

High School of Business Courses (Students must be enrolled in the High School of Business Program.)



By MBAResearch

High School of Business - Principles of Business

9th

0.5 Credit



This project-based business course develops student understanding and skills in such areas as business law, economics, financial analysis, human resources management, information management, marketing, operations, and strategic management. Through the use of projects, students acquire an understanding and appreciation of the business world. They develop a business analysis report, conduct an environmental scan of the local business community, and investigate business activities. Current technology will be used to acquire information and to complete the projects. Throughout the course, students are presented problem-solving situations for which they must apply academic, critical-thinking, and financial literacy skills. Formal performance evaluations and self-reflections are an on-going component of the course.

Front Range College Credits



Introduction to Business (BUS 115) - Focuses on the operation of the American Business System. Covers fundamentals of the economy, careers and opportunities, marketing, management, production, governmental regulations, tools of business and social responsibilities. (3 college credits)

Counseling Notes:

Membership fee for DECA is required (\$22.00)



By MBAResearch

High School of Business - Business Economics

9th

0.5 Credit



This project-based business course develops student understanding and skills in economics, entrepreneurship, operations, and professional development. Through the use of six engaging projects, students acquire an understanding and appreciation of economic decision-making in the business world as well as augmenting their knowledge of entrepreneurial contributions. Current technology will be used to acquire information and to complete the projects. Throughout the course, students are presented problem-solving situations for which they must apply academic, critical-thinking skills, and financial literacy skills. Formal reflection and peer feedback are on-going components of the course.

Counseling Notes:

Membership fee for DECA is required (\$22.00)

High School of Business - Principles of Marketing



By MBAResearch

10th

0.5 Credit



This project-based business course develops student understanding and skills in such areas as channel management, marketing-information management, market planning, pricing, product/service management, promotion, and selling. Through the use of seven projects, students acquire an understanding and appreciation of marketing activities. Current technology will be used to acquire information and to complete the projects. Throughout the course, students are presented problem-solving situations for which they must apply academic and critical-thinking skills. Formal reflection is an on-going component of the course.

Front Range College Credits



Principles of Marketing (MAR 216) - Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to business and the individual consumer. (3 college credits)

Counseling Notes:

Membership fee for DECA is required (\$22.00)



High School of Business - Principles of Finance 10th

0.5 Credit

Principles of Finance furthers student understanding of two specific business activities—accounting and finance—that were introduced in an earlier *High School of Business* course, *Principles of Business*. Through team activities and a semester-long corporate investment project, students make connections between accounting and finance. Students acquire an understanding of financial statements, calculate financial ratios, and make corporate financial management decisions based on their analysis of that financial data. In addition, students apply the concepts of operating and overhead costs, internal accounting controls, and budgets to their class business. Lastly, cost/benefit analysis is introduced as an element of financial planning and decision-making.

Counseling Notes:

Membership fee for DECA is required (\$22.00)



High School of Business Principles of Management

11th Grade

0.5 Credit

Principles of Management furthers student understanding of management that was introduced in an earlier High School of Business™ course, Principles of Business. This course teaches student Project Management concepts. Through individual and team activities and a semester-long project, students make connections between management and business success. Students acquire an understanding of legal and ethical issues associated with management; initiate, plan, implement and control, and close a project; motivate team members; delegate work; develop a chain of command; coordinate work efforts; and interpret statistical findings.

Front Range College Credits



Principles of Management (MAN 226) - Presents a survey of the principles of management. Emphasis is on the primary functions of planning, organizing, leading and controlling with a balance between the behavioral and operational approach. (3 college credits)

Counseling Notes:

A membership fee for DECA is required (\$22.00)





HSB Business Strategies

11th Grade

0.5 Credit



This project-based business course develops student understanding and skills in such areas as business law, entrepreneurship, financial analysis, human resources management, and strategic management. By planning, organizing, staffing, directing, leading, and controlling business activities, students acquire a realistic understanding of what is required to open and successfully run a business. They conduct situational, market, and competitive analyses; select a target market; develop a business plan; recruit, interview, select, and hire staff; supervise staff; control the use of resources, and evaluate the results of the business effort. Throughout the course, students make decisions and use problem-solving skills. Formal reflection is an ongoing component of the course.

-Students have the opportunity to earn a Small Business Management certificate.

-Students are required to complete an internship.

***High School of Business Internship Course Guide**

The High School of Business™ Internship requirement allows students the opportunity to see first-hand how business executives function, interact, and put into use the concepts taught in the High School of Business™ program. Students are required to observe a business professional for a minimum of 20 hours. Students may choose the area of business or career they observe. The Business Strategies instructor will coordinate 10 of the internship hours and the student is required to coordinate the additional 10 hours.

Counseling Notes:

A membership fee for DECA is required (\$22.00)



Business Communication (Semester 1) and International Marketing (Semester 2)

12th grade

1.0 Credit



Prerequisite: Successful completion of Strategic Marketing/Consumer Behavior or 3 years of High School of Business Pathway



Learn how to communicate in business! This class will help teach you the skills you will need to be an effective communicator. First semester, business communication will provide you skills you need to be successful in college and the 21st century. International Marketing will explore international business and marketing. During the first semester, students will have fun planning to take a product or service of their choice to a foreign country as they learn how to write the DECA International Business Plan. The course is designed to make the reader an "informed observer" of the global marketplace as well as enable them to develop skills to make marketing decisions in a global context. They will also learn presentational speaking skills and concepts through delivering speeches. Students will also learn effective business writing by creating business documents and white papers. Includes the fundamentals of business communication and an introduction to international communication. Students will learn about international affairs, culturally adaptable marketing, cultural diversity and customs, international marketing research, international trade while applying international projects, and teamwork. This year-long class is for students interested in getting college credit from UCD. The class will carry 6 semester hours of credit from UCD and will have extensive speeches, note-taking, reading, and writing assignments. The class is team-taught with a professor from UCD. Marketing students are encouraged to participate in the many DECA activities provided to them throughout the year. UCD college credit may be purchased at a cost to be determined by UCD each semester (3 credits each semester).

Counseling Notes:

A membership fee for DECA is required (\$22.00)

Business and Marketing Courses

Business and Marketing Education is a career and technical program designed for students who are interested in or preparing to enter occupations that require skills in areas such as marketing, social media management and marketing, accounting, business management, entrepreneurship, event management, fashion, finance, logistics and supply chain management, management, personal finance, product development, project management, procurement, sales, sports and entertainment marketing, and small business ownership.

DECA, the business club for students enrolled in business courses, provides many opportunities for developing leadership, marketing and business skills through participation in local, regional and national conferences. A variety of club activities, some social and others encouraging community involvement, take place each year. Students have the opportunity to earn Work-Based Learning credit while participating in the Business/Marketing program. Students enrolled in any business class are required to pay \$22.00 in annual membership dues to affiliate with the state and national DECA organizations.

College Credit Opportunities

Several of the business courses offer the opportunity to earn college credits (during high school) through Front Range Community College and University of Colorado, Denver. Look for the Front Range and CU logos for classes that offer college credit.



Business Communication (Semester 1) and International Marketing (Semester 2)

12th grade

1.0 Credit

Prerequisite: Successful completion of Strategic Marketing/Consumer Behavior or 3 years of High School of Business Pathway



*Preferential placement is given to High School of Business students. Learn how to communicate in business! This class will help teach you the skills you will need to be an effective communicator. First semester, business communication will provide you skills you need to be successful in college and the 21st century. International Marketing and Business will will teach students about the finer points of business and marketing on an international level. This course is ideal for the student who wishes to explore international business and marketing U.S. products and to explore the increasingly competitive international environment and recent changes in the environment that have challenged U.S. business. The course is designed to teach an informed observer of the global marketplace as well as enable them to develop skills to make marketing and business decisions in a global context. During the first semester, students will have fun planning to take a product or service of their choice to a foreign country as they learn how to write the DECA International Business Plan. The course is designed to make the reader an "informed observer" of the global marketplace as well as enable them to develop skills to make marketing decisions in a global context. Students will also learn presentational speaking skills and concepts through delivering speeches. Students will also



learn effective business writing by creating business documents and white papers. Includes the fundamentals of business communication and an introduction to international communication. Students will learn about international affairs, culturally adaptable marketing, cultural diversity and customs, international marketing research, international trade while applying international projects, and teamwork. This year-long class is for students interested in getting college credit from UCD. The class is being offered in cooperation with the University of Colorado Denver. The class will carry 6 semester hours of credit from UCD and will have extensive speeches, note-taking, reading, and writing assignments relating to Marketing and Economics. The class is team-taught with a professor from UCD. Marketing students are encouraged to participate in the many DECA activities provided to them throughout the year. UCD college credit may be purchased at a cost to be determined by UCD each semester (3 credits each semester).

Counseling Notes:

A membership fee for DECA is required (\$22.00)

Introduction to Business (Semester 1) and Principles of Marketing A (Semester 2)



10th, 11th and 12th grade

1.0 Credit

Want to learn more about business and marketing in a hands-on, project-based environment? Learn real world skills for the 21st century workplace? If so, this class is for you! This class will help you understand how businesses work, no matter what field you want to work in some day. Students will learn how marketers deliver value in satisfying customer needs and wants, determine which target markets the organization can best serve, and decide upon appropriate products, services, and programs to serve these markets. Topics include branding and product development, pricing strategies, marketing research, promotion, supply chain management and service marketing. This course introduces the application of fundamental business principles to local, national, and international forums. It also examines the relationship of economic systems, governance, regulations, law, and ethics within business operations. Marketing students are strongly encouraged to participate in the many DECA activities provided to them throughout the year where they learn resume worthy leadership and social skills..

Counseling Notes:

A membership fee for DECA is required (\$22.00)

Introduction to Entrepreneurship Semester 1 & Small Business Management (Principles of Management) Semester 2



12th grade

1.0 Credit

Prerequisite: Successful completion of Strategic Marketing/Consumer Behavior. *Priority will be given to students currently enrolled in the High School of Business program.*



Have you ever thought about owning your own business? This course introduces students to the rewards and risks of owning, operating, and managing a business enterprise. Emphasis is placed on the mastery of skills needed to plan, organize, manage, and finance a small business. Students will acquire these concepts through development of a business plan. The course also explores both traditional and lean business planning as a means to establish strategic vision and direction for a business. This course assesses the strengths and weaknesses of a business concept and includes identifying external and environmental factors related to business ownership and evaluating various resources available for funding small businesses This course also provides an overview of the small business management (Principles of Management). Emphasis is on the primary functions of planning, organizing, staffing, leading and controlling with a balance between the behavioral and operational approaches. This year-long class is for students interested in getting college credit from UCD. The class is being offered in cooperation with the University of Colorado Denver. The class will carry 6 semester hours of credit from UCD and will have extensive note-taking, reading, and writing assignments. The class is team-taught with a professor from UCD. Marketing students are encouraged to participate in the many DECA activities provided to them throughout the year. UCD college credit may be purchased at a cost to be determined by UCD each semester (3 credits each semester). Students will have the opportunity to earn small business management credit from Front Range Community College. Students have the opportunity to earn a Small Business Management certificate.



Front Range Small Business Management College Credits

Small Business Management - (MAN 0216) This class addresses the unique entrepreneurial experience of conceiving, evaluating, creating, managing, and potentially selling a business. The goal is to provide a solid background with practical application of important concepts applicable to the entrepreneurial environment. In addition to creative aspects, key business areas of finance, accounting, marketing, and management will be

addressed from an entrepreneurial perspective. The course relies on classroom discussion, participation, guest speakers, case analysis, and building a business model to develop a comprehensive strategy for launching and managing a business. Students will need to draw upon their business education and experience, and apply it to the task of launching a new venture. Students are expected to interact with the business community, advisors, be able to work effectively in teams, and be active participants in classroom discussions and exercises. (3 college credits)

Counseling Notes:

- Membership fee for DECA is required (\$22.00)

Personal Finance

9th, 10th, 11th, and 12th

0.5 Credit

Want to learn how to save, invest, plan for college or a career, and build wealth? Personal Finance helps set students up for future financial success. This course is designed to help students understand the impact of individual choices on occupational goals and future earnings potential. The course covers basic personal financial planning concepts and applications including cash flow, net worth, asset selection and purchase, income taxes, insurance, consumer debt, risk management. Students dig into hands-on projects like investment tracking and a virtual balance sheet simulation that teach them how to invest and track money, how to use debt appropriately, and how to achieve and increase net worth. Students also compete in a variety of in class and national simulations to build successful stock portfolios and the highest net worth. Skills learned in this class are transferable to any career and real life.

Counseling Notes:

- Membership fee for DECA is required (\$22.00)



Metropolitan State College of Denver Dual Enrollment College Credits

Personal Financial Planning - (FIN 3150) Students will learn time value of money and how to perform TVM calculations on a financial calculator. Further, students will learn how to formulate short and long term financial plans and how to execute them in order to achieve stated goals. Gain an understanding of basic personal financial statements and learn to determine problem areas within them by looking at ratios. Gain an understanding of various investment vehicles, risks, diversification, asset allocation, mortgage markets, bank borrowing (including credit card debt and student loans), as well as medical, property and casualty insurance policies. Additionally, we will look at investing from the perspective of retirement planning by way of mutual funds and forming portfolios (while examining risks) with stocks and bonds.
(3 college credits)

School-Based Enterprise-Retail

10th, 11th, and 12th grade

0.5 Credit

Prerequisite: Introduction to Business/Principles of Marketing A and Instructor Approval

This semester course provides students with “real world” business management and cash handling experience. Students will be responsible for selecting products, placing products within the store, pricing products, and promoting products. In addition, students will develop and refine customer service skills. A school-based enterprise (SBE) is an entrepreneurial operation in a school setting that provides goods/services to meet the needs of the market. SBEs are managed and operated by students as hands-on learning laboratories that integrate National Curriculum Standards in marketing, finance, hospitality or management.

SBEs provide realistic and practical learning experiences that reinforce classroom instruction. SBEs can sell to consumers through a permanent location, a mobile kiosk or through Internet marketing. Products may include spirit wear, food and beverage items, school supplies, signs and banners and more, while other SBEs provide services such as creative design, advertising sales and more. School-based enterprises are effective educational tools in helping to prepare students for the transition from school to work or college.

Counseling Notes: Allowed to repeat for credit



Social Media for Business

11th and 12th grade

0.5 Credit

Prerequisite: Introduction to Business/Principles of Marketing OR two years of High School of Business

Want to explore how social media is used in business? Then this course is for you! Learn hands-on project based social media techniques on how businesses use social media. This course is the second-level marketing (DECA) course and will earn 3 free college credits through Front Range Community College Through this course, students identify trends in business social-media space, quantify the contribution of social media (metrics and goals, finding what is good, measuring and adjusting on the fly, reporting and sharing insights), learn how to develop a social media plan for a business and develop an integrated approach for social media content creation. Students will foster an understanding and appreciation of ethics and ethical principles using social media, learn how to develop and measure content marketing strategies, and set social media goals and metrics. Students will learn social media strategies through various simulations. Students will earn a **Google Analytics certificate and a HubSpot certificate**. Social media research may need to be conducted outside of the classroom. Marketing students are strongly encouraged to participate in the many DECA activities provided to them throughout the year where they will learn valuable leadership and social skills.



Front Range Social Media for Business College Credits

Social Media for Business - (MAR 1055) Teaches students how to use social media as a business strategy and covers how to match that strategy with the goals of the business. This course addresses current trends, ethics, regulations, legal challenges, strategy, content development, and change management. This course helps students develop a better understanding of how marketing with social media is similar to and different from traditional marketing and how to best use online methods to further business goals. (3 college credits)

Counseling Notes:

A membership fee for DECA is required (\$22.00)

Strategic Marketing Semester 1 & Consumer Behavior Semester 2

11th and 12th grade

1.0 Credit

Prerequisite: Introduction to Business/Principles of Marketing A



Ever wondered why consumers buy products and services? Discover more about consumer psychology through this course. Earn 3 free college credits concurrently with Mountain Range High School credit second semester. This course is the second-level marketing (DECA) course. The course presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion and distribution, and their applications to business and the individual consumer. Along with learning about career opportunities in marketing occupations, students will learn about promotion and advertising, finance and investments, presentation skills, management techniques, sports marketing, and establishing and operating a small business. Marketing concepts are learned and applied using computer simulations. Students will be able to illustrate the connections between a market-driven strategy, customer satisfaction, and profitable growth. Students will also examine how marketing strategies are developed and executed within both small and large organizations. The course will emphasize strategy development, implementation, and evaluation. Marketing students are strongly encouraged to participate in the many DECA activities provided to them throughout the year where they will learn valuable leadership and social skills.



Front Range Consumer Behavior College Credits

Principles of Marketing (MAR 216) - Presents the analysis of theoretical marketing processes and the strategies of product development, pricing, promotion, and distribution, and their applications to business and the individual consumer. (3 college credits)

Counseling Notes:

A membership fee for DECA is required (\$22.00)

Tax Help CO (Semester 1) and Fundamentals of Accounting (Semester 2)

10th, 11th and 12th grade

1.0 Credit

Have you ever wanted to learn how taxes work or learn how to prepare your own tax returns?

1st Semester: The objective of this class is to train students for preparing federal and state income taxes for individuals. They learn an employment skill and provide a service to the community. An emphasis is placed on tax-form preparation using professional tax software. A specially developed curriculum gives the students the necessary tax law knowledge to pass the basic, intermediate, and advanced levels of the IRS certification examination. Emphasis placed on form preparation with the use of tax software. Students need to pass all parts of the IRS certification exam as a course requirement.

2nd Semester: The objective of this class is to train students in the generally accepted accounting principles such as analyzing transactions, journalizing, posting, petty cash, financial statements, and adjusting and closing entries for a sole proprietorship of a service company. Presents basic elements and concepts of accounting with emphasis on the procedures used for maintaining journals, ledgers, and other related records, and for the completion of end-of-period reports for small service and merchandising businesses. In correlation with IRS certification students will need to volunteer 30 hours outside of class to pass the class (ACC 133-Tax Help Colorado Practicum). Students who volunteer 40 hours of their time will get a letter from the Governor, and, if they volunteer 100 hours of their time, they will receive a letter from the President of the United States. The volunteer hours will be completing tax returns for low income families. The practicum allows students to prepare actual federal and state income tax returns for individuals in the real time environment.



Front Range College Accounting Credits

This is a concurrent enrollment class with Front Range Community College. A student has the opportunity to receive Front Range Community College credits.

***Tax Help Colorado Practicum (ACC 133)** - This course allows students to prepare actual federal and state income tax returns for individuals in the real time environment.

***30 Volunteer hours at a tax site required for college credit.**

Counseling Notes:

Membership fee for DECA is required (\$22.00)



Work-Based Learning Credit

Do you have a job and want to earn high school credit for working? Career and Technical Education students are eligible to participate in Work-Based Learning if they are enrolled in a:

- Business/Marketing course,
- Computer and Digital Technologies course,
- Media and Digital Arts Program course, or
- Complete a pre-approved Career and Technical Education pathway.

Through Work-Based Learning, students have the opportunity to apply their knowledge and skills in the workplace. Students identify and apply for employment opportunities that match their skills and interests and align with their CTE courses. The Work-Based Learning Coordinator will sign students up after courses have begun each semester.

General Work-Based Learning Requirements

- Credit / Hours must be earned during the school calendar year of August to May
- 0.5 Credit = 125 hours / 1.0 Credit = 250 hours
- A student cannot earn more than 0.5 credit per semester.
- Students must work the required number of hours in the semester in which they are awarded credit.

Students must contact their instructor and complete a Work-Based Learning Agreement to enroll.

Technology Courses

Computer/Digital Technologies, Media and Digital Arts Programs

This program provides students with a combination of business and technology expertise and employability skills that prepare students to successfully face the challenges and opportunities encountered in today's workplace. Through an active Advisory Committee including members of business and industry, the program is aligned to meet the current demands of today's business organizations. Students have the opportunity to earn Work-Based Learning Credits while participating in the technology course. Students enrolled in Computer/Digital Technologies, Media and Digital Arts courses (with the exception of Introduction to PC Applications and Introduction to Multimedia) are required to pay \$17.00 in annual membership dues to affiliate with the state and national Technology Student Association organization. Opportunities to raise this money with chapter fund-raising activities will be available to students who choose to pay dues using this method.



General Computer and Technology Courses



Intro to PC Applications

9th, 10th, 11th, 12th grade

0.5 Credit

Ever wonder how computers work? How to manipulate and program them to work the way you wish them to? Ever wanted to learn more about how to build and/or utilize computer apps (including drones, robotics, 3D printing, and a variety of software) to serve your purpose, whether in business, art, gaming, or any other personal or professional aspect of life? Well, look no further. Mountain Range has a computer science and technology course for you! This is a computer course for anyone interested in learning about a variety of applications and skills using computers. It is particularly useful for novice computer users, freshman, SPED, and seniors needing credits. Students will receive hands-on experience with a variety of different computer applications including Google Suite applications, typing practice, video production, coding, computer-assisted design, Microsoft applications and digital citizenship. It is a fun, relatively stress-free environment for students who may want to explore one or more of the skills further in a more advanced course later in high school.



Microsoft Office Specialist Certification

9th, 10th, 11th, 12th grade

0.5 Credit

Did you know that Microsoft Specialists on average make upwards of \$70,000 in jobs that require these skills? Did you know that you can get a head start on gaining industry level skills and certifications in Microsoft products here at the Mountain? This course is completely self-paced and designed to prepare students for one or more of the industry level Microsoft Office Specialist exams. Students will demonstrate their knowledge and proficiency in one or more Microsoft programs: Word, Excel, PowerPoint, Access, Outlook, and Expert Word/ Excel. Student receive grades based on the number of certification they earn which can prepare them for jobs or further studies. MS Certification students have access to all certification tests for \$90 (up to \$700 savings off the industry price) as well as access to the Gmetrix preparation interfaces.

Counseling Notes:

Course fee of \$90.00 for the Microsoft Examinations.

Computer Programming Courses



Coding I

9th, 10th, 11th grade

.5 Credit

Ever wonder how computers work? How to manipulate and program them to work the way you wish them to? Ever wanted to learn more about how to build and/or utilize computer apps (including drones, robotics, 3D printing, and a variety of software) to serve your purpose, whether in business, art, gaming, or any other personal or professional aspect of life? Well, look no further. Mountain Range has a computer science and technology course for you! Coding I is a Python course intended to teach students the basics of computer programming. Students begin by learning the history of computing, the impacts it has had, and the impacts it may have. Students explore career opportunities associated with coding.

The course places emphasis on practicing standard programming techniques and learning the logic tools and methods typically used by programmers to create simple computer applications. Upon completion of this course, proficient students will be able to solve problems by planning multi-step procedures; understanding number systems and how they are used in programming; write, analyze, review, and revise programs, converting detailed information from workflow charts and diagrams into coded instructions in a computer language; and will be able to troubleshoot/debug programs and software applications on a computer and/or microcontroller to correct malfunctions and ensure their proper execution.

Counseling Notes:

This course is a recommended prerequisite to AP Computer Science A.

MRHS students are encouraged to take this course at MRHS even though it is available at Bollman.

Possible career opportunities: Computer Programmer, Computer Engineer, Web Designer, Video Game Design, IT Specialist, Network Technician

Membership fee for TSA is required (\$17.00).



Coding II

9th, 10th, 11th grade

.5 Credit

Prerequisite: Coding I or Instructor Approval

Ever wonder how computers work? How to manipulate and program them to work the way you wish them to? Ever wanted to learn more about how to build and/or utilize computer apps (including drones, robotics, 3D printing, and a variety of software) to serve your purpose, whether in business, art, gaming, or any other personal or professional aspect of life? Well, look no further. Mountain Range has a computer science and technology course for you! Coding II challenges students to develop advanced skills in problem analysis, construction of algorithms, and computer implementation of algorithms as they work on programming projects of increased complexity. In so doing, they develop key skills of discernment and judgment as they must choose from among many languages, development environments, and strategies for the program life cycle. Course content is reinforced through numerous short- and long-term programming projects, accomplished both individually and in small groups. These projects are meant to hone the discipline and logical thinking skills necessary to craft error-free syntax for the writing and testing of programs. Upon completion of this course, proficient students will demonstrate an understanding of object-oriented programming language using high-level languages such as Processing (Java version), FOCUS, Python, or SAS.

Counseling Notes:

This course is a recommended prerequisite to AP Computer Science A.

MRHS students are encouraged to take this course at MRHS even though it is available at Bollman.

Possible career opportunities: Computer Programmer, Computer Engineer, Web Designer, Video Game Design, IT Specialist, Network Technician

Membership fee for TSA is required (\$17.00).



AP Computer Science Principles

9th, 10th, 11th and 12th grade

1.0 Credit

Prerequisite: Enrolled or completed Integrated Math II

Ever wonder how computers work? How to manipulate and program them to work the way you wish them to? Ever wanted to learn more about how to build and/or utilize computer apps (including drones, robotics, 3D printing, and a variety of software) to serve your purpose, whether in business, art, gaming, or any other personal or professional aspect of life? Well, look no further. Mountain Range has a computer science and technology course for you! AP Computer Science Principles introduces students to the breadth of the field of computer science. In this course, students will learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They will incorporate abstraction into programs and use data to discover new knowledge. Students will also explain how computing innovations and computing systems, including the Internet, work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

(<https://apcentral.collegeboard.org/pdf/ap-computer-science-principles-course-and-exam-description.pdf>)

Counseling Notes:

An AP open house night will be hosted in the spring for all students who are registering for AP courses. Teachers will cover class expectations for parents/guardians and students during this time. The parent/guardian and student are required to sign a digital AP contract to enroll in this course. This course requires a teacher recommendation from the current teacher of the same content (if applicable). The teacher's name who is recommending you for the course is required on the AP contract.

All students taking A.P. English Language and Composition will be required to take the Advanced Placement Examination in order to receive the weighted credit for this course.

MRHS students are encouraged to take this course at MRHS even though it is available at Bollman.

Membership fee for TSA is required (\$17.00). Course fee of \$96.00 for the A.P. Examination.



AP COMPUTER SCIENCE A - (STEM, & Information Technology Pathway)

10th, 11th, 12th grade

1.0 Credit

Prerequisite: Coding I and Coding II, or AP Computer Science Principles, or instructor approval.

Ever wonder how computers work? How to manipulate and program them to work the way you wish them to? Ever wanted to learn more about how to build and/or utilize computer apps (including drones, robotics, 3D printing, and a variety of software) to serve your purpose, whether in business, art, gaming, or any other personal or professional aspect of life? Well, look no further. Mountain Range has a computer science and technology course for you! AP Computer Science A is an introductory college-level computer science

course. Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures. The course emphasizes object-oriented programming and design using the Java programming language. Prerequisites: Students must have successfully completed one of the following Computer Science options: Coding I and Coding II; or AP CS Principles; or teacher approval. Students must also be enrolled in or completed Integrated Math II.

Counseling Notes:

An AP open house night will be hosted in the spring for all students who are registering for AP courses. Teachers will cover class expectations for parents/guardians and students during this time. The parent/guardian and student are required to sign a digital AP contract to enroll in this course. This course requires a teacher recommendation from the current teacher of the same content (if applicable). The teacher's name who is recommending you for the course is required on the AP contract.

MRHS students are encouraged to take this course at MRHS even though it is available at Bollman. Membership fee for TSA is required (\$17.00). Course fee of \$96.00 for the A.P. Examination.



Multimedia Technology Courses



Web Design

9th, 10th, 11th and 12th Grade

0.5 Credit

Students will learn to create, design and publish information on the World Wide Web. Students will become proficient in web page design on web-authoring software as well as by using hand coding. Using HTML, CSS, and some JS students will transform ideas into publications ready for launching on the Web. Students will design detailed and in-depth, interactive websites using cutting edge technology and learn the dynamic possibilities of industry standard web-authoring tools.



Front Range Concurrent Course

This is a Front Range Community College concurrent enrollment course. Please talk to your instructor for information on receiving college credit for this course.

Counseling Notes:

Membership fee for TSA is required (\$17.00).



Introduction to Multimedia & Digital Media

9th, 10th, 11th, and 12th Grade

1.0 Credit (Two semester long courses)

Want to learn how to use motion graphics and visual effects? Multimedia is significant in our lives today because if we connect and communicate with more than just one medium, we can use more than one of our senses. Using a variety of artistic or communicative media like this helps to make an idea or presentation fresh and interesting, and also allows for greater insight. This course consists of a one semester survey course introducing students to 21st century workplace multimedia tools and the second semester explores the world of Motion Graphics and Visual Effects. In Intro to Multimedia, this computerized course is designed to help students develop skills using basic graphics, video, and sound within multimedia production softwares. This class will focus on: creating multimedia projects utilizing prosumer video production software; learn to effectively use audio and video recording equipment; learn to capture, edit and create audio and video files; learn to effectively utilize a mix of production software; experiment with a variety of computer applications. Students in Media Production will produce video announcements and other projects

incorporating a variety of technologies. Students should be interested in learning to use video and editing equipment along with other multimedia tools. Class activities will include gathering information; planning broadcasts; interviewing guests; writing scripts; planning layouts; videotaping; editing tapes and meeting deadlines. Digital Media will then move to a more indepth use and understanding of post-production skills in typography graphics, special effects and depth of sound to take student media projects to a more professional standard.

Counseling Notes:

Membership fee for TSA is required (\$17.00).



Audio and Video Production I A / Audio and Video Production I B
10th, 11th, and 12th Grade

1.0 Credit

Prerequisite: Introduction to Multimedia & Digital Media

Multimedia is significant in our lives today because if we connect and communicate with more than just one medium, we can use more than one of our senses. Using a variety of artistic or communicative media like this helps to make an idea or presentation fresh and interesting, and also allows for greater insight. Students in this course focus on expanding their learning of the ADOBE Creative Cloud Suite and focus on executing broadcast level products in a variety of areas from interviewing, live events, narrative films to documentaries. Students are encouraged to create products to be entered in local and regional film festivals as well as considering taking the Adobe Premiere Certification Test. Students will learn the process to produce school broadcast video announcements and other projects incorporating a variety of technologies. Students will go into greater depth on learning how to maximize video and editing equipment along with other multi\media tools. Class activities will include gathering information; planning broadcasts; interviewing guests; writing scripts; planning layouts; video recording; non-linear editing and meeting deadlines.

Counseling Notes:

Audio and Video Production students are responsible for maintaining the School's student-generated media publication - The Range, which can be accessed at www.mtnrangestudentmedia.com.

Membership fee for TSA is required (\$17.00).



Broadcast Production A (Semester 1) & Broadcast Production B (Semester 2)
10th, 11th and 12th Grade

1.0 Credit

Prerequisite: Audio and Visual Production I A and Audio and Visual Production I B

Multimedia is significant in our lives today because if we connect and communicate with more than just one medium, we can use more than one of our senses. Using a variety of artistic or communicative media like this helps to make an idea or presentation fresh and interesting, and also allows for greater insight. This course continues to build upon the skills developed in Media Productions and is a career readiness pathway for students interested in pursuing a career in multimedia. This two semester, year-long course, will focus on the workplace expectations for pre-production, production and post-production skills that are expected of students heading directly into the industry or are interested in a multimedia career field. Experiences will include developing creative, informative productions for in-school broadcasts, productions submitted to film festivals and creation of a student demo reel to market their skills.

Broadcast Production students are responsible for maintaining the School's student-generated media publication - The Range, which can be accessed at www.mtnrangestudentmedia.com.

Membership fee for TSA is required (\$17.00).

