)
5. I can estimate materials. (R,S)
6. I can accurately measure. (S)
7. I can define foundation layout terms. (S)
8. I can identify and install: Rake, Fascia, Soffit, Boxed cornice. (S)
9. I can define cornice terms. (S)
10. I can demonstrate knowledge of concrete installation. (S)
11. I can define concrete and reinforcement materials. (S)
12. I can define concrete handling and placing practices. (S)
13. I can define forming and flatwork practices. (S)
14. I can define roofing material terms. (S)
15. I can define floor framing terms. (S)
16. I can crown material. (S)
17. I can identify lumber characteristics. (S)
18. I can define wall framing terms. (S)
19. I can apply appropriate math skills (degrees, angles, Pythagorean theorem). (S)
20. I can define vertical siding terms. (S)
21. I can define drywall terms. (S)
22. I can read and interpret blueprints. (S)
23. I can identify and read: Scales, Alphabet of lines, Plot plans, Foundation plans, Floor plans, Elevations, Sections, Details, Window and door schedules, Symbols, abbreviations and notes, Specifications, Define related terminology. (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines,

rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (*Type*):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

IT Essentials – PC Hardware and Software

Grades 11-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

IT Essentials: PC Hardware and Software is a hands-on, career-oriented e-learning solution with an emphasis on practical experience to help students develop fundamental computer skills, along with essential career skills. The Cisco® IT Essentials curriculum helps students prepare for entry-level ICT career opportunities and the CompTIA A+ certification, which helps students differentiate themselves in the marketplace to advance their careers. In addition, the course provides a learning pathway to the Cisco CCNA® Discovery and CCNA Exploration curricula. Leadership and professionalism will be developed through SkillsUSA-VICA and the Professional Development Program. Students are assessed by observing and measuring performance on tests, quizzes, assigned tasks and projects and by the quality of work produced.

Topics:

- Computer hardware basics
- Operating system basics and installation
- Graphical and command-line operating system basics
- Computer system maintenance planning techniques
- Computer assembly and troubleshooting
- Installation and troubleshooting of peripherals
- Ergonomic needs and considerations
- Career opportunities and intern possibilities

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)

2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can demonstrate employability and social skills relative to careers. (S)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)
3. I can work as part of a team to design, build, analyze, and test group projects. (S)
4. I can develop personal and professional leadership skill through participation in the SkillsUSA student organization activities.(CTSO) (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can complete a project by given project completion deadlines. (*S*)
5. I can manage my time so that I can complete assignments and projects by using my time wisely each and every class period. (*R,S*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate knowledge and skill with computer fundamentals such as system components, memory, connections, PC assembly/disassembly and maintenance procedures. (*K,S*)
2. I can demonstrate knowledge and skill with software applications related to operating systems, diagnostic software and platforms. (*K,S*)
3. I can develop skills, knowledge and understanding of local area networks in topics such as topologies, network design, software, protocols and OSI layers. (*K,S*)
4. I can develop knowledge and understanding of peer-to-peer network concepts. (*K,S*)

5. I can develop knowledge and skills related to drive components and related problems and applications. (K,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can engage in meaningful, hands-on, minds-on and conceptual based computer systems related concepts. (K,R,S)
2. I can demonstrate and develop skills with wide area networks including e-mail, (S) Internet, network topologies, components, routers, WAN services and other related content. (S)
3. I can develop competencies in the safe and efficient use of the tools, machines, materials, and processes of PC technology. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select the correct tools and equipment to most efficiently solve problems that I encounter. (K,S)
2. I can demonstrate knowledge and understanding of service equipment and digital techniques. (K,S)
3. I can use tools, machines, and equipment to repair PCs. (K,R,S)
4. I can creatively solve problems by considering the tools, equipment and resources available to successfully complete projects within the given guidelines. (R,S)
5. I can develop skills necessary to work with others and solve problems. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can develop skills knowledge and understanding of dial up communications concepts such as phone lines, communication software, file transfer and troubleshooting. (K,S)
2. I can demonstrate knowledge and understanding of basic I/O such as keyboards, video, monitors, troubleshooting and other I/O components. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can apply concepts from mathematics, science, communications and computer skills in the context of computer systems technology. (K,S)
2. I can demonstrate knowledge and understanding of computer systems careers, employment outlook and post-secondary education opportunities. (K,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found

in workplace settings. *(R,S,P)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(R)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(S,R,P)*

Cisco CCNA Discovery

Grades 11-12

Units of Credit: One Year (Elective)

Prerequisites: None

Course Description:

The Cisco CCNA Discovery curriculum provides general networking theory, practical experience, and opportunities for career exploration and soft-skills development. The curriculum teaches networking based on application, covering networking concepts within the context of network environments students may encounter in their daily lives – from small office and home office (SOHO) networking to more complex enterprise and theoretical networking models later in the curriculum.

CCNA Discovery is designed for students with basic PC skills and foundational math and problem solving skills. The curriculum offers an engaging learning experience for more visual and kinetic learners. Many interactive activities are embedded in all of the courses to break up the text and help reinforce student comprehension. In addition, a large number of labs encourage additional hands-on practice. CCNA Discovery can be delivered as an independent curriculum or integrated into a broader course of study, such as technology or continuing education programs. CCNA Discovery helps prepare students for entry-level career opportunities, continuing education, and globally-recognized Cisco CCENT and CCNA certifications.

Topics:

- Personal Computer Hardware
- Operating Systems
- Connecting to the Network
- Connecting to the Internet Through an ISP
- Network Addressing
- Network Services
- Wireless Technologies
- Basic Security
- Troubleshooting Your Network
- Course Summary: Putting It All Together

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
3. I can demonstrate employ-ability and social skills relative to careers. (S)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can work as part of a team to design, build, analyze, and test group projects. (*S*)
4. I can develop personal and professional leadership skill through participation in the SkillsUSA student organization activities.(CTSO). (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can complete a project by given project completion deadlines. (*K,R,S*)
5. I can manage my time so that I can complete assignments and projects by using my time wisely each and every class period. (*K,R,S*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate knowledge and skill with computer fundamentals such as system

components, memory, connections, PC assembly/disassembly and maintenance procedures. (K,S)

2. I can demonstrate knowledge and skill with software applications related to operating systems, diagnostic software and platforms. (K,S)
3. I can develop skills, knowledge and understanding of local area networks in topics such as topologies, network design, software, protocols and OSI layers. (K,S)
4. I can develop knowledge and understanding of peer-to-peer network concepts. (S)
5. I can develop knowledge and skills related to drive components and related problems and applications. (K,S)
6. I can set up a personal computer system, including the operating system, interface cards, and peripheral devices. (K,S)
7. I can plan and install a small network connecting to the Internet. (K,S)
8. I can configure a server to share resources and provide common Web services. (K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can engage in meaningful, hands-on, minds-on and conceptual based computer systems related concepts. (S)
2. I can demonstrate and develop skills with wide area networks including e-mail, Internet, network topologies, components, routers, WAN services and other related content. (S)
3. I can develop competencies in the safe and efficient use of the tools, machines, materials, and processes of PC technology. (S)
4. I can share resources such as files and printers among multiple computers. (S)
5. I can recognize and mitigate security threats from a home network. (S)
6. I can understand the structure of the Internet and how communication occurs between hosts. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can select the correct tools and equipment to most efficiently solve problems I encounter. (K,R,S)
2. I can demonstrate knowledge and understanding of service equipment and digital techniques. (K,S)
3. I can use tools, machines, and equipment to repair PCs. (K,R,S)
4. I can creatively solve problems by considering the tools, equipment and resources available to successfully complete projects within the given guidelines. (K,R,S)
5. I can develop skills necessary to work with others and solve problems. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can develop skills knowledge and understanding of dial up communications concepts such as phone lines, communication software, file transfer and troubleshooting. (K,S)
2. I can demonstrate knowledge and understanding of basic I/O such as keyboards, video, monitors, troubleshooting and other I/O components. (K,S)

3. I can troubleshoot network and Internet connectivity. *(R,S)*
4. I can configure an integrated wireless access point and wireless client. *(K,R,S)*
5. I can install, configure, and troubleshoot Cisco IOS devices. *(S)*
6. I can implement basic WAN connectivity using Telco services. *(S)*

Benchmark 5:

Learning Targets (Type):

1. I can apply concepts from mathematics, science, communications and computer skills in the context of computer systems technology. *(K,R,S)*
2. I can demonstrate knowledge and understanding of computer systems careers, employment outlook and post-secondary education opportunities. *(K,S)*
3. I can plan a basic wired infrastructure to support network traffic. *(K,R,S)*
4. I can demonstrate proper disaster-recovery procedures and perform server backups. *(K,S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(R)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(S,R,P)*

Introduction to Technical Design

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Become an Architect, Engineer, Animator, or Game Designer! Learn to draw buildings, cars, and machines using the CAD computer. Work in 3D to create models of game characters and environments. Current industry standards are introduced. Students develop and use a variety of skills including assessing, organizing, problem solving, and analyzing in the application of drafting techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, peer tutoring, and performance tasks. Students are assessed through observation, quizzes, assigned tasks and projects and by the quality of work produced. This course offers students an opportunity to learn the fundamentals of technical drawing and design for a variety of well paid jobs. It is a prerequisite for the advanced drafting classes.

Topics:

- Drafting Careers
- Freehand Sketching
- Board Drawing
- Fundamental CAD
 - 2D Geometry for Technical Drawing
 - Precision Drawing using the Cartesian Coordinate System
 - Multi-view Drawing
 - Pictorial Drawing - Isometric, Obliques. and Perspective
 - Dimensioning and Scaling
 - Sectional Views
 - Working Drawings
 - Introduction to 3D Modeling

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students acquire and demonstrate current knowledge and skills leading to an occupation.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)

3. I can evaluate approaches for meeting my goals. (*R*)
4. I can research information related to drafting/career decisions. (*S*)
5. I can demonstrate skills and knowledge of current equipment, materials, and processes used in drafting related careers. (*K,S*)
6. I can summarize the career opportunities for a person with drafting/design skills. (*K,S*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)
4. I can select goal-relevant activities, allocate time, and prepare and follow schedules. (*R,S*)
5. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (*R,S*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop professional relationships with community members. (*K,P*)
3. I can contribute to my community in a positive manner. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply accepted lettering practices and styles used in manufacturing graphics. (*S*)
2. I can use sketching techniques to develop drawing format and graphic problem solving. (*S*)
3. I can develop computer 3D models, and pictorials drawings. (*S*)
4. I can practice various roles required as a member of an effective team while

recognizing individual differences and cultural diversity. (S)

5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can operate a computer for an extended amount of time using ergonomic techniques. (S)
2. I can operate a computer without divulging important security, personal and identity information. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can detail objects accurately through the principles of shape and size description. (S)
2. I can select goal-relevant activities, allocate time, and prepare and follow schedules. (R,S)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
4. I can apply measurement skills to solve problems. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can make and use appropriate symbols, pictures, diagrams, scaled drawings and models to simplify real life situations and solve problems (Science). (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice accepted standards, symbols, and conventions. (S)
2. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
3. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
4. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)
5. I can locate and demonstrate written technical information. (S)
6. I can use knowledge of geometry to solve problems. (R,S)
7. I can apply mathematical reasoning skills to solve problems. (R,S)
8. I can employ graphs, tables, maps and illustrations in making arguments and drawing conclusions (Science). (R,S)
9. I can use computers to organize data generated models and to do research for problem solving. (Science). (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*

Benchmark 2

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(R)*

Benchmark 4

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

- 1 I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(S,R,P)*

Architectural Design

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Introduction to Technical Design

Course Description:

Architecture is about planning, designing, and constructing buildings. Students explore form, space, and ambience that reflect both function and aesthetics using powerful software tools. They construct drawings to technical specifications and model ideas in three dimensions. This course offers students an opportunity to learn the fundamentals of architectural design. Students develop and use a variety of skills including assessing, organizing, problem solving, and analyzing in the application of drafting techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, demonstrations, and performance tasks. This course provides experience in area planning, basic architectural plans, technical details, architectural support services, and creative ideas on basic principles and techniques of mechanical drawing. Students are assessed by observing and measuring performance on tests, quizzes, assigned tasks and projects and by the quality of work produced.

Topics:

- Careers in Architecture and Related Fields
- Architectural History
- Architectural Drafting Fundamentals
- Layout Design
- Architectural Working Drawings
- Architectural Renderings
- Foundations Systems
- Framing Systems
- Electrical and Mechanical Systems
- Site Design
- Standards and Building Codes
- Building Materials
- Regional Building Topics
- Green Building Technologies

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students acquire and demonstrate current knowledge and skills leading to an occupation.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply accepted lettering practices and styles used in manufacturing graphics. (*S*)
2. I can use sketching techniques to develop drawing format and graphic problem solving. (*S*)
3. I can develop computer 3D models, and pictorials drawings. (*S*)
4. I can practice various roles required as a member of an effective team while

recognizing individual differences and cultural diversity. (S)

5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can operate a computer for an extended amount of time using ergonomic techniques. (K,S)
2. I can operate a computer without divulging important security, personal and identity information. (R,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can detail objects accurately through the principles of shape and size description. (S)
2. I can select goal-relevant activities, allocate time, and prepare and follow schedules. (R,S)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
4. I can apply measurement skills to solve problems. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can make and use appropriate symbols, pictures, diagrams, scaled drawings and models to simplify real life situations and solve problems (Science). (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice accepted standards, symbols, and conventions. (S)
2. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
3. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (S)
4. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)
5. I can locate and demonstrate written technical information. (S)
6. I can use knowledge of geometry to solve problems. (R,S)
7. I can apply mathematical reasoning skills to solve problems.. (R,S)
8. I can employ graphs, tables, maps and illustrations in making arguments and drawing conclusions (Science). (R,S)
9. I can use computers to organize data generated models and to do research for problem solving. (Science). (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Engineering Design

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisite: Introduction to Technical Design

Course Description:

This is a class oriented for future engineers. Students explore all facets of what it takes to get ideas produced. They draw designs on the board and on the computer in three dimensions. They discover for themselves how technology can take a project from idea to digital prototyping. Students refine designs with stress tests, fluid dynamic analysis, and motion studies.

This course offers students an opportunity to learn engineering concepts. Current industry standards are also applied. Students develop and use a variety of skills including assessing, organizing, problem solving, and analyzing in the application of drafting and design techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, demonstrations, and performance tasks. Students are assessed by observation, performance on tests, quizzes, assigned tasks and projects and by the quality of work produced.

Topics:

- Advanced Sketching and Lettering
- ANSI Graphics Standards
- Design Processes
- Fasteners and Standard Parts
- Technical Illustration and Pictorial Drawing
- Working and Assembly Drawings
- Geometric Tolerance and Dimensioning
- Cams and Gears
- Welding Drafting
- Intermediate and Advanced CAD
- 3D Computer Modeling

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students acquire and demonstrate current knowledge and skills leading to an occupation.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply accepted lettering practices and styles used in manufacturing graphics. (*S*)
2. I can use sketching techniques to develop drawing format and graphic problem solving. (*S*)
3. I can develop computer 3D models, and pictorials drawings. (*R,S,P*)
4. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (*R,S*)
5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (*S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can operate a computer for an extended amount of time using ergonomic techniques. (S)
2. I can operate a computer without divulging important security, personal and identity information. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can detail objects accurately through the principles of shape and size description. (S)
2. I can select goal-relevant activities, allocate time, and prepare and follow schedules. (R,S)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
4. I can apply measurement skills to solve problems. (R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can make and use appropriate symbols, pictures, diagrams, scaled drawings and models to simplify real life situations and solve problems (Science). (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice accepted standards, symbols, and conventions. (S)
2. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
3. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
4. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)
5. I can locate and demonstrate written technical information. (S)
6. I can use knowledge of geometry to solve problems. (S)
7. I can apply mathematical reasoning skills to solve problems.. (R,S)
8. I can employ graphs, tables, maps and illustrations in making arguments and drawing conclusions (Science). (S)
9. I can use computers to organize data generated models and to do research for problem solving. (Science). (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Design Project 1

Grades 11-12

Units of Credit: One Semester (Elective)

Prerequisites: Introduction to Technical Design and an Intermediate Design Class such as Architectural Design, Engineering Design, or 3D Modeling & Animation

Course Description:

This course offers students the opportunity to pursue an independent drawing and design project. The one semester project must be proposed by the student and approved by the instructor. Students choose to create a unique project which reflects their learning from earlier design classes and builds upon their skills with fully developed architectural, mechanical, or entertainment working drawings. Instructor and student may elect to align this course with Montana college class CADX 110 Intro to CAD. (CADX 110 (CRT 182T) Intro to Computer Aided Design, is a post-secondary course that introduces students to computer aided design and drafting software for the production of drawings and plans for architecture and engineering systems. Students learn fundamentals of two dimensional drafting and drawing management for professional design.)

Topics:

- Apply basic CAD commands to draw and edit a 2D object
- Draw an object to scale
- Print a CAD drawing to scale
- Dimension and annotate an object
- Create blocks and symbols
- Setting system environment
- Drafting careers
- Freehand sketching
- Board drawing
- Fundamental CAD
- 2D Geometry for Technical Drawing
- Multi-view drawing
- Pictorial Drawing – Isometric, Obliques, and Perspective
- Working Drawings
- 3D Modeling

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students acquire and demonstrate current knowledge and skills leading to an occupation.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (*S*)
2. I can formulate tentative career goals. (*R*)
3. I can evaluate approaches for meeting my goals. (*R*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply accepted lettering practices and styles used in manufacturing graphics. (*S*)
2. I can use sketching techniques to develop drawing format and graphic problem solving. (*S*)
3. I can develop computer 3D models, and pictorials drawings. (*S,P*)

4. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (S)
5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can operate a computer for an extended amount of time using ergonomic techniques. (S)
2. I can operate a computer without divulging important security, personal and identity information. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can detail objects accurately through the principles of shape and size description. (S)
2. I can select goal-relevant activities, allocate time, and prepare and follow schedules. (R,S)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
4. I can apply measurement skills to solve problems. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can make and use appropriate symbols, pictures, diagrams, scaled drawings and models to simplify real life situations and solve problems (Science). (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice accepted standards, symbols, and conventions. (S)
2. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
3. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
4. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)
5. I can locate and demonstrate written technical information. (S)
6. I can use knowledge of geometry to solve problems. (S)
7. I can apply mathematical reasoning skills to solve problems. (S)
8. I can employ graphs, tables, maps and illustrations in making arguments and drawing conclusions (Science). (R,S)
9. I can use computers to organize data generated models and to do research for problem solving. (Science). (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*SR,P*)

Design Project 2

Grades 11-12

Units of Credit: One Semester (Elective)

Prerequisites: Introduction to Technical Design and an Intermediate Design Class such as Architectural Design, Engineering Design, or 3D Modeling & Animation

Course Description:

This course offers students an opportunity to pursue an independent drawing and design project. The one semester project must be proposed by the student and approved by the instructor. Students choose to create a unique project which reflects their learning from earlier design classes and builds upon their skills with fully developed architectural, mechanical, or entertainment working drawings. Instructor and student may elect to align this course with Montana college class CADX 131 Technical Graphics. (CADX 131 Technical Graphics is a postsecondary introduction to concepts related to communicating using technical graphics. Students demonstrate the ability to read blueprints, technical sketches, and schematics. Students create simple free-hand, technical sketches and pictorial drawings. Students demonstrate an understanding of views, ISO symbols, standards, dimensions, and cross-sections.)

Topics:

- Basic drafting skills
- Drafting standards and practices
- Types of projections
- Use multiple methods of drafting equipment and tools: scale, triangle, drafting table
- Technical sketching using welds and applied technical mathematical relations
- Sections and auxiliaries
- Basic math applications

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students acquire and demonstrate current knowledge and skills leading to an occupation.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (K,P)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply accepted lettering practices and styles used in manufacturing graphics. (S)
2. I can use sketching techniques to develop drawing format and graphic problem solving. (S)
3. I can develop computer 3D models, and pictorials drawings. (S,P)
4. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (R,S)
5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can operate a computer for an extended amount of time using ergonomic techniques. (S)
2. I can operate a computer without divulging important security, personal and identity information. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can detail objects accurately through the principles of shape and size description. (S)
2. I can select goal-relevant activities, allocate time, and prepare and follow schedules. (R,S)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
4. I can apply measurement skills to solve problems. (R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can make and use appropriate symbols, pictures, diagrams, scaled drawings and models to simplify real life situations and solve problems (Science). (R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice accepted standards, symbols, and conventions. (S)
2. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
3. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
4. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)
5. I can locate and demonstrate written technical information. (S)
6. I can use knowledge of geometry to solve problems. (R,S)
7. I can apply mathematical reasoning skills to solve problems. (R,S)
8. I can employ graphs, tables, maps and illustrations in making arguments and drawing conclusions (Science). (R,S)
9. I can use computers to organize data generated models and to do research for problem solving. (Science). (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*R,S,P*)

Design Project 3

Grades 11-12

Units of Credit: One Semester (Elective)

Prerequisites: Introduction to Technical Design and an Intermediate Design Class such as Architectural Design, Engineering Design, or 3D Modeling & Animation

Course Description:

This course offers students the opportunity to pursue an independent drawing and design project. The one semester project must be proposed by the student and approved by the instructor. Students choose to create a unique project which reflects their learning from earlier design classes and builds upon their skills with fully developed architectural, mechanical, or entertainment working drawings. Instructor and student may elect to align this course with Montana college class CADX 156 computer Aided Design 11. (CADX 156 Computer Aided Design 11 is a postsecondary and in-depth study of core computer aided design and drafting concepts. Topics covered include drawing objects, templates, blocks, layers, tables, views, 2 plotters, and three-dimensional rendering.)

Topics:

- Introduction to 3D space
- Blocks
- Object grouping and sharing
- Creating 3D objects
- Wireframe, mesh, and surface applications
- Modeling aids
- Modifying 3D objects
- Interoperability with other software
- Preparing 3D presentations and animations
- Preparing models for printing

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students acquire and demonstrate current knowledge and skills leading to an occupation.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).**Benchmark 1:**

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.**Benchmark 1:**

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can apply accepted lettering practices and styles used in manufacturing graphics. (*S*)
2. I can use sketching techniques to develop drawing format and graphic problem solving. (*R,S*)
3. I can develop computer 3D models, and pictorials drawings. (*S,P*)
4. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (*R,S*)
5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (*S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can operate a computer for an extended amount of time using ergonomic techniques. (S)
2. I can operate a computer without divulging important security, personal and identity information. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can detail objects accurately through the principles of shape and size description. (S)
2. I can select goal-relevant activities, allocate time, and prepare and follow schedules. (R,S)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
4. I can apply measurement skills to solve problems. (R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can make and use appropriate symbols, pictures, diagrams, scaled drawings and models to simplify real life situations and solve problems (Science). (R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can practice accepted standards, symbols, and conventions. (S)
2. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
3. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
4. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)
5. I can locate and demonstrate written technical information. (S)
6. I can use knowledge of geometry to solve problems. (R,S)
7. I can apply mathematical reasoning skills to solve problems. (R,S)
8. I can employ graphs, tables, maps and illustrations in making arguments and drawing conclusions (Science). (R,S)
9. I can use computers to organize data generated models and to do research for problem solving. (Science). (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.**Benchmark 1:**

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Metals Technology 1

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Metals Technology 1 provides students with a broad, basic knowledge of various metalworking processes and techniques. Areas of study include sheet metal, foundry, ornamental iron and precision machining. Industrial principles of safety and machine operation and techniques will be stressed. The study of metals technologies allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities and employment requirements inherent in metals technologies. Assessments include written and oral student responses, presentations, teacher observation, and performance assessment of learning activities and tasks.

Topics:

- Sheet Metal
- Personal Safety in Metalworking
- Sheet Metal Pattern Development
- Hand Tools and Cutting Tools
- Sheet Metal Manufacturing Methods
- Metal Buffing, Finishing, and Marking systems
- Precision Machining Processes
- Metalworking Lathe
- Lathe Cutting Tools, Tool Holders, Cutting Speeds and Feed Selection
- Sharpening Lathe Cutting Tools
- Drilling, Reaming, Countersinking, and Counterboring in a Lathe
- Straight Turning, Facing, and Boring
- Taper Turning
- Knurling
- Filing and Polishing
- Cutting Threads on the Lathe
- Work Piece-Holding Devices and Accessories
- Milling Cutters
- Cutting Speeds and Feeds for Milling
- Milling Flat Surfaces, Bevels and Chamfers
- Procedures for Square Stock
- Milling Grooves and Keyways
- Drilling and Boring Operations
- Dividing or Indexing Operations
- Foundry
- Metal Casting
- Melting and Pouring Metal
- Powder Metallurgy
- Ornamental Iron/Non-Ferrous Metal
- Metallurgy science
- CNC metal machining

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to

- problems.(K,S,R)
2. I can use the computer as a problem-solving and design tool.(K,S,R,)
 3. I can use math, science, and language arts skills to develop solutions to problems. (K,S,R)
 4. I can identify current techniques for proper disposal of hazardous materials.(K,R)
 5. I can use and apply metal design processes.(K,R)
 6. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity.(K,R)
 7. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process.(K,S,R,P)
 8. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising.(K,R,S)
 9. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace.(K,R)
 10. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods.(K,R,P,S)
 11. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia).(K,R,S,P)
 12. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources.(K,R)
 13. I can listen for, receive, interpret and recall specific details and instructions in conversations and group meetings.(K,R)
 14. I can respond appropriately during conversations, uses proper language etiquette, speaks clearly and directly, and uses correct technical vocabulary.(K,R,S)
 15. I can describe managerial hierarchy inherent to industry.(K,R)
 16. I can assess product quality utilizing quality control management processes.(K,R)
 17. I can practice and analyze principles of system management considering external factors and uncontrolled variables.(K,R)
 18. I can design and evaluate a system composed of subsystems.(K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,R,S)
2. I can use tools, materials, and equipment commonly employed in the industry in a safe manner. (K,R,S,P)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use prior knowledge to create new ideas for problem solving. (K,R,S)
2. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (K,R,S,P)
3. I can locate and demonstrate understanding of written technical and non-technical information necessary for completion of task or project. (K,R,S,P)
4. I can use proper business or technical writing styles, take effective notes, and complete written assignments legibly, completely, and accurately. (K,R,S,P)
5. I can solve linear equations. (K,R,S,P)

6. I can use basic operations with real numbers. *(K,R,S,P)*
7. I can use fractions, decimals, and percents. *(K,R,S,P)*
8. I can use ratios and proportions. *(K,R,S,P)*
9. I can apply coordinate geometry. *(K,R,S,P)*

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can develop organizational and time management skills as part of the problem solving process. *(K,R,S,P)*
2. I can incorporate critical thinking and assessment skills. *(K,R,S)*
3. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. *(K,R,S,P)*
4. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. *(K,R,S)*
5. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). *(K,R,S,P)*
6. I can evaluate quality and performance of systems (e.g., impact of change). *(K,R,S)*
7. I can manage and analyze existing systems, including optimizing outputs and making in-process adjustments. *(K,R,S)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can demonstrate knowledge of new and emerging metal technologies that may affect the field of metals. *(K,R)*
2. I can describe how metals technologies have affected individuals, societies, cultures, economics, and environment. *(K,R,S,P)*
3. I can recognize the career opportunities for a person with metals technologies skills. *(K,R)*
4. I can apply teamwork and cooperative learning abilities. *(K,R,S)*
5. I can demonstrate basic understanding of historical technological advancements by interpreting and applying to problem solving. *(K,R)*
6. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. *(K,R,S,P)*
7. I can research information related to technological continuing education and career decisions. *(K,R)*
8. I can apply vocabulary and formulas of two-dimensional geometric shapes. *(K,R,S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*R,S,P*)

Metals Technology 2

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Metals Technology 1, Recommended Drafting 1

Course Description:

Metals Technology 2 is for students who have a definite desire to master basic metalworking skills. Industrial principles of safety and machine operation and techniques are emphasized. Areas of study include advanced sheet metal, ornamental ironwork, advanced machining, oxy-acetylene and mig welding. The study of metals technologies allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities and employment requirements inherent in metals technologies. Assessments include written and oral student responses, presentations, teacher observation, and performance assessment of learning activities and tasks.

Topics:

- Advanced Machining Processes
- Personal Safety using Metal Working Machines
- Drilling, Reaming, Countersinking, and Counterboring in a Lathe
- Knurling
- Advanced Sheet Metal Pattern Development, Hand Tools, and Cutting Tools
- Advanced Sheet Metal Manufacturing Methods
- Advanced Metal Buffing, Finishing, and Marking of Metal Products
- Precision Machining
- Foundry
- Advanced Metal Casting Processes
- Powder Metallurgy
- Metals Identification and Advance Uses
- Metallurgy Science
- Composition and Design
- Electroplating
- Advanced Project Fabrication and Finishing

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).**Benchmark 1:**

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to problems. (*K,S,R*)
2. I can use the computer as a problem-solving and design tool. (*K,S,R*)
3. I can use math, science, and language arts skills to develop solutions to problems. (*K,R,S*)
4. I can identify current techniques for proper disposal of hazardous materials. (*K,R*)
5. I can use and apply metal design processes. (*K,S,R*)
6. I can practice various roles required as a member of an effective team while recognizing

- individual differences and cultural diversity.(K,S,R,P)
7. I can demonstrate and teach a learned skill including performance evaluation of self and others in the workplace.(K,R,S,P)
 8. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies.(K,R,S)
 9. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising.(K,R,S)
 10. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace.(K,R)
 11. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods.(K,R)
 12. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia).(K,S,R)
 13. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources.(K,R)
 14. I can listen for, receive, interpret and recall specific details and instructions in conversations and group meetings.(K,R)
 15. I can respond appropriately during conversations, uses proper language etiquette, speaks clearly and directly, and uses correct technical vocabulary.(K,R,S)
 16. I can describe managerial hierarchy inherent to industry.(K,R)
 17. I can assess product quality utilizing quality control management processes.(K,R)
 18. I can practice and analyze principles of system management considering external factors and uncontrolled variables.(K,R)
 19. I can design and evaluate a system composed of subsystems.(K,R)
 20. I can incorporate critical thinking and assessment skills.(K,R,S)
 21. I can evaluate quality and performance of systems (e.g., impact of change).(K,R,S)
 22. I can compare and contrast new and emerging metal technologies that may affect the field of metals.(K,R)
 23. I can apply appropriate math, science, and language arts skills to develop solutions to problems.(K,R,S)
 24. I can determine benefits of teamwork and cooperative learning abilities.(K,R)
 25. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records.(K,R,S)
 26. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints).(K,R)
 27. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods.(K,R)
 28. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia).(K,R)
 29. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources.(K,R)
 30. I can use proper business or technical writing styles, take effective notes, and complete written assignments legibly, completely, and accurately.(K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can use technology tools to enhance learning, increase productivity, and promote creativity.(K,R,S)
2. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers.(K,R)
3. I can use tools, materials, and equipment commonly employed in the industry in a safe manner.(K,R,S)
4. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules.(K,R)
5. I can develop a solution to a metal working problem using the computer as a problem solving and design tool.(K,R,S)
6. I can use prior knowledge to formulate new ideas used in problem-solving.(K,R)
7. I can select, use and apply metal design processes.(K,R,S)
8. I can evaluate tools, materials, and equipment commonly employed in the industry for safety.(K,R)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use prior knowledge to create new ideas for problem solving.(K,R,S)
2. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals.(K,R,S)
3. I can locate and demonstrate understanding of written technical and non-technical information necessary for completion of task or project.(K,R,S)
4. I can use proper business or technical writing styles, take effective notes, and complete written assignments legibly, completely, and accurately.(K,R,S,P)
5. I can manage and analyze existing systems, including optimizing outputs and making in-process adjustments.(K,R,S)
6. I can design and evaluate a system composed of subsystems.(K,R,S,P)
7. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals.(K,R)
8. I can locate and demonstrate understanding of written technical and non-technical information necessary for completion of task or project.(K,R)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can formulate an environmentally-proper procedure for disposal of hazardous materials.(K,R,S)
2. I can develop organizational and time management skills as part of the problem solving process.(K,R,S)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals.(K,R,S)
4. I can practice and analyze principles of system management considering external factors and uncontrolled variables.(K,R)
5. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints).(K,R,S)
6. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records.(K,R,S,P)

7. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals.(K,R,S)
8. I can develop organizational and time management skills as part of the problem solving process.(K,R,S)
9. I can incorporate critical thinking and assessment skills.(K,R)
10. I can manage and analyze existing systems, including optimizing outputs and making in-process adjustments.(K,R)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can demonstrate knowledge of new and emerging metal technologies that may affect the field of metals.(K,R)
2. I can describe how metals technologies have affected individuals, societies, cultures, economics, and environment.(K,R)
3. I can recognize the career opportunities for a person with metals technologies skills. and others in this process.(K,R)
4. I can apply teamwork and cooperative learning abilities.(K,R,S)
5. I can demonstrate basic understanding of historical technological advancements by interpreting and applying to problem solving.(K,R,S)
6. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules.(K,R,S,P)
7. I can apply vocabulary and formulas of two-dimensional geometric shapes.(K,R,S,P)
8. I can research information related to technological continuing education and career decisions.(K,R)
9. I can evaluate quality and performance of systems (e.g., impact of change).(K,R)
10. I can evaluate how metals technologies have affected individuals, societies, cultures, economics, and environment.(K,R)
11. I can analyze research information related to technological continuing education and career decisions.(K,R)
12. I can evaluate current equipment, materials, and processes used in related careers.(K,R)
13. I can assess the career opportunities for a person with metals technologies skills.(K,R)
14. I can evaluate basic understanding of historical technological advancements by interpreting and applying to problem solving.(K,R)
15. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process.(K,R,S,P)
16. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies.(K,R,S,P)
17. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace.(K,R,S)
18. I can listen for, receive, interprets and recall specific details and instructions in conversations and group meetings.(K,R,S)
19. I can respond appropriately during conversations, uses proper language etiquette, speaks clearly and directly, and uses correct technical vocabulary.(K,R,S)
20. I can solve linear equations.(K,R,S,P)
21. I can use basic operations with real numbers.(K,R,S,P)
22. I can use fractions, decimals, and percents.(K,R,S,P)

23. I can use ratios and proportions. *(K,R,S,P)*
24. I can apply coordinate geometry. *(K,R,S,P)*
25. I can apply vocabulary and formulas of two-dimensional geometric shapes. *(K,R,S,P)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(R)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(S,R,P)*

Power Technology 1: Small Engines 1

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

The small gasoline engine forms the basis of instruction for this course. Books, manuals, and lab work help the student learn engine design, mechanical principles, troubleshooting, tune-up, reconditioning, and maintenance. Basic principles in safety, machining and tool usage are studied. This knowledge is translated into practical skills through lab activities wherein students disassemble, then reassemble small engines. They become familiar with the functions and components of a small engine and diagnose simple failures. This course consists of classroom instruction and assignments and hands-on lab activities. Assessments include written and oral student responses, student-assembled engine and presentation, teacher observation, and performance assessment of learning activities and tasks.

Topics:

- Safety in the Small Gas Engine Shop
- Tools and Measuring Instruments
- Fasteners, Sealants and Gaskets
- Two-Cycle and Four-Cycle Engines
- Engine Construction and Principles of Operation
- Two-Cycle and Four-Cycle Engines
- Measuring Engine Performance
- Fuel Emission Control Systems
- Carburetion
- Ignition Systems
- Lubrication Systems
- Cooling Systems
- Preventive Maintenance and Troubleshooting
- Fuel System Service
- Ignition System Service
- Engine Inspection, Disassembly, and Cylinder Reconditioning
- Piston and Piston Ring Service
- Bearing, Crankshaft, Valve and Camshaft Service
- Career Opportunities and Certification

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (*S*)
2. I can formulate tentative career goals. (*R*)
3. I can evaluate approaches for meeting my goals. (*R*)
4. I can summarize career opportunities for a person with mechanical skills. (*K*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)
3. I can interview a person employed in a mechanical related field or write a report on a mechanical occupation of choice. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)
4. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. (*R,S*)
5. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (*R,S*)

6. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals.

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)
3. I can discover the principles of group participation and leadership related to citizenship and career preparation. (K,S)
4. I can develop the skills of effective group participation and leadership related to citizenship and career preparation. (S)
5. I can assess work and evaluate work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
6. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (R,S)
7. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (K,P)
3. I can describe ethical behavior in the workplace. (K)
4. I can assess the employability characteristics of a successful worker in the modern workplace. (R,S)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (R,S)
2. I can contribute to my community in a positive manner. (S,P)
3. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). (R,S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)
4. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. (R,S)
5. I can practice and evaluate the negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. (R,S)
6. I can develop effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers. (S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to problems. (S,P)
2. I can practice appropriate welding techniques based on knowledge of modern equipment and newly developed Power Tech processes. (K,S)
3. I can recognize the career opportunities for a person with Power Tech skills. (K)
4. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
5. I can disassemble and assemble an engine from component parts. (K,S)
6. I can apply the concepts and skills of the trade to simulate actual work situations. (K,S)
7. I can apply the essential knowledge and skills in small engines to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training. (K,S)
8. I can discover the principles of group participation and leadership related to citizenship and career preparation. (R,S)
9. I can develop the skills of effective group participation and leadership related to citizenship and career preparation. (S)
10. I can develop effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers. (S)

11. I can evaluate quality and performance of a variety of systems (e.g. impact of change). (R,S)
12. I can practice and analyze principles of system management considering external factors and uncontrolled variables. (R,S)
13. I can manage and analyze existing systems including optimizing outputs and making in-process adjustments. (R,S)
14. I can design and evaluate a system composed of subsystems. (K,R,S)
15. I can identify the key components of a small engine. (K)
16. I can develop a plan for proper overhaul and maintenance. (R,S)
17. I can read and interpret appropriate schematics, charts and service-repair manuals and bulletins. (K,S)
18. I can disassemble and assemble an engine from component parts. (K,S)
19. I can diagnose and remedy the problems in a non-working engine. (K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate knowledge of new and emerging technologies that may affect the field small engines. (K)
2. I can utilize correct techniques for proper handling of hazardous materials. (S)
3. I can demonstrate knowledge of concepts and skills related to health and safety in the workplace. (K,S)
4. I can safely use hand and power tools and equipment commonly employed in the service and repair of small engines. (K,S)
5. I can safely use hand and power tools and equipment commonly employed in the service and repair of small engines. (K,S)
6. I can build knowledge of the concepts and skills related to health and safety in the workplace. (K,S)
7. I can practice safety in the workplace as specified by appropriate government regulations. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)
2. I can use and apply basic Power Tech processes in an industrial environment. (K,S)
3. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (R,S)
4. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
5. I can develop a plan for proper overhaul and maintenance. (K,R,S)
6. I can understand the functions and the applications of the tools, equipment, technologies, and materials used in small engine services. (K)
7. I can understand the functions and the applications of the tools, equipment, technologies, and materials used in small engine services. (K)
8. I can demonstrate knowledge of new and emerging technologies that may affect the service of small engines. (K)

9. I can use measurement tools and units appropriately and recognize limitations in the precision of the measurement tools. *(K,R,S)*

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. *(R,S)*
2. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. *(R,S)*
3. I can diagnose and remedy the problems in a non-working engine. *(R,S)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use cross-curricular resources and knowledge to develop solutions to problems. *(R,S)*
2. I can develop knowledge to create innovative solutions and ideas. *(R,S)*
3. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. *(K,S)*
4. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). *(R,S)*
5. I can identify the key components of a small engine. *(K)*
6. I can read and interpret appropriate schematics, charts and service-repair manuals and bulletins. *(K,S)*
7. I can demonstrate knowledge of new and emerging technologies that may affect the service of small engines. *(K)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*
3. I can apply the concepts and skills of the trade to simulate actual work situations. *(K,S)*
4. I can apply the essential knowledge and skills in small engines to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training. *(R,S)*
5. I can use mathematics to describe the work and power in a system. *(S)*
6. I can use mathematics to describe and predict electrical and magnetic activity (current, resistance, voltage). *(S)*
7. I can derive and use formulas for area, surface area, and volume of many types of figures. *(S)*
8. I can summarize major issues facing engine repair personnel related to customer satisfaction. *(R,S)*
9. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. *(R,S)*

10. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). *(R,S,P)*
11. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. *(R,S)*
12. I can analyze how matter is affected by changes in temperature, pressure and volume. *(R,S)*
13. I can compare and contrast how conductors, semiconductors, and superconductors work and describe their present and potential uses. *(R,S)*
14. I can demonstrate an understanding that energy can be found in chemical bonds and can be used when it is released from those bonds. *(K,S)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(R)*
3. I can use various techniques to approximate solutions, determine the reasonableness of answers, and justify the results. *(K,R,S)*
4. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. *(R,S)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(R,S,P)*

Power Technology 2A: Small Engines 2

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Power Technology 1

Course Description:

Small Engines 2A students will learn how to repair gasoline engines used in power boats, motorcycles, ATVs, snowmobiles, chainsaws and lawn and garden equipment. Instruction includes locating the source of trouble with engines, using appropriate hand tools and instruments, dismantling of engines and drive systems for examination of parts (such as rings and bearings) and using the proper tools. Adjustments of carburetors, magnetos and ignition systems are also included. Students will be expected to learn how to maintain appropriate business records and parts inventory and to determine the cost of materials and labor charges. Second and third semester students may advance to larger engines, and continue to work on four wheelers, snow machines and outboard motors.

All advanced students need to be motivated and able to work independently on engine troubleshooting and making repairs according to industry standards. Purchase of safety glasses and coveralls is required. This course consists of classroom instruction and assignments and hands-on lab activities. Assessments include written and oral student responses, student assembled engine and presentation, teacher observation, and performance assessment of learning activities and tasks.

Topics:

- Introduction to Small Engine Repair
- Small Engine Parts and Operations
- Small Engine Lubrication and Cooling Systems
- Small Engine Ignition Systems
- Small Engine Electrical Systems
- Small Engine Fuel Systems
- Engine Disassembly
- Engine Rebuild
- Engine Reassembly
- Power Transmission Systems
- Servicing Lawn Mowers and Riding Mowers
- Servicing Garden Tractors
- Servicing Two-Stroke and Four-Stroke Power Equipment: Part 1
- Servicing Two-Stroke and Four-Stroke Power Equipment: Part 2
- Servicing Outboard Engines
- Your Outdoor Power Equipment Repair Business
- Work Experience Option
- Internship

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to problems. (K,S)
2. I can practice appropriate Power Tech techniques based on knowledge of modern equipment and newly developed Power Tech processes. (K,S)
3. I can recognize the career opportunities for a person with Power Tech skills. (K)
4. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
5. I can disassemble and assemble an engine from component parts. (K,S)
6. I can apply the concepts and skills of the trade to simulate actual work situations. (K,S)
7. I can apply the essential knowledge and skills in small engines to work-based learning experiences including, but not limited to, cooperative education, job shadowing, mentoring, and apprenticeship training. (K,S)
8. I can discover the principles of group participation and leadership related to citizenship and career preparation. (R,S)
9. I can summarize major issues facing engine repair personnel related to customer satisfaction. (K,S)
10. I can assess the employability characteristics of a successful worker in the modern workplace. (R,S)
11. I can use measurement tools and units appropriately and recognize limitations in the precision of the measurement tools. (K)
12. I can derive and use formulas for area, surface area, and volume of many types of figures. (K,S)
13. I can analyze how matter is affected by changes in temperature, pressure and volume. (K,R,S)
14. I can use mathematics to describe the work and power in a system. (K)
15. I can use mathematics to describe and predict electrical and magnetic activity (current, resistance, voltage). (K,R)
16. I can compare and contrast how conductors, semiconductors, and superconductors work and describe their present and potential uses. (K,R)
17. I can demonstrate an understanding that energy can be found in chemical bonds and can be used when it is released from those bonds. (K)
18. I can use mathematics to describe the work and power in a system. (K)
19. I can use mathematics to describe and predict electrical and magnetic activity (current, resistance, voltage). (K)
20. I can compare and contrast how conductors, semiconductors, and superconductors work and describe their present and potential uses. (K,R)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate knowledge of new and emerging technologies that may affect the field small engines. (S)
2. I can utilize correct techniques for proper handling of hazardous materials. (K,R,S)
3. I can demonstrate knowledge of concepts and skills related to health and safety in the

workplace. (K,S)

4. I can safely use hand and power tools and equipment commonly employed in the service and repair of small engines. (K,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)
2. I can use and apply basic Power Tech processes in an industrial environment. (S)
3. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (R,S)
4. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
5. I can develop a plan for proper overhaul and maintenance. (K,S)
6. I can understand the functions and the applications of the tools, equipment, technologies, and materials used in small engine services. (K,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
2. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
3. I can diagnose and remedy the problems in a non-working engine. (R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use cross-curricular resources and knowledge to develop solutions to problems. (K,S,P)
2. I can develop knowledge to create innovative solutions and ideas. (R,S)
3. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (K,S)
4. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). (R,S)
5. I can identify the key components of a small engine. (K)
6. I can read and interpret appropriate schematics, charts and service-repair manuals and bulletins. (K,S)
7. I can demonstrate knowledge of new and emerging technologies that may affect the service of small engines. (K,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found

in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Power Technology 2B: Consumer Mechanics

Grade: 10-12

Units of Credit: One Semester (Elective)

Prerequisites: Power Technology 2A or Consent of Instructor

Course Description:

Consumer Mechanics students learn how to maintain, diagnose and repair engines, automatic and manual transmissions/transaxles, suspensions, power steering systems, brakes, electrical systems, and heating and air conditioning systems. Engine performance testing is an integral part of their training. Training also includes the safe removal and recycling of hazardous materials.

Students who meet eligibility requirements may have the opportunity to earn college credits for units of study within this career program. Students who qualify to participate in this class will have opportunities to receive more on-the-job training in the industry.

Topics:

- Tire and wheel service
- Brake service
- Steering and suspension service
- Lubrication and cooling systems
- Vehicle preparation and maintenance
- Fuel and exhaust systems
- Electrical systems
- Battery service
- Starting systems
- Charging systems Ignition systems
- Engine service
- Emission testing service
- Vehicle safety/emission inspection
- Alignment service
- Air conditioning service
- Power train service
- Internship

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can understand the need for career planning. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
2. I can describe the importance of balance between family and community in regards to career and leisure activities. (K,R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can master a working knowledge of SkillsUSA (CTSO). (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can and do understand the importance of employability and work habits. (*K,R*)
5. I can and do understand the need for career planning. (*K,R*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to problems. (*S,R,P*)

2. I can practice appropriate automotive technician techniques based on knowledge of modern equipment and newly developed automotive technician processes. (K,S)
3. I can recognize the career opportunities for a person with automotive technician skills. (K)
4. I can assess skills and distribute work accordingly, evaluate performance, and provide feedback toward the accomplishment of personal and team goals. (R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate knowledge of new and emerging technologies that may affect the field of an automotive technician. (K)
2. I can utilize correct techniques for proper handling of hazardous materials. (K)
3. I can demonstrate knowledge of concepts and skills related to health and safety in the workplace. (K,S)
4. I can comply with safety rules for working with automotive chemicals. (K)
5. I can have and keep a chemical manufacturers provided material safety data sheet (MSDS) for each chemical they produce. (K)
6. I can store chemicals in properly labeled containers. (K)
7. I can identify the gases encountered in the automotive field and the hazards they presents. (K)
8. I can identify the hazards and control of asbestos dust. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)
2. I can identify and measure metric and standard fasteners. (K,S)
3. I can correctly identify and use basic hand tools. (K,S)
4. I can identify and demonstrate use of basic measuring tools (accurate to 1/32 or 1mm). (K,S)
5. I can use reference manuals or information systems to find service procedures and specifications. (K,S)
6. I can properly raise and support vehicles using jack stands and a frame contact joist. (K,S)
7. I can use and apply basic automotive repair processes in an industrial environment as applied by ASE Certification. (K,S)
8. I can allocate and evaluate time, materials, facilities, and resources to set and achieve goals. (R,S)
9. I can assess skills and distribute work accordingly, evaluate performance, and provide feedback toward the accomplishment of personal and team goals. (R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
2. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use cross-curricular resources and knowledge to develop solutions to problems. *(R,S,P)*
2. I can develop knowledge to create innovative solutions and ideas. *(K)*
3. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. *(K,S)*
4. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). *(R,S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(R)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(S,R,P)*

Power Technology 3: Automotive

Grade: 11-12

Units of Credit: One Year (Elective)

Prerequisites: Power Technology 2 or Consent of Instructor

Course Description:

Automotive students learn how to maintain, diagnose and repair engines, automatic and manual transmissions/transaxles, suspensions, power steering systems, brakes, electrical systems, and heating and air conditioning systems. Engine performance testing is an integral part of their training. Training also includes the safe removal and recycling of hazardous materials. All areas of instruction in this program help prepare the students for the certification test sponsored by the National Institute for Automotive Service Excellence (ASE).

Students who meet eligibility requirements may have the opportunity to earn college credits for units of study within this career program. Students qualify to participate in the Automotive Youth Educational System (AYES) program that provides outstanding opportunities for high school students to get on the job training in the industry. Graduates of this program may obtain employment as general automotive technicians and automotive service repairers specializing in any one or more of the following areas: brakes, front ends, steering and suspension systems; engine repairs, tune up, and emission systems; electric and fuel systems; automotive heating and air conditioning systems; and automatic and manual transmissions/transaxles. This program will be certified by the National Automotive Technicians Education Foundation, Inc.

Topics:

- Tire and wheel service
- Brake service
- Steering and suspension service
- Lubrication and cooling systems
- Vehicle preparation and maintenance
- Fuel and exhaust systems
- Electrical systems
- Battery service
- Starting systems
- Charging systems Ignition systems
- Engine service
- Emission testing service
- Vehicle safety/emission inspection
- Alignment service
- Air conditioning service
- Power train service
- Internship

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can summarize the career opportunities for a person with automotive repair skills. (K,S)
5. I can write a report on an automotive occupation of choice. (S,P)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)
3. I can interview a person working in an automotive related job. (R,S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)
2. I can describe the importance of balance between family and community in regards to career and leisure activities. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)
5. I can use or prepare work order pricing estimates, make forecasts, keep records, make adjustments to meet objectives, and evaluate actual cost of repair records. (R,S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

4. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. *(R,S)*
5. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. *(R,S)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. *(S)*

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. *(K)*
2. I can maintain the tools of the trade. *(S)*
3. I can maximize the use of my resources. *(S)*

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. *(R)*
2. I can apply leadership styles in group activities and projects. *(R)*
3. I can apply the skills of effective group participation and leadership related to citizenship and career preparation. *(R,S)*
4. I can distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. *(R,S)*
5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. *(S)*

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. *(S)*
2. I can develop personal and work related goals. *(K,P)*
3. I can describe ethical behavior in the workplace. *(K)*

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. *(S)*
2. I can contribute to my community in a positive manner. *(S,P)*
3. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). *(R,S)*

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. *(K,S)*
2. I can persevere through set backs and stay focused on my goals. *(S)*

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)
4. I can develop effective oral and written communication skills with individuals from varied cultures, including fellow workers, management, and customers. (S)
5. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (R,S)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (R)
4. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. (R,S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.**Benchmark 1:**

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
2. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
3. I can derive and use formulas for area, surface area, and volume of many types of figures. (K)
4. I can analyze how matter is affected by changes in temperature, pressure and volume. (R,S)
5. I can use mathematics to describe the work and power in a system. (K,R,S)
6. I can use mathematics to describe and predict electrical and magnetic activity (current, resistance, voltage). (K,R,S)
7. I can compare and contrast how conductors, semiconductors, and superconductors work and describe their present and potential uses. (R,S)
8. I can demonstrate an understanding that energy can be found in chemical bonds and can be used when it is released from those bonds. (K)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use measurement tools and units appropriately and recognize limitations in the precision of the measurement tools. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). (R,S)
2. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)
3. I can identify the key components of an automotive system. (K)
4. I can compose a plan for proper automotive maintenance. (R,S)
5. I can assemble vehicle components from individual component parts. (K)
6. I can diagnose and remedy the problems in non-working automotive systems. (R,S)
7. I can evaluate quality and performance of a variety of systems (e.g. impact of change). (R,S)
8. I can practice and analyze principles of system management considering external factors and uncontrolled variables. (R,S)
9. I can manage and analyze existing systems including optimizing outputs and making in-process adjustments. (R,S)
10. I can design and evaluate a system composed of subsystems. (R,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (K,S)
3. I can present my unique project to an authentic audience. (S,R,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)
3. I can use various techniques to approximate solutions, determine the reasonableness of answers, and justify the results. (S)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Exploration of Automotive Careers (MAT)

Grades 11 -12

Units of Credit: One Year (Elective)

Prerequisites: Power Technology 2, or Ag- Ed 2 and enrolled in 3, or Consent of Instructor

Course Description:

In this course students will explore and experience skills related to the automotive industry. The student will learn maintenance procedures, diagnose problems, and repair automotive components such as: engines, transmissions, trans axels, drive trains, suspensions, brakes, exhaust, electrical, components and heating and air conditioning components. Also included is minor body collision and rust repair. This course is a partnership with Montana Automotive Technologies (MAT). Montana Automotive Technologies provides the shop space, tools and projects. In addition MAT provides volunteer mentors to work with the students in various aspects of mechanical repair. This class is supported by the area automobile dealers and repair shops. Successful completion of this class will give a student entry level work skills and the knowledge to continue their education in a post secondary school or the military. This class is scheduled to enhance the students “hands on” learning experience with a 3.5 hour lab and a 2 hour class scheduled each week. Check with the Instructor for the time, location and day of week.

Topics:

- Tire and wheel selection and service
- Brake service
- Steering and suspension service
- Lubrication and cooling systems
- Fuel systems
- Electrical systems
- Exhaust systems
- Starting systems
- Charging and starting systems
- Engine service
- Dent repair
- Panel replacement
- Power Train service
- Vehicle safety systems

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can understand the need for career planning. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (K)
2. I can describe the importance of balance between family and community in regards to career and leisure activities. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can master a working knowledge of SkillsUSA (CTSO) (State the SkillsUSA motto, creed, and colors. Describe the official SkillsUSA dress and procedure for becoming a SkillsUSA officer). (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)
4. I can and do understand the importance of employability and work habits. (*K,R*)
5. I can and do understand the need for career planning. (*K,R*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to problems. *(R,S,P)*
2. I can practice appropriate automotive technician techniques based on knowledge of modern equipment and newly developed automotive technician processes. *(S)*
3. I can recognize the career opportunities for a person with automotive technician skills. *(K)*
4. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. *(R,S)*

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate knowledge of new and emerging technologies that may affect the field of an automotive technician. *(K)*
2. I can utilize correct techniques for proper handling of hazardous materials. *(K)*
3. I can demonstrate knowledge of concepts and skills related to health and safety in the workplace. *(K,S)*
4. I can comply with safety rules for working with automotive chemicals. *(K)*
5. I can have chemical manufacturers provide a material safety data sheet (MSDS) for each chemical they produce. *(K)*
6. I can store chemicals in properly labeled containers. *(K)*
7. I can identify the gasses encountered in the automotive field and the hazards they present. *(K)*
8. I can identify the hazards and control of asbestos dust. *(K)*

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. *(K,S)*
2. I can identify and measure metric and standard fasteners. *(K,S)*
3. I can correctly identify and use basic hand tools. *(K,S)*
4. I can identify and demonstrate use of basic measuring tools (accurate to 1/32 or 1mm). *(K,S)*
5. I can use reference manuals or information systems to find service procedures and specifications. *(K)*
6. I can properly raise and support vehicles using jack stands and a frame contact hoist. *(K,S)*
7. I can use and apply basic automotive repair processes in an industrial environment as applied by ASE Certification. *(K)*
8. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. *(R,S)*
9. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. *(R,S)*

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. *(R,S)*
2. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. *(R,S)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use cross-curricular resources and knowledge to develop solutions to problems. (K,S)
2. I can develop knowledge to create innovative solutions and ideas. (K)
3. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (K,S)
4. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). (R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Welding Technology 1

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

Welding Technology 1 offers students an opportunity to learn the fundamentals of welding technology. This includes using Miller and Lincoln arc welding equipment, Hypertherm Plasma Cutting machines, and Miller and Lincoln wire feed welders. Current industry standards are introduced by having students work on forming basic welds such as t welds, butt welds, and lap welds. Once those welding skills are developed, students will work on the creation of a small project using those skills. Students will learn basic metallurgy such as how like steels are fused and the heat necessary to create a solid weld. Students who learn these skills will be able to repair steel structures and create various metal projects with these skills. Welding processes are commonly used in the manufacturing and construction fields. There are many career opportunities for those with welding skills.

Topics:

- Welding and Personal Safety
- Care and Use of Equipment
- Joint Design and Construction
- Welding Terminology
- Introduction to Oxyacetylene Welding
- Introduction to Arc Welding
- Introduction to MIG Welding and Wire Feed Welding
- Torch and Plasma Cutting Processes
- Welding Career Opportunities

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can identify information related to welding technologies as it applies to continuing education and career decisions. (K)

5. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)
6. I can recognize the career opportunities for a person with welding skills. (S)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)
5. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (R,S)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)
4. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. (R,S)
5. I can develop organizational and time management skills as part of the problem-solving process. (R,S)
6. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (R,S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can apply teamwork and cooperative learning skills. (*R,S*)
4. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (*R,S*)
5. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (*S*)
6. I can demonstrate the principles of effective group participation and leadership related to citizenship and career preparation. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,R*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)
4. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. (*R,S*)
5. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. (*R,S*)
6. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). (*R,S*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to problems. (*K,S,P*)
2. I can set up for shielded metal arc welding operations on mild carbon steel. (*K*)
3. I can strike an arc and run a beading using shielded metal arc welding equipment on mild steel plate. (*K*)
4. I can operate oxyacetylene welding and cutting equipment. (*K*)
5. I can accurately layout a project using appropriate measuring tools. (*K*)
6. I can create basic weld joints in the flat position using the oxyacetylene welding process. (*K*)
7. I can set up for gas metal arc welding operations on mild steel. (*K*)
8. I can create basic weld joints in the flat position using the gas metal arc welding process. (*K*)
9. I can assess product quality using standard testing practices. (*R,S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can utilize correct techniques for proper handling of hazardous materials. (*K,S*)
2. I can demonstrate knowledge of concepts and skills related to health and safety in the welding area. (*K,S*)
3. I can safely use grinding machines. (*K,S*)
4. I can use tools, materials, and equipment commonly employed in the industry in a safe manner. (*S*)
5. I can utilize correct techniques for proper handling of hazardous materials. (*K,R,S*)
6. I can demonstrate knowledge of concepts and skills related to health and safety in the workplace. (*K,S*)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify the correct safety gear for the various welding processes. (*K*)
2. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (*K,S*)
3. I can use and apply basic welding processes in an industrial environment. (*S*)
4. I can choose the best welding process for the job at hand. (*R,S*)

5. I can use tools, machines, and equipment to manufacture or produce solutions to problems. *(R,S,P)*
6. I can demonstrate knowledge of new and emerging technologies that may affect the field of welding. *(K)*

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. *(R,S)*
2. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. *(R,S)*

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use cross-curricular resources and knowledge to develop solutions to problems. *(K,S)*
2. I can develop knowledge to create innovative solutions and ideas. *(K,S)*
3. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. *(R,S)*
4. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). *(R,S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(S)*
3. I can use and apply basic welding processes in an industrial environment. *(S)*
4. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. *(R,S)*
5. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. *(R,S)*
6. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). *(R,S)*
7. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. *(R,S)*
8. I can use cross-curricular resources and knowledge to develop solutions to problems. *(R,S)*
9. I can develop knowledge to create innovative solutions and ideas. *(R,S)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)
2. I can practice appropriate welding techniques based on knowledge of modern equipment and newly developed welding processes. (*K,S*)

Welding Technology 2

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Welding Technology 1; Also Recommend Drafting 1

Course Description:

Welding Technology 2 affords students an opportunity to master the fundamentals of advanced welding and metal fabrication. Current industry standards are observed and practiced. Students master and use a variety of skills including safe work habits, organization, problem solving, and practical application of welding techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, demonstrations, and performance tasks. Students are assessed through observation, performance on tests, quizzes, assigned tasks and projects, and by the quality of work produced.

Topics:

- Welding and Personal Safety
- Care, Use, and Maintenance of Equipment
- Advanced Joint Design and Construction
- Welding Terminology
- Welding Fabrication
- Out of Position Welding
- Advanced Oxyacetylene Welding
- Advanced Arc Welding
- Shielded Gas (MIG and TIG) Welding
- Material Cutting Processes
- Welding Career Exploration
- Welding Metallurgy
- Production Welding
- Welding Certification and Testing

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)

3. I can evaluate approaches for meeting my goals. *(R)*
4. I can use information related to welding technologies as it applies to continuing education and career decisions. *(K,S)*
5. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. *(K,S)*

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*
3. I can observe and summarize the career opportunities for a person with welding skills. *(K)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(R,S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can stay within a fixed budget. *(S,P)*
5. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. *(R,S)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(R)*
2. I can prioritize resources, equipment and tasks. *(R)*
3. I can reflect upon completion. *(K)*
4. I can demonstrate organizational and time management skills as part of the problem-solving process. *(R,S)*
5. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. *(R,S)*
6. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. *(R,S)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. *(S)*

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (*R,S*)
4. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (*S*)
5. I can build upon the principles of effective group participation and leadership related to workplace hierarchy. (*R,S*)
6. I can apply teamwork and cooperative learning skills. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)
3. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). (*R,S*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

4. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (K,R,S)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)
4. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. (R,S)
5. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. (R,S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to problems. (K,R,S)
2. I can demonstrate appropriate welding techniques based on knowledge of modern equipment and newly developed welding processes. (K,S)
3. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)
4. I can apply teamwork and cooperative learning skills. (S)
5. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
6. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (R,S)
7. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. (R,S)
8. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). (R,S)
9. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
10. I can build upon the principles of effective group participation and leadership related to workplace hierarchy. (R,S)
11. I can assess product quality using standard testing practices. (R,S)
12. I can use CNC operated machinery used in the welding industry. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can utilize correct techniques for proper handling of hazardous materials. (K,R,S)
2. I can demonstrate knowledge of concepts and skills related to health and safety in the workplace. (K,S)
3. I can use tools, materials, and equipment commonly employed in the industry in a safe

manner. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can apply welding processes in an industrial environment. (K,S)
2. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. (R,S)
3. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can demonstrate organizational and time management skills as part of the problem solving process. (R,S)
2. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (R,S)
3. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can demonstrate knowledge and apply new and emerging technologies that are utilized in the field of welding. (K,S)
2. I can apply critical-thinking strategies to the analysis and evaluation of potential welding and fabrication assignments. (R,S)
3. I can use cross-curricular resources and knowledge to develop solutions to problems. (K,S)
4. I can utilize knowledge to create innovative solutions and ideas. (K,S)
5. I can use information related to welding technologies as it applies to continuing education and career decisions. (K,S)
6. I can observe and summarize the career opportunities for a person with welding skills. (K,S)
7. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (S)
8. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. (R,S)
9. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). (R,S)
10. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found

in workplace settings. (R,S,P)

3. I can apply critical-thinking strategies to the analysis and evaluation of potential welding and fabrication assignments. (R,S)
4. I can use cross-curricular resources and knowledge to develop solutions to problems. (R,S)
5. I can utilize knowledge to create innovative solutions and ideas. (K,S)
6. I can assess product quality using standard testing practices. (R,S)
7. I can apply welding processes in an industrial environment. (K,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)
3. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (R,S,P)

Welding Technology 3: Design and Fabrication

Grades 11-12

Units of Credit: One Year (Elective)

Prerequisites: Welding Technology 2 and Drafting 1

Course Description:

This course is for students who want to construct and assemble projects from the materials used in the art metal, construction, and metals industries. Current industry standards are observed and practiced. Students master and apply a variety of skills including safe work habits, organization, problem solving, and practical application of welding techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, demonstrations, and performance tasks. Students are assessed by observing and measuring performance on tests, quizzes, assigned tasks and projects, and by the quality of work produced.

Topics:

- Welding and Personal Safety
- Care, Use, and Maintenance of Equipment
- Advanced Joint Design and Construction
- Welding Terminology
- Welding Fabrication
- Artistic Expression in Welding
- Out of Position Welding
- Advanced Oxyacetylene Welding
- Advanced Arc Welding
- Shielded Gas (MIG and TIG) Welding
- Material Cutting Processes
- Forge Welding
- Welding Career Exploration
- Welding Metallurgy
- Production Welding
- Welding Certification and Testing

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)
4. I can explore opportunities related to welding technologies as they apply to continuing education and career decisions. (K,S)
5. I can apply the skills and knowledge of current equipment, materials, and processes used in related careers. (K,S)
6. I can observe and assess the career opportunities for a person with welding skills. (R,S)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)
5. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (R,S)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)
4. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. (R,S)
5. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (R,S)
6. I can form organizational and time management skills as part of the problem-solving process. (R,S)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)
3. I can build upon the principles of effective group participation and leadership related to workplace hierarchy. (R,S)
4. I can incorporate teamwork and cooperative learning skills. (S)
5. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
6. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (R,S)
7. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (R,S)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (S)
2. I can develop personal and work related goals. (K,P)
3. I can describe ethical behavior in the workplace. (K)
4. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints).

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (R,S)
2. I can demonstrate communication skills that contribute to positive relationships. (R,S)
3. I can work to understand diverse points of view. (R,S)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)
4. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). (R,S)
5. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. (R,S)
6. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. (R,S)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can evaluate and apply the concepts and skills related to health and safety in the workplace. (R,S)
2. I can use tools, materials, and equipment commonly employed in the welding industry in a safe and efficient manner. (K,S)
3. I can utilize correct techniques for proper handling of hazardous materials. (K,R,S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can use tools, machines, and equipment to manufacture or produce solutions to problems. (R,S)
2. I can demonstrate creativity in the use of new and emerging technologies applicable to welding fabrication. (R,S)
3. I can select and apply welding techniques based on knowledge of modern equipment and newly developed welding processes. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (S,P)
3. I can apply critical-thinking strategies to the analysis and evaluation of potential welding and fabrication assignments. (R,S)
4. I can produce projects based on designing and/or interpreting plans. (S,P)
5. I can use cross-curricular resources and knowledge to develop solutions to problems. (K,S)
6. I can design and fabricate innovative solutions and applications. (K,R,S)
7. I can apply product quality standards common to the industry. (K,S)
8. I can apply design and fabrication processes in a welding environment. (K,S)
9. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
10. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
11. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Welding Technician - Entry Level

Grades 10-12

Units of Credit: One Semester (Elective)

Prerequisite: None

Course Description:

This course offers students an opportunity to learn the fundamentals of welding technology. The content of Welding Technician – Entry Level is arranged around the four MCPS; Career and Technical Education Standards. These standards include Technical Skills and Content Knowledge, Career and Life Planning, Skills for Life and Work, and Structure of Organizations and Work. Current industry standards are introduced. Students develop and use a variety of skills including safe work habits, organization, problem solving, and practical application of welding techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, demonstrations, and performance tasks. Students are assessed by observing and measuring performance on tests, quizzes, assigned tasks and projects, and by the quality of work produced. Students will learn basic skills that will prepare them to apply technical knowledge and skill to current welding processes. These tasks are based on the American Welding Society (AWS) task list and the NCCER level one training manual.

Topics:

- Welding and Personal Safety
- Care and Use of Equipment
- Joint Design and Construction
- Welding Terminology
- Introduction to Oxyacetylene Welding
- Introduction to Arc Welding
- Introduction to MIG Welding
- Material Cutting Processes
- Welding Career Exploration

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)

3. I can evaluate approaches for meeting my goals. *(R)*
4. I can explore careers in the metal industry fields *(S,K,R)*.
5. I can prepare a resume, cover letters, and references *(K,R)*.
6. I can identify information related to welding technologies as it applies to continuing education and career decisions. *(S,K,R)*
7. I can demonstrate skills and knowledge of current equipment, materials, and processes used in related careers. *(K,S)*
8. I can recognize the career opportunities for a person with welding skills. *(K,R)*
9. I can develop and update a portfolio showing my skills and accomplishments. *(K,R,S,P)*
10. I can develop and upgrade a resume for use with employers. *(K,R,S,P)*

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. *(K)*
2. I can contact my school career counselor or teacher to pursue career pathways. *(S)*
3. I can experience presentations by representatives of post-secondary education career organizations and professionals in the field of welding.. *(K)*
4. I can explore and experience careers in welding through job-shadowing experiences. *(K,R)*
5. I can participation in local, state, and national completion.. *(K,S,R)*
6. I can be a part of and compete in the Skills USA Student Youth Organization. *(S)*

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. *(K)*
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. *(R)*

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. *(R,S)*
2. I can document financial inputs and outputs. *(S)*
3. I can identify the necessity to maintain accurate financial records. *(K)*
4. I can stay within a fixed budget. *(S,P)*
5. I can prepare time or job cards, reports, or records. *(K,S)*

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. *(R)*
2. I can prioritize resources, equipment and tasks. *(R)*
3. I can reflect upon completion. *(K)*

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (R)
2. I can apply leadership styles in group activities and projects. (R)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (S)
2. I can develop personal and work related goals. (K,P)
3. I can describe ethical behavior in the workplace. (K)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)
3. I can demonstrate decision-making and problem-solving skills. (S, K)
4. I can follow verbal instructions to complete work assignments. (S)
5. I can follow written details to complete work assignments. (S)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can perform basic math conversions. (K,S)
2. I can read and correctly use a tape measure, rule, and square. (K,S)
3. I can perform basic layout techniques. (S)
4. I can set up for shielded metal arc welding operations on plain carbon steel. (K)
5. I can start and restart an arc, crater, and backfill at the edge while running a bead on mild steel plate. (K)
6. I can build a pad on a mild steel plate in the flat position on plain carbon steel. (S)
7. I can weld to specifications a fillet weld in the flat position on plain carbon steel. (S)
8. I can weld to specifications a multi-pass fillet weld in the flat position on plain carbon steel. (S)
9. I can perform straight cutting operations on plain carbon steel. (S)
10. I can perform shape-cutting operations on plain carbon steel. (S)
11. I can perform bevel-cutting operations on plain carbon steel. (S)
12. I can set up for gas metal arc welding operations on plain carbon steel. (K)
13. I can operate gas metal arc welding equipment. (K,S)
14. I can use Short Circuit Transfer to make fillet welds in flat position on plain carbon steel. (S)
15. I can use Short Circuit Transfer to make grooves welds, flat position, on plain carbon steel. (S)
16. I can use Spray Transfer to make fillet welds, flat position, on plain carbon steel. (S)
17. I can use Spray Transfer to make groove welds, flat position, on plain carbon steel. (S)
18. I can identify welding processes. (K)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can complete a student safety pledge (Disclosure Statement). (K)
2. I can respond to first aid requirements. (K)
3. I can follow safe practices. (K)
4. I can perform housekeeping duties. (K)
5. I can successfully complete Safety Tests on equipment use. (K)
6. I can perform safety inspections of equipment and accessories. (K)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can operate manual oxyfuel gas cutting equipment. (S)
2. I can identify basic hand tools. (K)
3. I can identify basic power tools and equipment. (K)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

NOT ADDRESSED IN THIS COURSE.

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)
3. I can identify and apply the five “alphabet” lines in print reading. (K,S)
4. I can interpret tolerance dimensions in decimal, fractions, and degrees. (R,S)
5. I can identify and interpret basic welding symbols. (K,S)
6. I can draw welding symbols for given specifications. (S)
7. I can interpret a welding print and welding procedure specifications. (R,S)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (S,R,P)

Wood Technology 1

Grades 9-12

Units of Credit: One Semester (Elective)

Prerequisites: None

Course Description:

This course challenges students with problem-solving situations related to wood and wood technology. Basic skills in sawing, planning, drilling, gluing, shaping, finishing and design are demonstrated to students through mass production and teacher-required projects and activities with an emphasis on safety. Current industry standards are introduced. Students develop and use a variety of skills including safe work habits, organization, problem solving, and practical application of woodworking techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, demonstrations, and performance tasks. Students are assessed through observation, performance on tests, quizzes, assigned tasks and projects, and by the quality of work produced.

Topics:

- Measurement Systems
- Care and Use of Hand Tools and Equipment
- Introduction to Safe Use of Portable Power Tools
- Introduction to Safe Use of Woodworking Machines
- Personal Safety in the Woodworking Laboratory
- Introduction to Wood Joinery and Shaping
- Basic Woodworking Terminology
- Wood Identification
- Wood Preparation for Finishing
- Introduction to Wood Finishing
- Woods Technology Career Exploration
- Basic Design and Planning

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)

3. I can evaluate approaches for meeting my goals. (*R*)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (*K*)
2. I can contact my school career counselor or teacher to pursue career pathways. (*S*)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)
3. I can demonstrate the principles of effective group participation and leadership related to citizenship and career preparation. (*S*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can demonstrate knowledge of new and emerging technologies that may affect the field of woodworking. (*S*)
2. I can practice appropriate woodworking techniques based on knowledge of modern equipment and newly developed woodworking processes. (*K,S*)
3. I can select raw materials based on product quality. (*K,R,S*)
4. I can recognize acceptable finished product quality. (*K,S*)
5. I can competently utilize a compass or protractor to accomplish various degree angles for layout and design. (*S*)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate knowledge of the concepts and skills related to health and safety in the workplace. (K,S)
2. I can utilize correct techniques for proper handling of hazardous materials. (K,S)
3. I can use tools, materials, and equipment common to the field of woodworking in a safe manner. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can identify a wood joint cut and name the correct machine to accomplish the task. (K,R,S)
2. I can name the correct grit size sequence to accomplish a desired wood sanding finish. (K)
3. I can choose/change and operate a wood router for a desired profile. (S)
4. I can select goal-relevant activities, rank them, allocate time, and prepare and follow schedules. (R,S)
5. I can use and prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (R,S)
6. I can plan a project with correct machine set-up parameters. (R,S)
7. I can identify a wood joint cut and name the correct machine to accomplish the task. (K,S)
8. I can name the correct grit size progression to accomplish a desired wood sanding finish. (K)
9. I can identify the correct procedure for applying Tung oil or a body finish on a project. (K)
10. I can identify the correct procedures for applying a surface finish on a project. (K)
11. I can use and store chemical finishes appropriately in an appropriate facility. (K)
12. I can program/design and cut using proper safety procedures for the CNC router. (K,R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can maintain hand tools and keep accountable inventory. (K,S)
2. I can select raw materials to use in fabrication of a project. (K,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can plan a project with correct machine set-up parameters. (K,S)
2. I can identify the correct procedure for apply Tung oil or a body finish on a project. (K)
3. I can identify the correct procedures for applying a surface finish on a project. (K)
4. I can apply teamwork and cooperative learning skills. (S)
5. I can develop organizational and time management skills as part of the problem solving process. (S)
6. I can allocate and evaluate time, materials, facilities, and resources to set and achieve goals. (S)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (*S*)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (*R,S,P*)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (*K*)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (*R,S*)
3. I can present my unique project to an authentic audience. (*S,P*)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (*K*)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*R,S,P*)

Wood Technology 2

Grades 10-12

Units of Credit: One Year (Elective)

Prerequisites: Woods Technology 1 and Recommend Drafting 1

Course Description:

Wood Technology 2 emphasizes a combination of advanced machine operations and wood technology. Students are presented with various problems for which they must conceptualize the solution, then design and build the final product. Students study advanced furniture design and cabinetmaking. Research practice and advanced application of material and machine processes are conducted. Extensive and intricate projects are completed. Current industry standards are introduced. Students develop and use a variety of skills including safe work habits, organization, problem solving, and practical application of woodworking techniques. Students engage in a variety of learning activities including lecture and note taking, research, individual projects, demonstrations, and performance tasks. Students are assessed through observation and measurement of performance on tests, quizzes, assigned tasks and projects, and by the quality of work produced.

Topics:

- Measurement Systems
- Maintenance and Use of Hand Tools and Equipment
- In-Depth Use of Portable Power Tools
- Application of Advanced Techniques to the Use of Woodworking Machines
- Personal Safety in the Woodworking Laboratory
- Introduction to Wood Joinery and Shaping
- Advanced Woodworking Terminology
- Wood Identification
- Wood Preparation for Finishing
- Advanced Techniques in Wood Finishing
- Inventory of Woods Technology Careers
- Advanced Design and Planning
- Line Production

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can set up tools, machines, and equipment to manufacture or produce solutions to problems. (*S*)
2. I can develop, read and interpret woodworking project plans. (*R,S*)
3. I can identify skills and knowledge of advanced power equipment, materials, and processes in related careers. (*K,S*)
4. I can apply teamwork and cooperative learning skills. (*S*)
5. I can select goal-relevant activities, rank them, allocate time, and prepare and follow

schedules. (R,S)

6. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (R,S)
7. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
8. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (S)
9. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. (R,S)
10. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. (R,S)
11. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. (R,S)
12. I can listen for, receive, interpret and recall specific details and instructions in conversations and group meetings. (R,S)
13. I can respond appropriately during conversations, uses proper language etiquette, speaks clearly and directly, and uses correct technical vocabulary. (K,S)
14. I can locate and demonstrate understanding of written technical and non-technical information necessary for completion of task or project. (S)
15. I can use proper business or technical writing styles, take effective notes, and complete written assignments legibly, completely, and accurately. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can utilize correct techniques for proper handling of hazardous materials. (K,S)
2. I can apply advanced woodworking skills in a working environment. (S)
3. I can evaluate and apply knowledge of the concepts and skills related to health and safety in the workplace. (K,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can produce work of the highest quality possible. (S)
2. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (K,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can develop and justify organizational and time management skills as part of the problem-solving process. (R,S)
2. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can demonstrate application of appropriate woodworking techniques based on knowledge of modern equipment and newly developed woodworking processes. (S)

2. I can apply critical-thinking strategies to the analysis and evaluation of potential wood design and fabrication activities. *(R,S)*
3. I can use cross-curricular resources and knowledge to develop solutions to problems. *(R,S)*
4. I can utilize knowledge and resources to create innovative solutions and ideas. *(R,S)*
5. I can use information related to woods technologies as it applies to continuing education, vocational, avocational, and career decisions. *(S)*
6. I can observe and summarize the career opportunities for a person with woodworking skills. *(S)*
7. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. *(R,S)*
8. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). *(R,S)*
9. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). *(R,S)*
10. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. *(R,S)*
11. I can solve linear equations. *(S)*
12. I can use basic operations with real numbers. *(S)*
13. I can use fractions, decimals, and percents. *(S)*
14. I can use ratios and proportions. *(S)*
15. I can apply coordinate geometry. *(S)*
16. I can apply vocabulary and formulas of two-dimensional geometric shapes. *(S)*
17. I can use vocabulary and formulas of three-dimensional geometric shapes. *(S)*
18. I can build upon the principles of effective group participation and leadership related to workplace hierarchy. *(S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines,

rubrics). (*R*)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (*Type*):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. (*S,R,P*)

Wood Technology 3

Grades 11-12

Units of Credit: One Year (Elective)

Prerequisites: Wood Technology 2 and Recommend Drafting 1, or Consent of Instructor

Course Description:

Wood Technology 3 emphasizes a combination of advanced machine operations, millwork, cabinetry, and basic residential construction methodology. Students improve their skills related to the aforementioned areas of study. The course promotes strong work ethics, communication skills, problem solving, teamwork, and continued skill development in the construction trades. Current industry standards are introduced. Students develop and use a variety of skills including safe work habits, organization, problem solving, and practical application of construction techniques. Students engage in a variety of learning activities including lecture, note taking, research, individual projects, demonstrations, and performance tasks. Student achievement is measured in a variety of ways. Written, oral, and performance tests are administered. In addition, student projects and behavior are evaluated using criteria specified by teacher/industry standards.

Topics:

- Measurement Systems
- In-Depth Use of Portable Power Tools
- Personal Safety
- Advanced Design and Planning
- Plan and Blueprint Interpretation
- Advanced Woodworking Terminology
- Wood Identification
- Wood Preparation for Finishing
- Advanced Techniques in Wood Finishing
- Inventory of Woods Technology Careers
- Advanced Design and Planning
- Line Production

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web

resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)

2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (K)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (R)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management).

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (R,S)
2. I can document financial inputs and outputs. (S)
3. I can identify the necessity to maintain accurate financial records. (K)
4. I can stay within a fixed budget. (S,P)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (R)
2. I can prioritize resources, equipment and tasks. (R)
3. I can reflect upon completion. (K)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (S)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (K)
2. I can maintain the tools of the trade. (S)
3. I can maximize the use of my resources. (S)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can arrive on time for class and work. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (*S*)
2. I can contribute to my community in a positive manner. (*S,P*)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (*K,S*)
2. I can persevere through set backs and stay focused on my goals. (*S*)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (*K,S*)
2. I can demonstrate communication skills that contribute to positive relationships. (*S*)
3. I can work to understand diverse points of view. (*R*)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (*S*)
2. I can effectively communicate verbally through collaborative projects. (*S,P*)
3. I can develop quality written professional communications. (*P*)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can set up tools, machines, and equipment to manufacture or produce solutions to problems. (*S*)
2. I can demonstrate application of appropriate woodworking/construction techniques based on knowledge of modern equipment and newly developed woodworking/construction processes. (*S*)
3. I can develop, read and interpret project plans and blueprints. (*R,S*)
4. I can apply advanced woodworking/construction skills in a working environment. (*S*)
5. I can apply teamwork and cooperative learning skills. (*S*)
6. I can produce work of the highest quality possible. (*S*)
7. I can select goal-relevant activities, rank them, allocate time, and prepare and follow

schedules. (R,S)

8. I can use or prepare budgets, make forecasts, keep records, make adjustments to meet objectives, and evaluate financial records. (R,S)
9. I can assess skills and distribute work accordingly; evaluate performance and provide feedback toward the accomplishment of personal and team goals. (R,S)
10. I can practice various roles required as a member of an effective team while recognizing individual differences and cultural diversity. (S)
11. I can practice and evaluate negotiating process including researching, goal setting, presenting, listening, clarifying, adjusting and compromising. (R,S)
12. I can organize, process, analyze, and maintain written and computerized records and other forms of information using systematic methods. (R,S)
13. I can acquire, organize, communicate, process, analyze and evaluate information from print and electronic sources. (R,S)
14. I can listen for, receive, interprets and recall specific details and instructions in conversations and group meetings. (R,S)
15. I can respond appropriately during conversations, uses proper language etiquette, speaks clearly and directly, and uses correct technical vocabulary. (R,S)
16. I can locate and demonstrate understanding of written technical and non-technical information necessary for completion of task or project. (S)
17. I can use proper business or technical writing styles, take effective notes, and complete written assignments legibly, completely, and accurately. (S)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can utilize correct techniques for proper handling of hazardous materials. (S)
2. I can evaluate and apply knowledge of the concepts and skills related to health and safety in the workplace. (R,S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can apply critical-thinking strategies to the analysis and evaluation of project design and fabrication activities. (R,S)
2. I can allocate and evaluate time, materials, facilities and resources to set and achieve goals. (R,S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can practice and evaluate positive service skills (e.g., resolving misunderstanding, consumer complaints). (R,S)
2. I can follow maintenance procedures outlined in equipment manuals. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can use cross-curricular resources and knowledge to develop solutions to problems. (R,S)
2. I can utilize knowledge and resources to create innovative solutions and ideas. (R,S)

3. I can develop and justify organizational and time management skills as part of the problem-solving process. *(R,S)*
4. I can demonstrate and teach a learned skill including performance evaluation of self and others in this process. *(S)*
5. I can communicate ideas to justify position, persuade and convince others, and responsibly challenge existing procedures and policies. *(R,S)*
6. I can gather, compile and analyze data from a variety of sources, and evaluate relevance and accuracy in making informed decisions in the workplace. *(R,S)*
7. I can select, analyze, and present information using a variety of methods (e.g., oral, written, graphic, pictorial, multimedia). *(R,S)*
8. I can solve linear equations. *(S)*
9. I can use basic operations with real numbers. *(S)*
10. I can use fractions, decimals, and percents. *(S)*
11. I can use ratios and proportions. *(S)*
12. I can apply coordinate geometry. *(S)*
13. I can apply vocabulary and formulas of two-dimensional geometric shapes. *(S)*
14. I can use vocabulary and formulas of three-dimensional geometric shapes. *(S)*

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. *(S)*
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. *(R,S,P)*

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. *(K)*
2. I can demonstrate the concepts of entrepreneurship through a unique project. *(R,S)*
3. I can present my unique project to an authentic audience. *(S,P)*

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. *(K)*
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). *(R)*

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic product within budget constraints. *(S,R,P)*

Industrial Technology

Independent Study/Work Experience

Grades 11 & 12

Units of Credit: One Semester or One Year (Elective)

Prerequisites: Consent of Instructor and 2-3 Industrial Technology courses in logical sequence

Course Description:

Rapid advances in technology, business, health, science, trades, and industry have created new career opportunities and demands. Career and Technical Education courses provide the knowledge, skills, and technologies required for employment in several broad systems. Students need to develop knowledge of the concepts and skills related to individual career concentrations in order to apply them to personal/career development. Career and Technical Education depends on and supports the integration of academic, career, and technology knowledge and skills. To prepare students for success, students must have opportunities to reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepares students for success.

In collaboration with the teacher and a related professional mentor, students will develop a school and/or workplace-based learning activity that provides an in-depth study of at least one aspect of a selected business or industry.

NOTE: Throughout this document, learning target types are identified as knowledge (“K”), reasoning (“R”), skill (“S”), or product (“P”).

STANDARD 1: Students experience various career opportunities and assess personal career pathways.

Benchmark 1:

Explore and identify personal interests, aptitudes, and abilities and develop strategies to achieve tentative career goals.

Learning Targets (Type):

1. I can use Montana Career Information Systems (MCIS) and/or other systems or web resources to investigate and evaluate my personal interests, aptitudes and abilities. (S)
2. I can formulate tentative career goals. (R)
3. I can evaluate approaches for meeting my goals. (R)

Benchmark 2:

Utilize local resources to research career plans.

Learning Targets (Type):

1. I can identify local resources to develop career plans. (K)
2. I can contact my school career counselor or teacher to pursue career pathways. (S)

Benchmark 3:

Recognize the interrelationships of family, community, career, and leisure roles.

Learning Targets (Type):

1. I can describe the importance of balance between family and community in regards to career and leisure activities. (*K*)
2. I can compare and contrast the needs of career and leisure activities and how they relate to and/or affect family and community. (*R*)

STANDARD 2: Students demonstrate an understanding and apply principles of Resource Management (i.e., financial, time, personal management)

Benchmark 1:

Prepare a budget and keep financial records.

Learning Targets (Type):

1. I can research and report cost of materials and time. (*R,S*)
2. I can document financial inputs and outputs. (*S*)
3. I can identify the necessity to maintain accurate financial records. (*K*)
4. I can stay within a fixed budget. (*S,P*)

Benchmark 2:

Prioritize, allocate time, prepare and follow schedules to complete a project.

Learning Targets (Type):

1. I can estimate the required time to complete a project. (*R*)
2. I can prioritize resources, equipment and tasks. (*R*)
3. I can reflect upon completion. (*K*)

Benchmark 3:

Apply appropriate time to task.

Learning Targets (Type):

1. I can implement a time schedule for task completion. (*S*)

Benchmark 4:

Use physical resources wisely to accomplish a goal.

Learning Targets (Type):

1. I can identify the resources necessary to accomplish the task. (*K*)
2. I can maintain the tools of the trade. (*S*)
3. I can maximize the use of my resources. (*S*)

STANDARD 3: Students acquire and utilize personal and leadership skills to become successful, productive citizens.

Benchmark 1:

Demonstrate active leadership skills by participation in group activities and projects.

Learning Targets (Type):

1. I can investigate various leadership styles. (*R*)
2. I can apply leadership styles in group activities and projects. (*R*)

Benchmark 2:

Demonstrate positive personal and work ethics.

Learning Targets (Type):

1. I can show up for class and work on time. (*S*)
2. I can develop personal and work related goals. (*K,P*)
3. I can describe ethical behavior in the workplace. (*K*)

Benchmark 3:

Demonstrate skills to be a productive citizen.

Learning Targets (Type):

1. I can develop professional relationships with community members. (S)
2. I can contribute to my community in a positive manner. (S,P)

Benchmark 4:

Apply self-esteem building practices.

Learning Targets (Type):

1. I can define and provide evidence of my strengths in my career interest areas. (K,S)
2. I can persevere through set backs and stay focused on my goals. (S)

Benchmark 5:

Demonstrate appreciation for diverse perspective needs and characteristics.

Learning Targets (Type):

1. I can develop a working relationship with diverse populations. (K,S)
2. I can demonstrate communication skills that contribute to positive relationships. (S)
3. I can work to understand diverse points of view. (R)

Benchmark 6:

Practice several methods of effective communication.

Learning Targets (Type):

1. I can demonstrate good listening skills. (S)
2. I can effectively communicate verbally through collaborative projects. (S,P)
3. I can develop quality written professional communications. (P)

STANDARD 4: Students acquire and demonstrate current technical skills leading to an occupation.

Benchmark 1:

Practice technical skills and procedures required for an occupation.

Learning Targets (Type):

1. I can perform roles related to my chosen field during my work experience. (S)
2. I can practice positive service skills. (S)
3. I can demonstrate advanced skills related to my study through creation of a project. (S,P)
4. I can manage the time and resources I need to complete my project. (K,S)
5. I can analyze how this project related to my future plans. (R)
6. I can incorporate communication, math, and science knowledge and skills into my project. (S,P)

Benchmark 2:

Practice safe and appropriate use of technology.

Learning Targets (Type):

1. I can demonstrate safe use of technology during my work experience/independent study, as defined by my mentor. (S)

Benchmark 3:

Select the appropriate tools, equipment, and procedures for the task.

Learning Targets (Type):

1. I can present my project or independent study results using appropriate tools. (S)

Benchmark 4:

Manage and maintain technological tools and follow troubleshooting protocol.

Learning Targets (Type):

1. I can follow directions given by my mentor to appropriately utilize tools associated with my

study. (S)

Benchmark 5:

Apply technical information to a variety of sources.

Learning Targets (Type):

1. I can explain how my school courses relate to my independent study/work experience. (K,R)

STANDARD 5: Students know and demonstrate the requirements of the workplace through authentic application.

Benchmark 1:

Practice and demonstrate academic and technical skills to a workplace setting.

Learning Targets (Type):

1. I can practice, and demonstrate my technical workplace skills in my school lab. (S)
2. I can research, write and present on the technical content utilizing academic skills found in workplace settings. (R,S,P)

Benchmark 2:

Apply the concepts of entrepreneurship.

Learning Targets (Type):

1. I can explain the concepts of entrepreneurship. (K)
2. I can demonstrate the concepts of entrepreneurship through a unique project. (R,S)
3. I can present my unique project to an authentic audience. (S,P)

Benchmark 3:

Identify possible outcomes and consequences of decisions.

Learning Targets (Type):

1. I can identify possible consequences of carelessness and horseplay. (K)
2. I can explain potential outcomes of not following directions, (i.e. safety, guidelines, rubrics). (R)

Benchmark 4:

Use acceptable industry standard equipment in a school setting.

Learning Targets (Type):

1. I can successfully use acceptable industry standard equipment to produce an authentic produce within budget constraints. (S,R,P)

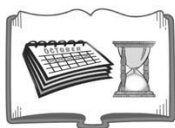
▶ APPENDICES ◀

- I MCPS Comprehension Strategies
- II Montana Career Fields Model
- III Adopted Materials (2006)

APPENDIX I

Comprehension Strategies

Proficient readers use these strategies before, during and after reading:



Activate Background Knowledge

- What do you already know about this topic?
- What connections(schema) can you make to your life, the world or other things you have read?



Ask Questions

- What do you want to know about this topic?
- What questions come up as you read?



Infer

- What background knowledge and explicit information from the text are you using to make meaning?
- What questions come up as you read?



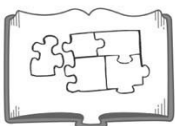
Determine Importance

- What words, sentences, ideas, and themes are especially important?
- What is the big picture, the main idea?



Make Mental Images

- What images come to mind as you read?



Synthesize

- What inferences and key concepts are you putting together to deepen your understanding?



Monitor Comprehension

- Where does your comprehension break down?
- What causes the difficulty?
- How can you fix it?

- ✓ Reread
- ✓ Read ahead
- ✓ Use Context Clues
- ✓ Restate
- ✓ Research
- ✓ Check Pictures & Graphics
- ✓ Use Decoding Strategies (Sound it out)



APPENDIX II

http://www.opi.mt.gov/PDF/CTE/09MTCareer_Clusters.pdf

Montana Career Fields Model

Human Services & Resources

- **Law, Public Safety and Security Cluster**
Pathways: Correction Services, Legal Services, Emergency and Fire Management Services, Security and Protective Services, Law Enforcement Services
- **Government and Public Administration Cluster**
Pathways: Governance, National Security, Foreign Service, Planning, Revenue and Taxation, Regulation, Public Management and Administration
- **Human Services Cluster**
Pathways: Consumer Services, Early Childhood Development and Services, Counseling and Mental Health Services, Family and Community Services, Personal Care Services
- **Education and Training Cluster**
Pathways: Administration and Admin Support, Teaching and Training, Professional Support Services

Agriculture, Food and Natural Resources

- **Agriculture, Food, & Natural Resources Cluster**
Pathways: Plant Systems, Animal Systems, Power Structural and Technical Systems, Natural Resource Systems, Environmental Service Systems, Agribusiness Systems, Food Products and Processing

Business, Management & Information Systems

- **Marketing, Sales, and Services Cluster**
Pathways: Management and Entrepreneurship, Professional Sales and Marketing, Buying and Merchandising, Marketing Communications and Promotion, Marketing Info. Mgmt. and Research, Dist. and Logistics, E-Marketing
- **Business, Management and Admin. Cluster**
Pathways: Management, Business Financial Management and Accounting, Human Resources, Business Analysis, Marketing, Administration and Information Support
- **Hospitality and Tourism Cluster**
Pathways: Lodging, Travel and Tourism, Recreation Amusement and Attractions, Restaurant and Food/Beverage Services
- **Finance Cluster**
Pathways: Financial and Investment Planning, Business Financial Management, Insurance Services, Banking and Related Services
- **Information Technology Cluster**
Pathways: Programming/Software Dev., Network Systems Information and Support Services, Interactive Media

Arts & Communications

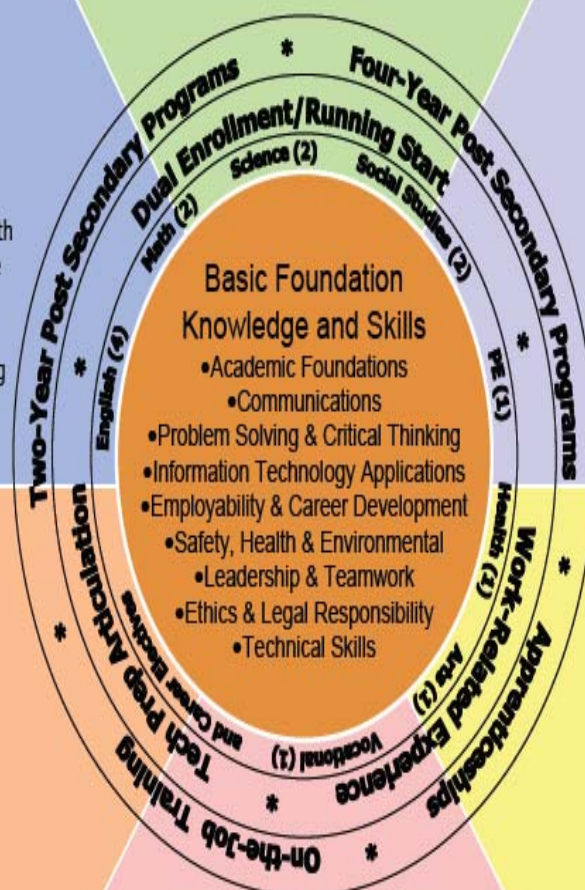
- **Arts, A/V Technology and Communications Cluster**
Pathways: Performing Arts, Audio and Video Technology and Film, Visual Arts, Journalism and Broadcasting, Printing Technology, Telecommunications

Health Sciences

- **Health Science Cluster**
Pathways: Therapeutic Services, Diagnostic Services, Support Services, Health Informatics, Biotechnology Research and Development

Industrial, Manufacturing & Engineering Systems

- **Manufacturing Cluster**
Pathways: Production, Health Safety and Environmental Assurance, Manufacturing Production Process Development, Maintenance Installation and Repair, Quality Assurance, Logistics and Inventory Control
- **Transportation, Distribution & Logistics Cluster**
Pathways: Logistics, Planning and Management Services, Transportation Services, Trans. System Infrastructure, Health Safety and Environmental Mgmt., Facility & Mobile Equipment Maintenance
- **Architecture and Construction Cluster**
Pathways: Construction, Maintenance Options, Design/Pre-Construction
- **Science, Technology, Engineering & Mathematics Cluster**
Pathways: Engineering and Technology, Science and Math



APPENDIX III

Adopted Materials

Agriculture Education Course	Instructional Materials	Publisher	Copyright	ISBN #
Introduction to Animal & Plant Science	Agricultural Mechanics, 6 th Ed.	Cengage	2010	9781435400979
Ag-Ed 2, 3, 4	Animal Science Biology and Technology, 3 rd Ed.	Cengage	2011	9781435486379
Applied Veterinary Science	Introduction to Veterinary Science, 2 nd Ed.	Cengage	2009	9781428312258
Business & Marketing Course	Instructional Materials	Publisher	Copyright	ISBN #
Middle School Keyboarding & Computer Literacy	Microtype 5 Checkpro Dreamteam (Sports) CEO Apprentice Frillo's Pizza	Cengage B.E. Publishing Biz in a Boxx B.E. Publishing		9780538449830 1934422096 193442207X
Business Essentials	Business Finance	Cengage	2008	9780538445078
Accounting 1	Century 21 Accounting Multicolumn Journal	Cengage	2012	9781111988661
Accounting 2	Century 21 Accounting Advanced 9 th Ed.	Cengage	2012	9781111989057
Graphic Design 2	The Design Collection Revealed: Adobe CS5 InDesign, Photoshop, and Illustrator	Cengage		1111874395
Personal Finance	Personal Financial Literacy 2 nd Ed.	Cengage	2012	9780840058294
Digital Film 1	The Video Collection Revealed: Adobe CS5 Premier Pro, After Effects, SoundBooth and Encore	Cengage		1111874417
Street Law	Street Law: A Course in Practical Law 7 th Ed.	McGraw-Hill Glencoe	2005	0078600200
Web Design	The Web Collection Revealed, Standard Ed: Adobe CS5 Dreamweaver, Flash, and Fireworks	Cengage		1111981825
Family & Consumer Science Course	Instructional Materials	Publisher	Copyright	ISBN #
Middle School Family & Consumer Science	Discovering Food & Nutrition Discovering Life Skills 2 nd Ed	McGraw-Hill Glencoe	2005 2007	0078616824 9780078744631
Culinary Arts 1	Food for Today	Glencoe	2010	9780078954504
Culinary Arts 2	Culinary Essentials	McGraw-Hill	2010	9780078954276
Culinary Arts 3	Professional Cooking, 7 th Ed. HACCP-A Basic Understanding DVD	Peoples Education CEV Multimedia	2011	9780470197523 9781595356970

Early Childhood 1	The Developing Child	McGraw-Hill	2010	9780078883606
Early Childhood 2	Child Care Today: Becoming an Early Childhood Professional	McGraw-Hill	2012	9780076591053
Fashion Design & Merchandising	Fashion Marketing	McGraw-Hill Glencoe	2006	0078682959
Hospitality, Tourism, & Recreation 1, 2	Hospitality & Tourism	McGraw-Hill Glencoe	2006	0078682967
Housing & Living Environments	Homes & Interiors Interior Design Project: Green Design DVD Eye For Design DVD Elements & Principles of Design PP	Glencoe Meridian Ed. Learning Seed CEV Multimedia	2007	9780078744204 EDP41271 LS114306 9781595356970
Nutrition & Wellness	Nutrition & Wellness	Glencoe		
Prep for Life	Creative Living Skills Love Notes Life in the United States Body Language 1: Beyond Words DVD Design PowerCourse CD-ROM Set: Styles of American Furniture, Visual Design Basics, Color For Interior Design Eye for Design DVD	McGraw-Hill Dibble Institute Family Economics & Financial Learning Seed	2006	007861581X LN-1 LS116508 LS902508 LS114306
Street Law	Street Law: A Course in Practical Law, 7 th Ed.	McGraw-Hill Glencoe	2005	0078600200
Textiles & Apparel 1	Successful Sewing	Goodheart-Willcox	2008	9781590708255
Textiles & Apparel 2	Entrepreneurship & Small Business Management	Glencoe McGraw-Hill	2006	9780078613036
Health Sciences Course	Instructional Materials	Publisher	Copyright	ISBN #
Health Sciences 1, 2, 3	Health Science Fundamentals	Pearson	2009	9780136059929
Industrial Technology Course	Instructional Materials	Publisher	Copyright	ISBN #
3-D Modeling & Animation	Modern Graphics Communications, 5 th Ed.	Prentice Hall	2011	9780132769358
Applied Technology 1	Introduction to Technology	McGraw-Hill	2010	9780078797859
Applied Technology 2	Technology Engineering & Design Applications: STEM	Glencoe McGraw-Hill	2008	9780078768095
Basic Electricity/Electronics 1	Electricity & Electronics Set of 10 DVDs	Goodheart-Willcox	2006	EES10
Building Trades 1	Modern Carpentry 11 th Ed.	Goodheart-	2008	9781590706480

	Arc Welding 2 DVD GMAW (MiG) Wire Feed DVD Flux Core Arc Welding DVD Blueprint Reading for Welders, 8 th Ed. Motorbooks Workshop How to Weld	Cengage Motorbooks	2010 2008	9781428335288 9780760331743
Welding Technology 2	Welding Technology Fundamentals, 4 th Ed.	Goodheart-Willcox	2010	97816052568
Wood Technology 1	Modern Woodworking, 11 th Ed.	Goodheart-Willcox	2006	9781590704813
Wood Technology 3	Modern Cabinetmaking, 4 th Ed.	Goodheart-Willcox	2005	9781590703762

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