



Course Catalog

2023-2024

Montoursville Area High School
700 Mulberry Street
Montoursville, PA 17754
Phone – 570.368.2611
Fax – 570.368.2768

COMPLIANCE STATEMENT

It is the policy of the Montoursville Area School District not to discriminate on the basis of race, sex, religion, color, national origin, age, handicap or limited English proficiency in its educational programs, services, facilities, activities or employment policies as required by Title IX of the 1972 Educational Amendments, Title VI and VII of the Civil Rights Act of 1964, as amended, Section 504 Regulations of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, Section 204 Regulations of the 1984 Carl D. Perkins Act or any applicable federal statute.

For information regarding programs, services, activities, and facilities that are accessible to and usable by handicapped persons or for inquiries regarding civil rights compliance, contact: Montoursville Area School District, 50 North Arch Street, Montoursville, PA 17754, 570-368-2491; or the Director of the Office of Civil Rights, Department of Health, Education and Welfare, Washington, D.C.

Montoursville Area High School

The mission of Montoursville Area School District is to provide comprehensive programs that emphasize the Pennsylvania and National Academic Standards. This will empower all students to use their individual abilities and capabilities to be life-long learners and successful contributors to a global society.

Dear Students:

The Montoursville Area High School faculty, staff, and administration have prepared the Course Catalog to assist you and your parents in the process of course selection. You will find a wide array of required and elective courses as well as many Advanced Placement options. Your teachers, guidance counselors, and principals are available to assist you with goal setting and appropriate course selection as you move toward graduation. You are strongly encouraged to discuss your goals and course options with these individuals and your parents prior to scheduling. And with our 9-period day, it is even more important to have these discussions as study halls will be limited.

High school is what you make of it. Careful consideration and selection of advanced courses will allow you to take full advantage of the many academic opportunities at Montoursville Area High School. I encourage you to challenge yourself and make the most of these opportunities. If you are considering college, these choices should include our most advanced level of courses, Advanced Placement. These courses will truly prepare you for the next level of education.

On behalf of the faculty and staff of Montoursville Area High School, we wish you the very best success as you plan your future. We look forward to working with you throughout your high school career.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matthew S. Johnson', with a stylized flourish at the end.

Mr. Matthew S. Johnson
Principal

Montoursville Area School District

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Assistant Superintendent of Schools

Mr. Timothy Hanner
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Mr. Chris King
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Guidance Counselor 9-10

Mission of Montoursville Area High School

The mission of Montoursville Area School District is to provide comprehensive programs that emphasize the Pennsylvania and National Academic Standards. This will empower all students to use their individual abilities and capabilities to be life-long learners and successful contributors to a global society.

Philosophy of Education

Our service of providing educational growth with all of its ramifications takes into consideration the socio-economic nature of the community we are serving now and the future needs of this citizenry as they remain in this locale or migrate to other areas of the world. Our goals based on the premise that we are serving the community, about 60 percent are rural and 40 percent suburban, with a diversity of occupations and industry with a curve distribution slightly above normal in regard to wealth, intelligence, social habits, and aspirations.

It is our desire to provide the necessary vehicle so that our pupils will react now and in the future as rational, sensible, and humane citizens destined to live a purposeful life with a profound respect for the dignity of mankind.

We recognize the right of all students to a type of education that will permit them to perform in and contribute to our changing democratic society and that will allow them to respect the personal and property rights of its citizens.

The formal curriculum, as well as the activities and other facets of the school program, is important and is designed to accommodate a wide range of differences and the many ramifications with regard to the pupil's present needs as well as his/her future potential.

We recognize and must prepare the student with a background in fundamental skills that will serve as foundations for future and specialized learning. In addition to these fundamentals, certain immediate post high school employment-oriented needs should also be accommodated.

We feel that a wholesome, day-to-day, present state of mental outlook, attitudes, and physical well-being are important to the pupils now and will affect their future. We shall, through our resources, try to maintain and cultivate this wholesomeness.

The student-teacher-parent relationship is to be viewed as one of mutual respect, trust, and consideration for the efforts, rights, and positions of each.

It is our intent to have the educational process occur in an orderly but friendly and unrepressed atmosphere. Paramount is each student's right to an education without interference from others.

The final decisions, although made by the administration and/or the school board, shall take into serious consideration opinions, ideas, and facts presented by the faculty, students, or the general public. It is important that avenues of communication be kept open and uninhibited so that free exchange among these parties may occur.

It is our primary commission to teach, to foster learning, and to encourage each pupil to achieve his/her potential.

Introduction

Graduation Requirements *(Board Policy #217)*

Graduation requirements of the Montoursville Area High School, which is accredited by the Pennsylvania Department of Education, must meet the graduation requirements of the Pennsylvania Department of Education and the Montoursville Area School District graduation standards. Courses for credit may be taken at institutions of higher education or area summer schools. **All such courses must have prior approval of the principal.**

The graduation requirements of the Montoursville Area High School require each student to complete at least 26 units of credit in certain specified areas in grades 9 through 12 in order to be awarded a high school diploma. In addition to completing the 26 credits, students shall meet all requirements of the Pennsylvania Department of Education for high school graduation.

| <i>Units of Credit</i> | <i>Course/Subject</i> |
|-------------------------------|---|
| 4 | English: Must satisfactorily complete four (4) English credits. |
| 3 | Math: Must satisfactorily complete three (3) math credits taken while the student is in grades 9-12. All students must take and pass Algebra I or Algebra IA and IB. |
| 3 | Science: Must satisfactorily complete three (3) science credits. All students must take and pass a Biology course and a Chemistry or STEM or Agriculture Science course to graduate. |
| 4 | Social Studies: Must satisfactorily complete four (4) Social Studies credits. All students must take and pass Civics & Government, US History, World History, and CSS. One (1) credit in Social Studies may be waived for LycoCTC students. |
| 2 | Health and Physical Education: Must satisfactorily complete 2.0 credits Physical Education. Freshmen will have Intro to Physical Education/Health to fulfill 0.5 credits of this requirement. |
| 2 | Arts* or Humanities**: Must satisfactorily complete two (2) credits in any of the options below: <ul style="list-style-type: none"> a. 2 credits in Art b. 2 credits in Humanities c. 2 credits total in Arts & Humanities with part in Arts and part in Humanities |
| 8.0 | Additional Credits: The student elects enough other credits such that at least the eight (8) credits are accumulated to total the 26.0 required by the Montoursville Area School District. Financial Literacy must be 0.5 credits of the 8.0. |
| 26.0 | Total credits required for graduation. |

* **Arts:** Visual Arts, Music, Film Studies, Technology Education

** **Humanities:** Literature, Foreign Languages, History, or additional courses in English and Social Studies

ACT 158 State Graduation Requirements

Act 158 of 2018 (Act 158) provides alternatives to Pennsylvania's statewide requirement of attaining proficiency on the three end-of-course Keystone Exams (Algebra I, Literature, and Biology) for a student to achieve statewide graduation requirements.

Effective with the graduating class of 2023, students have the option to demonstrate postsecondary preparedness through one of four additional pathways that more fully illustrate college, career, and community readiness. Keystone Exams will continue as the statewide assessment Pennsylvania uses to comply with accountability requirements set forth in the federal Every Student Succeeds Act (ESSA). Although students will no longer be required to achieve proficiency on the Keystone Exams to meet the statewide graduation requirement, **students must take the Keystone Exams for purposes of federal accountability**. Failure to do so will affect a Local Education Agency (LEA) and school's participation rate.

For students graduating in 2023 and beyond, five pathways exist for meeting state high school graduation requirements:

- Keystone Proficiency
- Keystone Composite
- Career and Technical Education (CTE) Concentrator
- Alternative Assessment
- Evidence-Based

Course/Subject Requirements

LycOCTC Credits: Each year 36 weeks of LycOCTC work shall be equated to four (4) credits as part of the seven and a half (7.5) additional credits requirement.

Awarding of Credit: Course credits may not be used to meet more than one (1) graduation requirement. A grade of 70% or higher or P (Pass) must be attained in order to pass the course and receive credit.

Unit of credit: For graduation purposes, a unit of credit shall represent satisfactory completion of a planned course of 120 hours of instruction in grades 9-12. A school district may offer a planned course of less than 120 hours and course credit shall be awarded based on a fraction thereof.

Courses approved for graduation credit: All courses offered and taken in grades 9-12 are approved for graduation credit. The courses which fulfill required areas, shall be interpreted using information stated in the Montoursville Area District Graduation Requirements.

Student Transfer: In cases of pupils transferring to the Montoursville Area High School, the administration may make certain exceptions to the previous requirements if they feel in essence the pupil has met the requirements or transferring presents a very impractical situation. The intent of this is to prevent a hardship on a student as a result of technicalities.

Keystone Exams



By this point, we are all familiar with the PSSA Exams and their meaning for schools and students. You will find a link on our website that gives some detailed information on the Keystone Exams and how they impact our school community. Any course that requires a Keystone exam will be marked in our Course Catalog as such.

- ❖ Students take Keystone Exams at the end of the following courses:
 - Algebra I (Algebra I or Algebra IB)
 - Biology (Biology or Honors Biology or Technical Biology)
 - Literature (English 10 and Honors English 10)

Promotion and Retention (Board Policy #215)

High School(Grades 9-12) students are classified and assigned to grade levels according to the minimum standards listed below:

Grade 9 – Satisfactory completion of the program of study in Grade 8

Grade 10 – Satisfactory completion of 6 credits by the end of 9th grade

Grade 11 – Satisfactory completion of 12 credits by the end of 10th grade

Grade 12 – Satisfactory completion of 18 credits by the end of grade 11 and the ability to plan a schedule that will meet requirements for graduation, which includes an additional 8 credits for a cumulative total of 26 credits for graduation.

Advanced Placement (AP)

AP can change your life. Through college-level AP courses, you enter a universe of knowledge that might otherwise remain unexplored in high school; through AP Exams, you have the opportunity to earn credit or advanced standing at most of the nation's colleges and universities. These college level courses require students to meet high standards for success. They require reading and writing skills at a superior level as well as abilities to analyze, synthesize, evaluate, and create. Students selecting these courses must be highly motivated, self-directed learners. All students enrolling in AP courses **are highly encouraged** to take the Advanced Placement exam for that course. Students considering college in their plans should enroll and successfully complete a number AP classes before graduation. The experience and preparation required gives you a good idea of what a college class will be like. Check the CollegeBoard® website for AP Credit Policy at <https://apstudent.collegeboard.org/creditandplacement/search-credit-policies>.

Penn College NOW

Penn College NOW is a program that allows high school students to earn Penn College credits through dual enrollment. Penn College NOW classes are taught by approved high school teachers at the student's home high school or career and technology center. These courses are tuition free for our students. These credits do transfer to most colleges and universities. Check with the school you will be attending to see if the credits transfer.

Special Education

Parents of students who suspect that their child has a disability and is in need of special education may request a multidisciplinary team evaluation of their child through a written request to the building principal or the Supervisor of Special Education. For additional information pertaining to special education services, please refer to the Montoursville Area School District website at www.montoursville.k12.pa or contact the office of Special Education at 570-368-3502.

Agriculture

Agriculture education is a course encompassing Agriscience, general Ag practices, Agribusiness options, and Agriculture careers. It is designed to give a general overall view and practices for modern day Agriculture.

6800 AGRICULTURE I

Grade(s): 9 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: The purpose of this course is to: (1) have a basic understanding of many occupational opportunities in agriculture; (2) have an understanding of Future Farmers of America organizations; (3) have an understanding of planning and developing a home project, soil science, plant science, and forestry science and management; (4) have an understanding of the recreation of wildlife history and future responsibilities; (5) develop basic leadership abilities; (6) develop farm and shop safety practices and using shop power tools (7) develop a basic understanding of small animal care (poultry, rabbits, honey bee) and management practices of each; (8) have an understanding relationships between wildlife and humans and identifying approved practices in wildlife management.

Description: The Agriculture I is designed as a fundamental and basic pre-requisite course to precede future Agriculture Courses thus, if a student can or only chooses one Agriculture Course, then that course must be Agriculture I (theory and shop)

Expectations: (1) Plan and complete records on a home projects; (2) obtain and test at least two soil samples; (3) acquire basic knowledge in poultry, rabbit, and honey bee sciences; (4) obtain 20 leaf specimens and identify them; (5) demonstrate leadership ability by participating in FFA activities and presenting four oral three minute news or research reports; (6) plan and complete at least 4 shop assignments; (7) complete farm safety course; (8) acquire basic knowledge in wildlife management.

6820 AGRICULTURE II – ANIMAL AND PLANT SCIENCE

Grade(s): 10 - 12

Credit(s): 1.5

Weight: 1.0

Day(s): 9

Prerequisite: Agriculture I and then followed in sequence.

Objectives: (1) Develop a basic understanding of plant science; (2) complete an enterprise record book on a home project; (3) pupils will develop skills in the following areas: greenhouse and nursery operations; (4) acquire the basic knowledge of vegetable production; (5) develop an understanding of the proper procedures and handling of pesticide chemicals in a safe manor according to state and federal regulations; (6) acquire the basic knowledge of horsemanship; (7) acquire the basic knowledge of Aquaculture and its importance; (8) understand basic approved practices in the care and management of dairy and livestock; (9) understand basic approved practices in the humane slaughtering of livestock; (10) acquire the basic knowledge of meat cutting and processing.

Description: Acquire basic knowledge in Agriculture, and obtain basic skill and knowledge in dairy and livestock.
This course can be counted as a science credit towards graduation.

Expectations: (1) Collect and identify 20 weed specimens; (2) acquire basic knowledge in plant science; (3) complete PA State Pesticide Courses; (4) demonstrate leadership abilities by serving as a committee chairmen on at least one FFA committee; (5) demonstrate public speaking in a speech at least 5 minutes in length; (6) demonstrate meat cutting skills.

6830 AGRICULTURE III/IV – MECHANICS AND LEADERSHIP

Grade(s): 10 - 12

Credit(s): 1.5

Weight: 1.0

Day(s): 9

Prerequisite: Agriculture I and then followed in sequence.

Objectives: (1) Complete an enterprise record book on a home project; (2) pupils will develop skills in the following areas: greenhouse and nursery operations; (3) develop an understanding of the proper procedures and handling of pesticide chemicals in a safe manner according to state and federal regulations; (4) learn basic skill in deer processing; (5) continue to develop the skills and importance of planning, conducting, and maintaining records on a home project or supervised occupational experience project; (6) pupils will develop skills as outlined in the Ag shop planned course; (7) learn skills in sloughing livestock and meat cutting.

Description: Acquire basic knowledge in Agriculture in the shop, and obtain basic skill and knowledge in machinery and construction.

Expectations: (1) Collect and identify 20 weed specimens; (2) demonstrate public speaking in a speech at least 5 minutes in length; (3) maintain complete record of home projects; (4) plan and compete at least 8 shop projects; (5) acquire skills to become efficient in performing shop operations in building construction, electrical wiring, masonry, gas and electrical welding, tractor & machinery overhaul and repairs.

Art

The art department offers a wide range of courses. The art facility is comprised of two modern art rooms. The 2D Art classroom is used for drawing and painting classes. This room features drawing tables and individual bins for safe storage of student artwork. The Ceramics room has a kiln and storage for ceramics projects. Highlights of the art program are: a wide variety of media to work with and an annual art show. Students will create more involved and advanced artwork with each year they take an art course. They will build upon skills learned in previous courses with each subsequent year. Students are encouraged to maintain a high level of craftsmanship, originality, and creativity with each lesson.

6370 DRAWING I

Grade(s): 9 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: Students will learn: the skills needed for creating art in a variety of media, the elements and principles of design, unique ways of seeing and recording everyday life, methods of creating art by examining the works of master artists, about color and various techniques of how they can be used.

Description: Students will be exposed to a wide variety of drawing projects consisting of, but not limited to: pencil, charcoal, colored pencil, watercolor pencil, marker, and pastels. Students will also learn about how to use patterns and texture in art, how to properly draw human proportions, visual literacy, along with abstract and non-objective art.

Expectations: Students will be expected to complete projects to the best of their ability and to complete a graded check-in every three weeks. Students are expected to have an interest in art. Talent is not as important as a willingness to learn and create.

Textbook: This is a project-based course with no assigned textbook.

6371 ADVANCED DRAWING

Grade(s): 10 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: A grade of 80 or higher in previous level of the course is recommended.

Objectives: Students will learn: the skills needed for creating art in a variety of media, the elements and principles of design, unique ways of seeing and recording everyday life, methods of creating art by examining the works of master artists, about color and various techniques of how they can be used.

Description: Students will build on their knowledge of drawing while being exposed to a wide variety of drawing projects consisting of, but not limited to: pencil, charcoal, colored pencil, watercolor pencils, markers, and pastels.

Expectations: Students will be expected to complete projects to the best of their ability and to complete a graded check-in every three weeks. Students are expected to have an interest in art. Talent is not as important as a willingness to learn and create.

Textbook: This is a project-based course with no assigned textbook.

6390 PAINTING I**Grade(s): 9-12****Credit(s): 1.0****Weight: 1.0****Day(s): 6****Prerequisite:** None

Objectives: Students will learn: the skills needed for creating art in a variety of media, the elements and principles of design, unique ways of seeing and recording everyday life, methods of creating art by examining the works of master artists, about color and various techniques of how they can be used.

Description: Students will be exposed to a wide variety of painting projects consisting of, but not limited to: watercolor and acrylics paints. Students will learn various watercolor and acrylic painting techniques in addition to color matching, blending, and portraiture.

Expectations: Students will be expected to complete all projects to the best of their ability and to complete a graded check-in every three weeks. Students are expected to have an interest in art. Talent is not as important as a willingness to learn and create.

Textbook: This is a project-based course with no assigned textbook.

6391 ADVANCED PAINTING**Grade(s): 10-12****Credit(s): 1.0****Weight: 1.0****Day(s): 6****Prerequisite:** A grade of 80 or higher in previous level of the course is recommended.

Objectives: Students will learn: the skills needed for creating art in a variety of media, the elements and principles of design, unique ways of seeing and recording everyday life, methods of creating art by examining the works of master artists, about color and various techniques of how they can be used.

Description: Students will build on their knowledge of painting while being exposed to a wide variety of painting projects consisting of, but not limited to: watercolor and acrylics paints as well as various techniques of how these can be used on a variety of surfaces.

Expectations: Students will be expected to complete all projects to the best of their ability and to complete a graded check-in every three weeks. Students are expected to have an interest in art. Talent is not as important as a willingness to learn and create.

Textbook: This is a project-based course with no assigned textbook.

6410 CERAMICS I**Grade(s): 9 - 12****Credit(s): 1.0****Weight: 1.0****Day(s): 6****Prerequisite:** None

Objectives: Students will: (1) gain an understanding of various media and terminology and learn to use them; (2) be encouraged to be self-reliant and self-thinking; (3) develop a basic art background in preparation for artistic leisure time activities or career possibilities; (4) learn to use the principals of design in their artwork; (5) create original and creative works of art.

Description: Students will be exposed to a wide variety of ceramic projects consisting of, but not limited to: hand building (pinch, slab and coil construction) and mosaics. Both sculptural and utilitarian items will be created.

Expectations: Students will be expected to complete all projects to the best of their ability and to complete an artist statement for each project. Students are expected to have an interest in art. Talent is not as important as a willingness to learn and create.

Textbook: This is a project-based course with no assigned textbook.

6411 ADVANCED CERAMICS

Grade(s): 10 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: A grade of 80 or higher in previous level of the course is recommended.

Objectives: Students will: (1) gain an understanding of various media and terminology and learn to use them; (2) be encouraged to be self-reliant and self-thinking; (3) develop a basic art background in preparation for artistic leisure time activities or career possibilities; (4) learn to use the principals of design in their artwork; (5) create original and creative works of art.

Description: Students will be exposed to a wide variety of ceramic projects consisting of, but not limited to: hand building (pinch, slab and coil construction) and mosaics. Both sculptural and utilitarian items will be created.

Expectations: Students will be expected to complete all projects to the best of their ability and to complete an artist statement for each project. Students are expected to have an interest in art. Talent is not as important as a willingness to learn and create.

Textbook: This is a project-based course with no assigned textbook.

Business

The Business curriculum is designed to prepare students to become knowledgeable and ethical decision makers as consumers, workers, and citizens. Business Education introduces students to the basics of personal finance, the economic principles of an increasingly global marketplace, the decision-making techniques needed to be wise consumers, and the processes by which businesses operate. In addition, Business Education provides a concrete educational foundation for students who want to successfully continue their education in the area of business. Furthermore, the Business curriculum offers students opportunities to earn college credits in the area of business while still in high school through PC NOW courses.

670 FINANCIAL LITERACY

Grade(s): 11 *REQUIRED*

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Objectives: The goal of the Financial Literacy course is to provide with the information and tools to be financially literate and successful for personal finances.

Description: Students will learn personal financial planning, money management, credit, banking, and consumer protection. The financial planning unit includes financial decisions and goals, opportunity costs and strategies, and a financial portfolio. The unit on money management strategies includes organizing financial records, personal financial statements, and budgeting for financial goals. There is also an extensive unit on Banking and credit that covers savings plans, payment methods, consumer credit, managing debt, types of credit, and how to protect your credit.

Expectations: Students are expected to complete all assignments and to contribute to class discussions. Assignments are listed on the course web page. Assessment is based on class assignments, projects, and class participation. Being on time to class and being prepared is also part of the class participation grade.

5000 PRINCIPLES OF BUSINESS

Grade(s): 9 - 12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: None

Objectives: This course is designed as an introduction to the business courses offered in high school and in college. After taking this course, students will have a basic understanding of our economy, of business principles, and of personal finance. They will be able to write a business plan and will understand what is involved in running a small business.

Description: This course is designed to introduce students to events in today's business world, how to understand them, and how to deal with them on a personal level. The information that will be covered will focus on both a macro and micro level with more emphasis spent on you and how you fit into today's changing business world.

Some of the topics which will be covered include: (1) Satisfying Needs and Wants; (2) Our Economic System; (3) Measuring Economic Progress; (4) Developing a Business Plan; (5) Types of Businesses; (6) Entering the World of Work (Resumes, Cover Letters, Interviewing); (7) Banking, Saving, and Investing; (8) Being an Informed Consumer; (9) Managing Money; (10) Using Credit; (11) The Stock Market; (12) Managing a Business

Expectations: Students are expected to complete class work assignments, homework assignments, projects, quizzes, and tests. Students are expected to work in groups cooperatively and collaboratively. They will be expected to contribute to class discussions and to give class presentations.

5010 INTRODUCTION TO BUSINESS – MGT105 – Penn College NOW Course(3 Credits)**Grade(s): 10 - 12****Credit(s): 1.0****Weight: 1.10****Day(s): 6****Prerequisite:** Placement by Examination. 10th Grade by Principal and Teacher Recommendation ONLY.

Objectives: This course is designed as an introduction to the business courses offered in high school and in college. After taking this course, students will have a basic understanding of our economy, of business principles, and of personal finance. They will be able to write a business plan and will understand what is involved in running a small business.

Description: Introduction to the basic concepts and applications of computer and Internet-related information technology and its impacts on individual users, businesses, groups, organizations, and society. Topics include access, evaluation, and use of digital information; ethical and security implications of information use and storage; human-computer interactions; social aspects of information systems; economic and legal issues; and professional presentation and communication of information. Information literacy skills that promote lifelong learning are developed through exposure to various existing and emerging technologies, including information resources, communication methods, and technology.

Expectations: This is a college level course and therefore college-level work is expected from the students enrolled in this class.

5100 HONORS ACCOUNTING**Grade(s): 10 - 12****Credit(s): 1.0****Weight: 1.05****Day(s): 6****Prerequisite:** None

Objectives: Students will be able to:

- Define accounting and explain the effects on the business world.
- Identify the basic financial statements used in a business, explain how the statements interrelate, and interpret the statements using basic profitability, liquidity, and solvency analysis.
- Explain the accounting cycle including how information flows, the accounting equation, usage of debits and credits, and adjusting and closing requirements.
- Understand the nature and differences of service and merchandising businesses.
- Describe the objectives of internal control and define the elements of an internal control system especially as it relates to cash.
- Describe inventory methods and explain the effects of the choice of inventory methods on the financial statements.
- Describe the classifications of receivables and the nature of and the accounting for the uncollectible accounts receivables.
- Identify plant assets, understand the nature and methods of depreciation and show how depreciation affects financial statements.
- Identify current liabilities including payroll liabilities for employees and employers.
- Describe long-term liabilities and stockholders' equity and understand the effects on financial decisions.
- Apply technology including the use of integrated accounting software to the accounting processes.

Description: This is the high school level of accounting. The course is designed to enable students to work independently through an accounting cycle, from analyzing transactions to preparing a post-closing trial balance. This course focuses on sole proprietorships and partnerships and concentrate on the following areas: journalizing, posting, adjusting and closing entries, worksheets, financial statements, depreciation, payroll, and taxes.

Expectations: Students are expected to complete class work assignments, homework assignments, quizzes, and tests.

English Department

| Sequence | Grade 9 Course | Grade 10 Course | Grade 11 Course | Grade 12 Course |
|---------------------|---|--|---|---|
| Honors/AP | Honors English 9 | Honors English 10 | AP English Language and Composition | AP English Literature and Composition |
| College Prep | Honors English 9 | Honors English 10 | Honors English 11 | Honors Communications |
| Academic | English 9 | English 10 | English 11 <i>or</i> Keystone English 11 | Technical Communications |
| Elective | Journalism I <i>or</i> Intro to Drama <i>or</i> Film & Literature (even years) <i>or</i> Creative Writing (odd years) | Journalism I <i>or</i> Advanced Journalism <i>or</i> Drama <i>or</i> Film & Literature (even years) <i>or</i> Creative Writing (odd years) | Journalism I <i>or</i> Advanced Journalism <i>or</i> Drama <i>or</i> Yearbook <i>or</i> Film & Literature (even years) <i>or</i> Creative Writing (odd years) | Journalism I <i>or</i> Advanced Journalism <i>or</i> Drama <i>or</i> Yearbook <i>or</i> Film & Literature (even years) <i>or</i> Creative Writing (odd years) |

1000 HONORS ENGLISH 9



Grade(s): 9

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: Must have 88% or above in 8th grade Advanced Language Arts; or 92%; above in 8th grade Language Arts; or with teacher recommendation

Objectives: To refine students' basic skills in reading comprehension and writing; to develop students' critical thinking skills; to expand students' appreciation of literature and its relevance to history and students' lives.

Description: This course focuses on reinforcing and further developing competency in writing, reading, literary analysis, speaking and listening, vocabulary, and grammar. A variety of literature will be chosen to develop higher order critical reading skills and knowledge of literary concepts, such as plot, conflict, setting, characterization, theme, irony, and figurative language. Students will summarize, make assertions and inferences, and support claims about the literature. Students will be assessed through a variety of methods, such as objective tests, writing assignments, and projects requiring critical thinking.

Expectations: Students will be responsible for completion of all assigned readings. Students will produce satisfactory writing assignments from one-paragraph responses to a properly cited research paper.

1010 ENGLISH 9



Grade(s): 9

Credit(s): 1.0 Weight: 1.0 Day(s): 6

Prerequisite: Successful completion of middle school language arts and reading curriculum.

Objectives: This course will refine students' basic skills in reading comprehension and writing, develop students' critical thinking skills, and expand students' appreciation of literature and its relevance to history and students' lives.

Description: Students in English 9 will work to improve reading and writing skills through the study of grammar, vocabulary, literary devices, nonfiction and fiction reading, research inquiry and writing. Students will develop their thinking, listening and speaking skills through exercises and activities related to a selection of texts.

Expectations:

- Students are expected to maintain a general preparedness for class which includes completion of in-class assignments, homework, and participation in small writing responses through the Google Classroom.
- Students are expected to read (and study) texts provided which range between short stories, novels, plays, and nonfiction articles.

- Students are expected to write essays and response/analysis papers in regard to concepts studied in class along with researching and writing a formal research paper.
- Students are expected to practice grammar, vocabulary, and other highlighted literary terms through different activities and assignments throughout the year.
- Students are expected to participate in group discussions and may be expected to deliver individual or group presentations.
- Students must complete a midterm and final examination.

1020 HONORS ENGLISH 10



Grade(s): 10

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: Must have 88% or above from Honors English 9; or 92% or above for English 9, or with teacher recommendation

Objectives: Honors English 10 aims to prepare the high school student for upper level Honors English and/or AP classes and ultimately, entry into a college or university.

Description: Honors English 10 is a rigorous college preparatory class that offers a survey of various fiction and non-fiction selections, vocabulary development, exploration of literary devices in addition to opportunities to express oneself through writing and speaking.

Expectations:

- Students will be responsible for the completion of all reading, writing, and homework assignments, which includes a summer assignment.
- All of the literature, including novels will be read outside of class.
- Class participation in class discussion, note-taking and general preparedness is required.
- Students are expected to develop reading, writing, speaking, and listening skills according to Pennsylvania State Standards.
- Students must complete a final examination.

1030 ENGLISH 10



Grade(s): 10

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: English 9

Objectives: English 10 aims to meet the needs of the non-college bound student. Students will continue to develop critical reading and thinking skills as well as effective compositional techniques.

Description: English 10 is a language arts course that offers a survey of various American, British, and World literature, vocabulary from various reading selections, and opportunities to express oneself verbally through writing and speaking. In addition, this course will prepare and focus students for the Keystone Literature Exam.

Expectations: Students will be responsible for the completion of all reading, writing, and homework assignments. Class participation in class discussion, note-taking and general preparedness is required. Students are expected to develop reading, writing, speaking, and listening skills according to Pennsylvania State Standards.

1040 HONORS ENGLISH 11



Grade(s): 11

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: Must have 88% or above from Honors English 10; or 92% or above for English 10, or with teacher recommendation

Objectives: The purpose of Honors English 11 is to enable potentially college-bound students to actively and critically read challenging nonfiction texts and to create effective compositions as will be expected in collegiate study. Students will further develop career/college readiness.

Description: Honors English 11 focuses primarily on nonfiction reading. Students will learn rhetorical (argument) skills throughout the year. Students will analyze essays and longer nonfiction works, in addition to visual texts. Students will also complete independent reading projects throughout the year and will occasionally read works of fiction. Students will complete a series of college/career explorations assignments.

Expectations: Upon completion of the Honors English 11 course, students should be able to:

- Analyze and interpret samples of good writing, identifying and explaining an author's use of rhetorical strategies and techniques
- Apply effective strategies and techniques in their own writing
- Create and sustain arguments based on readings, research, and/or personal experience
- Write effectively for a variety of purposes and in a variety of ways
- Write thoughtfully about their own process of composition
- Evaluate, incorporate, and cite primary and secondary source documents in researched papers

In addition, Honors English 11 students should be college-bound students who are committed to academic excellence.

1050 ENGLISH 11



Grade(s): 11

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: English 10

Objectives: To refine students' skills in reading comprehension and writing, to refine students' critical thinking skills and approaches to learning life-long skills, to refine students' appreciation of literature/reading and the relevance to their lives. Students will complete a series of career/college explorations assignments.

Description: This course examines a survey of both fiction and non-fiction while developing vocabulary and exploring literary devices. Students will continue to develop their written and oral expression as they read, analyze, and interpret reading selections, as well as further students' career readiness.

Expectations:

- All students will work consistently at their highest level of achievement, achieving credit for the quality of their work/efforts.
- Students must maintain notebooks/folders containing teacher-provided and personal notes.
- Students are responsible for completion of all assignments, readings, and presentations.
- Students must complete both a midterm and a final examination.

1070 HONORS COMMUNICATIONS



Grade(s): 12

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: Must have 85% or higher average in Honors English 11 or AP Language and Composition; or 92% or higher average in English 11; or teacher recommendation

Objectives: This course's focus is to preparing college-bound students. Students will increase skills in reading comprehension, writing, diction, listening, public speaking and critical thinking. State and national standards will be reinforced in this final year of high school. Emphasis will be on integrating information across the curriculum and applying acquired knowledge to the students' lives and their world in general. Students will develop skills in preparation for college placement exams.

Description: The writing component will prepare students for college-level writing. Emphasis will be on the expository skills of process and causal analysis, comparison and contrast, division and classification, definition, and example. Students will also narrate, argue, and describe. All genre of literature will be offered, and strategies for understanding, interpreting, and applying the content will be presented. Grammar, diction, and vocabulary lessons will concentrate on usage in effective writing. Speaking skills will be encouraged in class discussions and in individual presentations.

Expectations: Students will complete all assignments promptly, including essays, presentations and other homework. Students will read all assigned literature. Students will maintain a classroom journal consisting of a variety of writing assignments. Students will actively participate in all class activities.

1080 TECHNICAL COMMUNICATIONS

Grade(s): 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: English 11

Objectives: This course's focus is to prepare students who plan to enter the work force directly after high school. Students will continue acquiring skills primarily in technical writing, public speaking, and critical thinking. State and national standards will be reinforced in this final year of high school. Emphasis will be on integrating information across the curriculum and applying acquired knowledge to the students' lives and their world, in general.

Description: This course will concentrate on preparing students for life post high school, particularly the job market. This course will emphasize the technical writing process, with practice in preparing reports, instructions, memos, and other communications for business and industry, as well as effective uses of social media. Writing goals also include vocabulary development and improved grammar and mechanical conventions. Public speaking skills will also be emphasized through class discussion and individual presentations.

Expectations: Students will complete all assigned writing tasks, presentations, assignments and other projects. Participation in class discussion, note-taking and general preparedness is expected.

1090 ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION



Grade(s): 12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: Must have an overall 85% over higher average in AP English Language and Composition; or 92% average or higher in Honors English 11; or teacher recommendation

Objectives: The course's focus is to provide college-level work for seniors who are college-ready in the English field. Students will prepare (1) to take the national Advanced Placement (AP) test in Literature and Composition; (2) to examine the many genre of literature; (3) to engage in insightful discussion of literary ideas, form, and technique; (4) to study and employ advanced rhetoric, syntax, grammar, and structure; (5) to prepare students for active participation in class discussion as well as more formal public speaking presentations.

Description: The course will emphasize the major genre identified for Advanced Placement. Those genres include poetry, short story, drama, the novel, and film. Those who elect this course will be expected to think in the higher order of analysis and synthesis. Students will also write with quality and in quantity. Students will be active in class discussion and develop public speaking skills.

Reading Expectations:

- It is assumed that students can read and comprehend texts independently. The advanced reader must be able to analyze without coaching from the teacher.
- The reading selections are challenging. Advanced Placement deals with college level materials and, therefore, advanced vocabulary and length.

Writing Expectations:

- Students are expected to write extempore and at length.
- The teacher will expect to read student essays for intelligent commentary and reasoned argument.
- Mastery of English language usage, grammar, mechanics, spelling, and syntax is expected.
- Students will write at least once every two weeks. The minimum response for critical essays is 500 words.
- Rhetorical stance, recognition of audience, reasoning skills, diction, syntax, figurative language, mechanical, structural, and grammatical standards – all will be examined.

Other Expectations:

- Compositions will be due on the day they are required.
- Reading assignments must be done for assigned dates.
- Students are expected to participate fully in class discussion, as well as formal presentations.
-

1060 ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION



Grade(s): 11

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: a grade of 90% or above in Honors English 9 and 10, or with teacher recommendation

Objectives: The purpose of Advanced Placement Language and Composition is to enable students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. The students prepare to take the national Advanced Placement exam in Language and Composition.

Description: Advanced Placement Language and Composition engages students in becoming skilled readers of prose written in a variety of rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Students also engage in activities that help prepare them for future career/college planning throughout the year.

Expectations: Upon completion of the AP English Language and Literature course, students should be able to:

- Analyze and interpret samples of good writing, identifying and explaining an author's use of rhetorical strategies and techniques
- Apply effective strategies and techniques in their own writing
- Create and sustain arguments based on readings, research, and/or personal experience
- Write effectively for a variety of purposes and in a variety of ways

- Write thoughtfully about their own process of composition
- Evaluate, incorporate, and cite primary and secondary source documents in researched papers

In addition, AP English 11 students should be committed to academic excellence and rigor.

1100 CREATIVE WRITING I

**(This course is offered every other year.)*

Grade(s): 9 - 12

Credit(s): 0.5 Weight: 1.0 Day(s): 3

Prerequisite: None

Objectives: Students will experiment with writing in various genres of fiction and nonfiction.

Description: *Creative Writing* provides an exploratory venue for student composition. The course allows for creativity in topics/subjects of writing, but the format and genre of writing will be set for each individual assignment. The goal of the course is to study different types of writing and attempt them so students can explore their own writing talent in unique ways.

Expectations:

- Students are expected to read examples of expert writers in the various genres.
- Students are expected to be open to sharing portions of writing for discussion purposes (not at all times; there will be flexibility for when students feel comfortable sharing).
- Students are expected to maintain a journal in which they write on a daily basis which will be part of their portfolio which is submitted for a grade each marking period.
- Students are expected to submit writing samples for the different assignments in an effort to explore diverse genres of writing.
- Students are expected to submit drafts for teacher and/or peer revision on a regular basis as specified by the course syllabus.

1105 FILM AND LITERATURE

**(This course is offered every other year.)*

Grade(s): 9 - 12

Credit(s): 0.5 Weight: 1.0 Day(s): 3

Prerequisite: None

Objectives: Students enrolling in *Film and Literature* will view and analyze a variety of films while exploring the comparisons to fiction and nonfiction texts with the goal of encouraging students to be active and critical viewers and readers of film, texts, and the media.

Description: Film is often influenced by a text but should be critiqued individually while also making comparisons and connections to the original work. Students will read and analyze stories from different genres in order to compare and contrast the film interpretation. For some films, the class will analyze it as its own text based on literary and film analysis terms.

Expectations:

- Students are expected to read selected (sometimes excerpts of) novels, short stories, plays, etc. in order to analyze the process of interpreting a text and creating a film.
- At times, students are expected to read and respond to critical essays and articles in regard to the films studied. Students are expected to take a small quiz on the basic content of the film after the class finishes.
- For each story to film unit, students are required to fill out film guides, a guide that investigates the film in terms of literature.
- Students are expected to utilize film analysis (and literary) terminology in their responses.
- Students are expected to practice writing and analysis of films through response papers.
- Students are expected to participate in group discussions and/or presentations.

Expectations:

Reading Expectations:

- Students are expected to read selected novels, short stories, plays, etc. in order to analyze the process of interpreting a text and creating a film.

- At times, students will be expected to read and respond to critical essays and articles in regards to the films studied.

Writing Expectations:

- For each story to film unit, students will be required to fill out film guides, a guide that investigates the film in terms of literature.
- Students are expected to utilize film analysis (and literary) terminology in their responses.
- Students will be expected to practice writing and analysis of films through response papers.

Speaking Expectations:

- Students are expected to participate in group discussions and/or presentations.

1110 NEWSPAPER I/JOURNALISM I

Grade(s) 9-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: None

Objectives: To introduce students to basic journalistic concepts and skills.

Description: This course focuses on developing the skills needed for students to advance to Advanced Journalism and consequently contribute to the school newspaper, *The Arrowhead*, on a monthly basis. Students will be introduced to, and develop competency in, the journalistic style and structure of writing, photojournalism, and the technology required to produce the school newspaper. Media law, ethics, effective newspaper layout, and the different types of news stories will also be examined. Students will be able to apply concepts they have learned by contributing to the publication of the newspaper on an as-needed basis. Students will be assessed through completion of assignments.

Expectations: Students will be responsible for completing all assignments.

1140/1150 ADVANCED NEWSPAPER/JOURNALISM

Grade(s) 10-12

Credit(s): 0.5/1.0

Weight: 1.0

Day(s): 3 or 6

Prerequisite: None

Objectives: An average of 85% in Journalism I, as well as a signature of approval from the Journalism teacher

Description: This course focuses on applying the skills learned and applied in the student's previous year in Journalism. Students will create stories and articles in the journalistic style every month of the school year for the school newspaper, *The Arrowhead*. When needed, students will incorporate photography in their stories or articles. Skills using the technology associated with production of the newspaper and layout design will also be applied. Students will be assessed on their completion of assignments, as well as their ability to meet several deadlines a month.

Expectations: Students will be responsible for contributing to the school newspaper on a monthly basis, completing all assignments, and meeting newspaper deadlines.

1130/1131 YEARBOOK

Grade(s): 11-12

Credit(s): 0.5/1.0

Weight: 1.0

Day(s): 3 or 6

Prerequisite: Students must be accepted to the yearbook staff following a selection process. Students must fill out an application in January prior to scheduling according to a preset deadline. Students will need two teachers willing to act as references to their working abilities. After the deadline, the yearbook adviser will use that information to decide which students will be on the staff. This course is offered only on a Pass/Fail basis with credit awarded.

Objectives: To create a comprehensive record of the student life and events at Montoursville Area High School.

Description: This course focuses on developing skills in journalistic writing, interviewing and listening skills, graphic design, photography, business with sales and advertising, and computer programs, such as InDesign and Photoshop.

Expectations: Students will complete satisfactory work and meet deadlines for assigned work.

1260 INTRODUCTION TO DRAMA

Grade(s): 9

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: None

Objectives: To introduce students to basic theatre concepts, methods of acting, and performance techniques.

Description: Introduction to Drama is an exploratory course in which students will explore the nature of the actor's contribution to the theatre. Students will cultivate the art of acting, creating a character, emphasizing body movement, pantomime, voice projection, articulation, and overall stage presence.

Expectations: Students will:

- Experiment with improvisation
- Develop believable characters
- Assess and evaluate peer performances in a constructive way
- Be introduced to modes of performance acting
- Develop an appreciation for the theatre and dramatic arts

1265 DRAMA

Grade(s): 10 - 12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: None

Objectives: Students will explore basic theatre concepts, methods of acting, and performance techniques.

Description: Drama offers an opportunity for students in grades 10-12 to practice and cultivate acting skills. Students will cultivate the art of acting, creating a character, emphasizing body movement, pantomime, voice projection, articulation, and overall stage presence. Students will rehearse and perform various scenes in various styles, and students will gain knowledge of the aspects of theatre through research, reading, writing, performing, observing, and evaluating.

Expectations: Students will:

- Rehearse and perform monologues
- Experiment with improvisation
- Create character for assigned roles in one-acts, vignettes, and other small performances
- Assess and evaluate peer performances in a constructive way
- Be introduced to some of the history of theatre and modes of performance acting
- Develop an appreciation for the theatre and dramatic arts

Foreign Language

The goal of the Montoursville Area High School modern foreign language program is to expose students to a language and culture in order to make them knowledgeable and active members of a global society. Students will learn to use modern foreign languages for meaningful communication in both spoken and written form. The foreign language program emphasizes language as it is used in various real life situations that students are most likely to encounter in their futures.

7000 SPANISH I



Grade(s): 9 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: Students will begin to explore the Spanish language through the use of the National Foreign Language Standards of Communication, Cultures, Connections, Comparisons and Communities.

Description: Spanish I is an introduction to the Spanish language and the diverse cultures of Spanish speaking people from around the world. This course covers vocabulary related to greetings, numbers, after-school activities, descriptions of self and others, telling time, foods, asking questions, family, giving dates, clothing, and places and events. In addition, grammar topics will include a study of adjectives, nouns, pronouns, and various regular and irregular present tense verbs. By the end of this course, students will be able to understand and carry on basic conversations in Spanish, read, and write from within the grammatical level studied. They will also gain a better understanding of the Spanish language and its many cultures.

Expectations:

Students will be required to actively participate in classroom discussions, activities and projects. They must keep a grammar, vocabulary, and culture folder/binder.

7010 SPANISH II



Grade(s): 10 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: SPANISH I (*Recommended final average in SPANISH I of 85 or above*)

Objectives: Students will continue to explore the Spanish language through the use of the National Foreign Language Standards of Communication, Cultures, Connections, Comparisons and Communities.

Description: Spanish II is a continuation of the study of the Spanish language and the diverse cultures of Spanish speaking people from around the world. This course covers vocabulary related to household items, chores, sports, parts of the body, making phone calls, daily routines, and vacation and leisure activities. In addition, grammar topics will include a study of affirmative and negative words, adjectives, nouns, pronouns, and various regular and irregular verbs in the preterit tense. By the end of this course, students will be able to understand and carry on conversations in Spanish, read, and write from within the grammatical level studied. They will also gain a better understanding of the Spanish language and its many cultures.

Expectations: Students will be required to actively participate in classroom discussions, activities and projects. They must keep a grammar, vocabulary, and culture folder/binder.

7020 SPANISH III



Grade(s): 11 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: SPANISH II (*Required final average in SPANISH II of 85 or above*)

Objectives: Students will continue to explore the Spanish language through the use of the National Foreign Language Standards of Communication, Cultures, Connections, Comparisons and Communities.

Description: Spanish III is a continuation of the study of the Spanish language and the diverse cultures of Spanish speaking people from around the world. This course covers vocabulary related to going on a trip, sports and health, daily routines, shopping, legends and stories, preparing and describing foods, and making movies. In addition, grammar topics will include a study of adjectives, nouns, pronouns, commands, and various regular and irregular verbs in the preterit, imperfect, subjunctive, and future tenses. By the end of this course, students will be able to understand and carry on conversations in Spanish, read, and write from within the grammatical level studied. They will also gain a better understanding of the Spanish language and its many cultures.

Expectations: Students will be required to actively participate in classroom discussions, activities and projects in Spanish. They must keep a grammar and vocabulary binder, in addition to a composition notebook for journaling purposes. More emphasis will be placed on speaking and writing in Spanish, and participation in the Annual Spanish Festival is required.

7030 SPANISH IV



Grade(s): 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: SPANISH III (*Required final average in SPANISH III of 85 or above*)

Objectives: Students will continue to explore the Spanish language through the use of the National Foreign Language Standards of Communication, Cultures, Connections, Comparisons and Communities.

Description: Spanish IV is a continuation of the study of the Spanish language and the diverse cultures of Spanish speaking people from around the world. This course covers vocabulary related to camping, extended family, the beach, volunteer activities, media, environmental concerns, social awareness, jobs and careers, group discussions, travel preparations, computers, leisure activities, life in the city, school activities and events, and planning for the future. In addition, grammar topics will include a study of adjectives, nouns, pronouns, familiar and formal commands, and various regular and irregular verbs in the preterit, imperfect, future, conditional, perfect, and subjunctive tenses. By the end of this course, students will be able to understand and carry on conversations in Spanish, read, and write from within the grammatical level studied. They will also gain a better understanding of the Spanish language and its many cultures. More emphasis will be placed on literature, speaking, and writing.

Expectations: Students will be required to actively participate in classroom discussions, activities and projects in Spanish. They must keep a grammar and vocabulary binder, in addition to a composition notebook for journaling purposes. More emphasis will be placed on literature, speaking, and writing in Spanish, and participation in the Annual Spanish Festival is required.

7040 AP SPANISH LANGUAGE



Grade(s): 12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: SPANISH IV (*Required final average in SPANISH IV of 85 or above*)

Objectives: The AP Spanish Language course is designed for those students who wish to advance their command of the language and develop proficiency in all four skill areas: speaking, reading, writing, and listening.

Description: Class activities are designed to give students extensive practice in the integration of these skills, thus preparing students to demonstrate their Spanish proficiency level across three communicative modes: Interpersonal (interactive communication), Interpretive (receptive communication) and Presentational (productive communication).

The course is conducted in Spanish and uses authentic written and aural materials.

Listening Expectations:

- Students are expected to listen to a wide variety of spoken material and to identify main ideas and supporting details

Reading Expectations:

- Students are expected to read using a wide variety of printed material; to identify main ideas or plots, describe characters/people involved, analyze sequence of events and language employed through use of true/false activities, reordering of events, character analysis, and comprehension questions.
- Students are expected to raise their level of understanding by relating what is read with personal experiences, perspectives, and opinions.

Writing Expectations:

- Students are expected to write summaries or paraphrase sections of printed material, to write responses to emails and letters, and write analytical and persuasive essays.

Speaking Expectations:

- Students are expected to speak in a variety of modes
- Students are expected to participate in class discussion and collaborate in speaking scenarios and activities entirely in Spanish

FOREIGN LANGUAGE (*ONLINE*)



Grade(s): 9-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: Students will begin to explore a Foreign Language other than Spanish through the use of online learning.

Description: Courses are ordered through various online providers in the area of Chinese(Mandarin) 1-2, French 1-4, German 1-4, Japanese 1-2, Latin 1-2

Expectations: Students will be required to complete the course and schedule it in their schedule. The class will meet in the library with supervision only. Students will interact with their online teacher and are expected to work at their own pace.

Mathematics

The mathematics department at the high school has three recommended sequences that may be followed: the Honors/Advanced Placement sequence, the College Preparatory sequence, and the Technical sequence. Various electives are offered in addition to the required courses. Real world applications are a central theme. Technology is an important instructional tool.

| Sequence | Grade 9 Course | Grade 10 Course | Grade 11 Course | Grade 12 Course |
|---------------------|-----------------------------------|--|-----------------|---|
| Honors/AP | Honors Algebra II | Honors Algebra II <i>or</i> Honors Trig | Honors Pre-Calc | AP Calculus <i>or</i> Statistics <i>or</i> Elective |
| College Prep | Geometry | Algebra II | Trigonometry | Statistics <i>or</i> Pre-Calculus |
| Technical | Algebra I <i>or</i> Algebra IA | Algebra IB <i>or</i> Geometry | Technical Math | Consumer Review Math |
| Elective | | | Technical Math | Technical Math <i>or</i> Consumer Review Math <i>or</i> Statistics |

Requirements

All students must fulfill the district's graduation requirements of three years of mathematics in grades 9-12. The minimum mathematics requirement is a sequence of Algebra IA, Algebra IB, and Technical Math.

Placement in Courses

In order to achieve success in mathematics, it is crucial the students be placed in the appropriate course at the appropriate time. Care will be given to assure students have the necessary skills for success in a particular course before enrollment is approved.

3000 ALGEBRA IA



*0.5 credits through NCAA

Grade(s): 9-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: To become proficient using algebraic expressions and functions and to model real world situations using algebra.

Description: Students will work with the language of algebra, equations, inequalities, functions, simplifying expressions, and graphs.

Expectations: Students are expected to complete classroom and homework assignments and to earn passing grades on quizzes and tests. It is recommended that students planning on taking Geometry and Algebra II earn a final grade of 90 or better.

3001 ALGEBRA IB



*0.5 credits through NCAA



Grade(s): 10-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Successful completion of Algebra IA

Objectives: To become proficient using algebraic expressions and functions and to model real world situations using algebra.

Description: Students will work with equations, graphs, systems of equations, quadratic functions, square roots, exponents, scientific notation radicals, factoring and the Pythagorean Theorem.

Expectations: Students are expected to complete classroom and homework assignments and to earn passing grades on quizzes and tests. It is recommended that students planning on taking Geometry and Algebra II earn a final grade of 90 or better.

3010 ALGEBRA I



Grade(s): 9-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: At least an 80% in Pre-Algebra and at least a 70% on the Algebra Readiness test.

Objectives: To become proficient in using algebraic equations and functions; to model real-world situations using Algebra.

Description: Students will work with the language of algebra, equations, functions, inequalities, exponents, right triangles, radical expressions, and polynomials. Integrated throughout the course is work with graphing (with and without a graphing calculator).

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes.

3170 COMPUTER PROGRAMMING

Grade(s) 9 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Algebra 1

Objectives: To learn the general principles of computer programming and to design programs that work on a windows-style screen, using the computer languages of BASIC and VISUAL BASIC.

Description: This course does not require specific knowledge or abilities with computers. First students will learn the general principles of computer programming. Then the real fun begins as students design their own screens, create objects that move and change, and generally make things happen on the screen. You'll organize buttons to click, boxes to enter information, and all sorts of other features.

Using BASIC, students will learn to calculate with numbers and variables and to format printouts. Other topics include decision-making and conditional branching, loops, counters and totals, arrays for sets of data, sorting data and text, and using subroutines.

Then, using VISUAL BASIC, students will design screens, learn a range of features and their uses, use timers, organize displays of data, and create projects with multiple screens. By the end of the year, students will create a game or an alternative project of their choice.

Expectations: Students will show their skills by writing computer programs designed to accomplish given tasks and through tests on general programming skills.

3040 ALGEBRA II



Grade(s): 9 -12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Successful completion of Algebra I & Geometry and a recommendation of at least an 80% in Geometry.

Objectives: To become proficient in using algebraic equations and functions; to model real-world situations using Algebra.

Description: Students will work with the language of algebra, equations, functions, permutations, linear relationships, linear systems, polynomials, probability, and statistics. The types of functions include linear, quadratic, polynomial, exponential, logarithmic, and rational. Integrated throughout the course is work with graphing (with a graphing calculator).

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes.

Textbook: 2001 Prentice Hall, Advanced Algebra: Tools for a Changing World, ISBN-10: 0134190114

3020 HONORS ALGEBRA II



Grade(s): 9

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: Successful completion of an Algebra I and a Geometry course with a recommendation of at least a 92% in Algebra I and Geometry or an 80% in Honors Algebra I and Honors Geometry

Objectives: To become proficient in using algebraic expressions and functions; to model real world situations using algebra.

Description: Students will work with models, functions, permutations, linear relationships, linear systems, quadratic equations, polynomial functions, rational functions, probability, exponential functions, and logarithmic functions. Integrated throughout the course is work with graphing (with a graphing calculator).

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes.

Textbook: 2001 Prentice Hall, Advanced Algebra: Tools for a Changing World, ISBN-10: 0134190114

3050 GEOMETRY



Grade(s): 9-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Successful completion of Algebra I and a recommendation of at least an 80% in Algebra I. Passed the Algebra I Keystone Exam.

Objectives: To become proficient in using geometric terminology and reason deductively using the postulates, theorems, and corollaries of geometry.

Description: Students will work with the language of geometry, reasoning, proof, parallel and perpendicular lines, triangles, quadrilaterals, similarity, right triangle trigonometry, area, volume, circles, and constructions.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes.

Textbook: 2008 Prentice Hall, Geometry, ISBN-10: 0133659488

3070 TRIGONOMETRY



Grade(s): 10-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Successful completion of Algebra I, Algebra II, and Geometry.

Objectives: (1) To become proficient in the use of the trigonometric functions as applicable to real world situations and to the study of advanced mathematics; (2) to become proficient in graphing conic functions.

Description: Students will work with solving triangles, the unit circle, identities and inverse trigonometric functions.

Expectations: Students are expected to complete assignments and to earn passing grades on tests.

Textbook: 2001 Addison-Wesley, Lial Hornsby Schneider, Trigonometry, ISBN-10: 032108599X

3100 PRE-CALCULUS



Grade(s): 11-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Successful completion of Algebra I, Algebra II, and Geometry with a recommendation of at least and 80% in Honors Algebra II or a 92% in Algebra II.

Objectives: To achieve the necessary knowledge to become proficient in Advanced Algebra topics needed to be successful in Calculus or your college mathematics course.

Description: They will work with Advanced Algebra topics including linear, polynomial, radical, exponential, and logarithmic functions, conics (circles, parabolas, ellipses, and hyperbolas), and sequences and series (arithmetic and geometric). Integrated throughout the course is working with graphing, real world problems, geometry, and calculators.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. They will be expected to present their work to the whole class. It is recommended students who plan to take AP Calculus (AB) should earn at least an 80%.

3125 HONORS TRIGONOMETRY



Grade(s): 10 (if they passed Honors Algebra II)

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: Successful completion of Algebra I, Algebra II, and Geometry with a recommendation of at least an 80% in Honors Algebra II.

Objectives: To become proficient in the use of trigonometric functions as applicable to real world situations and to achieve the necessary knowledge to become proficient in Advanced Algebra topics needed to be successful in Calculus or your college mathematics course.

Description: Students will work with solving triangles, the unit circle, graphing identities and inverse trigonometric functions. They will work with Advanced Algebra topics including linear, polynomial, radical, exponential, and logarithmic functions, conics (circles, parabolas, ellipses, and hyperbolas), and sequences and series (arithmetic and geometric). Integrated throughout the course is working with graphing, real world problems, geometry, and calculators.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. They will be expected to present their work to the whole class. It is recommended students who plan to take AP Calculus (AB) should earn at least an 80%.

Textbook: 2001 Addison-Wesley, Lial Hornsby Schneider, Trigonometry, ISBN-10: 032108599X

3130 HONORS PRE-CALCULUS



Grade(s): 11 (if they passed Honors Trigonometry)

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: Successful completion of Algebra I, Algebra II, and Geometry with a recommendation of at least an 80% in Honors Trigonometry.

Objectives: To achieve the necessary knowledge to become proficient in Advanced Algebra topics needed to be successful in Calculus or your college mathematics course.

Description: They will work with Advanced Algebra topics including linear, polynomial, radical, exponential, and logarithmic functions, conics (circles, parabolas, ellipses, and hyperbolas), and sequences and series (arithmetic and geometric). Integrated throughout the course is working with graphing, real world problems, geometry, and calculators.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. They will be expected to present their work to the whole class. It is recommended students who plan to take AP Calculus (AB) should earn at least an 80%.

3080 TECHNICAL MATH

Grade(s): 11 and 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Students must have passed Algebra I or Algebra IA and Algebra IB

Objectives: To prepare students to be successful in applying mathematical concepts.

Description: Students will work with basic algebraic concepts, right triangular trigonometry, applied geometry, ratio and proportions, and variation problems. Emphasis on technical application as well as using technology.

Expectations: Students are expected to complete classroom and daily assignments and to earn passing grades on tests and quizzes.

3090 CONSUMER AND REVIEW MATH

Grade(s): 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: May only be taken by seniors

Objectives: To become proficient in solving problems that consumers might encounter throughout their lives.

Description: Students will review basic skills, solve problems about income, money management, buying consumer goods and services, borrowing money, investments, health care, transportation, travel, and housing.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes.

3140 ADVANCED PLACEMENT CALCULUS (AB)



Grade(s): 12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: Honors Pre-Calculus

Objectives: To gain the necessary knowledge to pass the AP Calculus (AB) exam in early May and earn college credit or placement while still in high school.

Description: Students will learn the rules of Calculus: limits, differentiation, and integration. Emphasis will be placed on the application of the rules not simply on the processes themselves. Use of a graphing calculator will be integrated throughout the course.

Expectations: Students are expected to complete classroom and daily homework assignments including sample free response questions and to earn passing grades on tests and quizzes. They will be expected to present their work to the whole class.

3150 STATISTICS



Grade(s): 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Successful completion of Algebra II or Honors Algebra II with a recommendation of at least an 80% in Honors Algebra II or 92% in Algebra II

Objectives: To become proficient using concepts of statistics and probability and to model real world situations using statistics and probability.

Description: Students will work with frequency distributions and graphs, probability and counting rules, discrete probability and normal distributions, confidence intervals, hypothesis testing, and different types of variances.

Expectations: Students are expected to complete classroom and homework assignments and to earn passing grades on quizzes and tests.

Music

Much has been written about music and the aesthetic growth that comes from study, performing and listening to music. Plato said that there is no other discipline of education that can train the soul. Shakespeare said that music has charms to soothe the savage beast. And Longfellow wrote that music is the universal language.

It is our sincere desire to teach a love of music, make students musicians for life, as well as teaching the art of performing music. We hope to do this through performance ensembles such as Band, Chorus, and Jazz Band. These ensembles are co-curricular courses and have requirements that extend beyond the school day. Other music electives offer opportunities for students to excel in Instrumental Lessons and Music Theory.

6000 MUSIC THEORY I

Grade(s): 9-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: Must be able to read music

Objectives: To provide the opportunity for each student to: (1) participate in a music program that reflects the continuing advancements in music education; (2) understand the importance of scale; (3) identify scales, intervals, triads, and their tonal qualities; (4) become competent at harmonizing melodies with I, IV, and V chords; (5) write a simple ABA style composition; (6) foster creativity; (7) promote a lifetime of enjoyment and participation in music at a higher level.

Description: Class meets every day. Students will be taught the following Musical concepts: (1) Notation – Students will learn rules and skills of music notation, and will be able to apply these skills in preparing a musical manuscript. (2) Scales, Tonality, Key, and Mode – students will learn to write diatonic, chromatic, pentatonic, whole tone, and blues scales. They will also write the Dorian and Mixolydian Modes. Students will learn the concepts of tonality, scale relationship, and transposition. (3) Intervals and Transportation – Students will learn to apply the scale concepts in building musical intervals. Students will also use the new skills they’ve learned with interval building to become proficient at transposing from one scale to another. (4) Chords – Students will be able to write major, minor, augmented, and diminished triads. Students will also learn these concepts: scale degrees, chord position, primary and secondary triads, and seventh chords. (5) Cadences and Non-Harmonic Tones – Students will begin to learn the structural elements of musical composition by learning the following concepts: harmonic cadence, rhythmic cadences, phrase, and non-harmonic tones. Students will be able to compose their own original music phrases that are complete harmonic phrases with fundamental cadences. (6) Melodic Organization – Students will learn the following melodic concepts: motive, sequence, phrase, and period. Students will be able to compose their own original musical phrases that are complete harmonic phrases with fundamental cadences. (7) Original Composition Projects – Students will apply the skills and concepts that they have learned to produce several original compositions and several arrangements of existing melodies.

Expectations: This course will include participation in all class projects. Each student will produce a mixed-media portfolio at the end of each year that demonstrates each student’s participation in the class projects. The portfolio will be the biggest consideration in determining grades for this course.

6010 MUSIC THEORY II

Grade(s): 10-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: Must be able to read music and Music Theory I

Objectives: To provide the opportunity for each student to: (1) participate in a music program that reflects the continuing advancements in music education; (2) understand the importance of scale; (3) identify scales, intervals, triads, and their tonal qualities; (4) become competent at harmonizing melodies with I, IV, and V chords; (5) write a simple ABA style composition; (6) foster creativity; (7) promote a lifetime of enjoyment and participation in music at a higher level.

Description: Class meets every day. Students will be taught the following Musical concepts: (1) Notation – Students will learn rules and skills of music notation, and will be able to apply these skills in preparing a musical manuscript. (2) Scales, Tonality, Key, and Mode – students will learn to write diatonic, chromatic, pentatonic, whole tone, and blues scales. They will also write the Dorian and Mixolydian Modes. Students will learn the concepts of tonality, scale relationship, and transposition. (3) Intervals and Transportation – Students will learn to apply the scale concepts in building musical intervals. Students will also use the new skills they’ve learned with interval building to become proficient at transposing from one scale to another. (4) Chords – Students will be able to write major, minor, augmented, and diminished triads. Students will also learn these concepts: scale degrees, chord position, primary and secondary triads, and seventh chords. (5) Cadences and Non-Harmonic Tones – Students will begin to learn the structural elements of musical composition by learning the following concepts: harmonic cadence, rhythmic cadences, phrase, and non-harmonic tones. Students will be able to compose their own original music phrases that are complete harmonic phrases with fundamental cadences. (6) Melodic Organization – Students will learn the following melodic concepts: motive, sequence, phrase, and period. Students will be able to compose their own original musical phrases that are complete harmonic phrases with fundamental cadences. (7) Original Composition Projects – Students will apply the skills and concepts that they have learned to produce several original compositions and several arrangements of existing melodies.

Expectations: This course will include participation in all class projects. Each student will produce a mixed-media portfolio at the end of each year that demonstrates each student’s participation in the class projects. The portfolio will be the biggest consideration in determining grades for this course.

6100 CONCERT CHOIR

Grade(s): 9-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: To become a member of this choir, students must audition for the director.

Objectives: Students (1) *Create* by utilizing musical elements to realize original music ideas through performance, (2) *Listen/Respond* by critically assessing music performances which reflect a wide diversity of peoples, styles, and times, (3) *Perform* individually and within an ensemble using various textures and styles.

Description: Concert Choir is a mixed (SATB), non-auditioned ensemble that meets on odd days. During rehearsals the following topics/skills will be covered: an eclectic repertoire of style and origin, music reading skills, aural skills, voice range, and proper singing techniques. Repertoire will be performed at concerts scheduled throughout the school year. As a member of this choir, students are eligible to audition for the ‘ville Harmonic Vocal Ensemble (auditioned extra-curricular choir) and music festivals (District, Regional, and State Choir).

Expectations: Marking period grades will be determined by class participation, concert and dress rehearsal attendance, in-class evaluations, and sight-singing quizzes. Each student is expected to do his or her best to become an independent singer, contribute to the group in a positive manner, and strive for excellence.

6160 APPLIED LESSONS

Grade(s): 9-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: Current member of the band program.

Objectives: To provide the opportunity for each student to (1) participate in a music program that reflects the continuing advancements in music education; (2) sequentially develop the comprehensive cognitive and physical requisites, musical literacy, and affective concepts to perform and enjoy music; (3) foster creativity; (4) experience our rich local and national musical heritage through performances; (5) develop a sense of self-worth, sense of community, and understand and contribute to our culture and aesthetic sensitivity; (6) promote a lifetime of enjoyment and participation in music performance.

Description: Class meets once a week. Students will be taught the proper instrumental techniques. Emphasis will be placed on developing comprehensive musicianship through instrumental performances. Subjects covered include idiomatic tone quality, musical performance techniques, all major and minor scales, and music reading skills.

Expectations: This course will include participation in both the marching and concert band. Attendance at all classes and the ability to show evidence of mastery of your instrument are the biggest considerations in determining grades for this course.

6200 BAND

Grades(s): 9-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: Current member of the band program

Objectives: To provide the opportunity for each student to (1) participate in a music program that reflects the continuing advancements in music education; (2) sequentially develop the comprehensive cognitive and physical requisites, musical literacy, and affective concepts to perform and enjoy music; (3) foster creativity; (4) experience our rich local and national musical heritage through performances; (5) develop a sense of self-worth, sense of community, and understand and contribute to our culture and aesthetic sensitivity; (6) promote a lifetime of enjoyment and participation in music performance.

Description: Class meets days. Students will be taught the proper instrumental and ensemble techniques. Emphasis will be placed on developing comprehensive musicianship through ensemble performances. Subjects covered include idiomatic tone quality, musical performance techniques, all major and minor scales, and music reading skills.

Expectations: This course will include participation in both marching and concert band. Attendance at all rehearsals and performances is the biggest consideration in determining grades for this course.

Physical Education and Health

Department consists of physical education/health and strength training/health.

650 INTRO TO PHYSICAL EDUCATION/HEALTH

Grade(s): 9 *REQUIRED*

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: Required

Objectives: To have an introductory class to our physical education program at the high school that creates a foundation to build upon during 10th, 11th, and 12th grades.

Description: Each 9th grader will have physical education every day for a marking period. Each week the students will be learning a different sport or activity. Soccer, Flag Football, Volleyball, Strength Training, Basketball, Speedball, Circuit Training, Floor Hockey, Lacrosse, Badminton, and/or Softball will be some of the activities offered. The classes will vary a little due to weather and facilities. The class will give the students opportunity to learn the basics of several different sports.

Expectations: This class will be used as an introduction to High School Physical Education as well as an opportunity to learn new skills and activities with their peers and allow Physical Education Teachers to build on skills and knowledge of activities that they already have. We will offer a wide variety of activities so they will know if they would like to take a regular Physical Education class or a Strength Training class.

8000 PHYSICAL EDUCATION

Grade(s): 10-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: Required

Objectives: To help students learn and use essential knowledge concerning personal health and fitness. To provide students opportunities to practice skills, games, and activities related to making wise decisions and actions concerning their own lifetime health and fitness habits.

Description: Physical Education class meets 3 times in the 6 day cycle. Students will meet on days 1,3,5 or 2,4,6. Classes will participate in sports and activities or Wellness Center training on alternate days. Sports include soccer, football, basketball, floor hockey, field hockey, volleyball, softball, baseball, track and field, speedball and kickball. Wellness Center days will include various forms of cardiovascular work (treadmills, elliptical, bikes, etc.), strength training, flexibility training, ab work, walking/running programs, nutrition, muscle study, weight management, body mass index, fitness testing and other health and fitness related issues.

Expectations: Students will be expected to participate in all activities unless medically or otherwise excused. Physical Education folders and homework assignments are also a required part of class. Physical Education clothing will be required for each class. Students will be expected to follow instructions efficiently and complete all class, homework and activity assignments.

8050 STRENGTH TRAINING FOR LIFE

Grade(s): 10-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: Must complete freshman year of high school to be eligible to elect Strength Training for Life.

Objectives: To provide our students the knowledge, techniques, and skill to live a long, healthy lifestyle.

Description: The course can be chosen as an elective, or may be chosen as a student's Physical Education requirement. This course creates a more in-depth offering of skills, drills, techniques, and academic challenges focusing on the total body and mind development.

Expectations: The students will leave Montoursville Area High School and will eventually enter the working world with the confidence and knowledge to live a healthy emotional, mental, and physical lifestyle.

8020 DRIVER EDUCATION (SUMMER COURSE)

Grade(s): 9-12

Credit(s): 0.25

Weight: 1.0

Day(s): 6 hours/day for 5 days in the summer

Prerequisite: None

Objectives: To provide students with the basic knowledge, skills and understanding of situational (offensive and defensive) driving and lifelong driving. **Description:** The course is offered to all grades 9-12. Students will be shown and will practice the I.P.D.E system of driving. Students will learn to Identify, Predict, Decide, and Execute situations involving driving to enable efficient driving habits and awareness. **Expectations:** It is the design of the course to have students gain focused awareness of the art and skill of driving. Students will have a better grasp on what it takes to develop offensive and defensive skills over a lifetime. They will develop "action" skills that will enable better planning and decisions while driving.

You must take the theory portion of the program in order to be eligible to take the over the road training. The 30 hour class will be offered once in June. If you cannot attend this class, you may take an accredited PDE on-line theory course to be eligible to take over the road driving. Contact MASD high school office for a list of accredited on-line theory courses. The department of education mandates 30 hours of classroom time in order to be a PDE certified Driver Education program. Once you have completed the classroom portion and have received your PA learner's permit, you may be scheduled to start over the road training. Instructors are certified to issue the PA junior driver's license test within the 6th session of the training. After you have completed 30 hours of theory course work and 6 hours of driver training you will be issued a certificate of completion you may present to your insurance company.

Please complete the attached form and return to the Montoursville Area School District Office with a check made payable to: **Montoursville Area School District** for **\$350 (Remote 30 hour theory class in or \$335 if taking the theory course on-line**

Please complete the online enrollment form at <https://forms.gle/iHkB7s1oZ4bc5RMV6> and make payment with credit card online or a send a check or money order to the Montoursville Area School District Office made payable to:

Montoursville Area School District for \$350 or \$335

c/o Jessica Reich

50 North Arch Street

Montoursville PA, 17754

- Classes will run 8:30-3:00 with a 30 minute lunch. Lunch will **NOT** be provided. Bringing a packed lunch is suggested.
- The student must attend all 5 classes for 6 hours in each session for the required 30 hours. After payment is received and the class has started, **NO REFUNDS WILL BE MADE!**

- Registration and payment must be received **by MAY 27th**.
- A Minimum of 30 students must be enrolled by May 27th or the session will be cancelled and money will be returned.
- Class will be held at Montoursville Area High School

What the student receives:

- 30 hours of classroom instruction
- 6 hours of over the road training
- PA license test administered
- Certificate of completion of a PDE Driver Education program

Must pay \$350 to enroll in this class

Must pay \$335 if student takes an online 30 hour course to sign-up for 6 hours over-the-road.

Please contact J.C. Keefer via e-mail with any questions: jkeefe@montoursville.k12.pa.us

**MONTOURSVILLE AREA HIGH SCHOOL
DRIVER EDUCATION PROGRAM**

30 HOURS CLASSROOM REGISTRATION:

Name _____ AGE _____

PARENT CONTACT PHONE _____

STUDENT CONTACT PHONE _____

SCHOOL DISTRICT _____ E-MAIL _____

Session 1 June ? Online Session* _____

Please check which session you will be attending

****Online course not offered by MAHS, only driving portion***

THE FOLLOWING MUST BE RETURNED TO THE DISTRICT OFFICE:

- THIS COMPLETED REGISTRATION FORM
- A CHECK OR MONEY ORDER PAYABLE TO MASD IN THE AMOUNT OF \$350.00
- FOR ONLINE SESSION, A CHECK OR MONEY ORDER PAYABLE TO MASD IN THE AMOUNT OF \$335. ONLINE COURSE MUST BE COMPLETED BEFORE THE SCHEDULING OF OVER-THE-ROAD

6 HOURS ON THE ROAD TRAINING REGISTRATION: **This section will not be completed until the student receives his/her PA Learner's Permit. Once the student has taken the classroom portion and receives their permit, we will complete the rest of this form**

DRIVER ID# _____

TEST ELIGIBILITY DATE _____

PERMIT EXPIRATION DATE _____

PLEASE READ THE AGREEMENT AND SIGN:

I UNDERSTAND THAT THIS PROGRAM IS A CONTINUATION OF THE DRIVER EDUCATION PROGRAM. AT THE CONCLUSION OF THE SIX HOURS OF BEHIND THE WHEEL TRAINING, THE STUDENT WILL BE ELIGIBLE TO TAKE THEIR PENNSYLVANIA DRIVERS EXAM IN ACCORDANCE TO THE CONTRACT WITH THE DEPARTMENT OF TRANSPORTATION. STUDENTS WILL BE SCHEDULED BY ELIGIBILITY DATE AND/OR REGISTRATION TURN IN DATE. HOWEVER, THIS IS NOT A GUARANTEE THAT THE EXAM WILL BE GIVEN ON THE EXACT ELIGIBILITY DATE. ALSO, IN ACCORDANCE WITH THE COMMONWEALTH, THE INSTRUCTOR RESERVES THE RIGHT TO REFUSE ADMINISTRATION OF THE PENNSYLVANIA DRIVERS EXAM.

PARENT SIGNATURE _____

STUDENT SIGNATURE _____

Science

The Science Department curriculum is designed to provide students with a firm foundation of basic scientific principles through lecture and laboratory work. It strives to have students learn these principles through inquiry-based laboratories and “real-world” sciences.

| Sequence | Grade 9 Course | Grade 10 Course | Grade 11 Course | Grade 12 Course |
|------------------------------|-------------------------|---|---|--|
| College Prep – 4 year | Honors Biology | Honors Chemistry <i>and/or</i> Electives | Honors Physics <i>and/or</i> Electives | Electives |
| College Prep – 2 year | Life & Physical Science | Biology <i>or</i> STEM <i>or</i> Technical Biology | Chemistry <i>or</i> Environmental Science <i>or</i> Honors Physics | AP Biology <i>or</i> STEM <i>or</i> Chemistry <i>or</i> Environmental Science |
| Technical | Life & Physical Science | STEM <i>or</i> Environmental Science <i>or</i> Chemistry | Technical Biology | Electives |
| Elective | | AP Biology <i>or</i> Environmental Science <i>or</i> STEM | AP Biology <i>or</i> AP Chemistry <i>or</i> AP Environmental Science <i>or</i> Environmental Science <i>or</i> STEM <i>or</i> Anatomy for Health Sciences | AP Biology <i>or</i> AP Chemistry <i>or</i> AP Physics <i>or</i> AP Environmental Science <i>or</i> Environmental Science <i>or</i> STEM <i>or</i> Anatomy for Health Sciences |

4000 LIFE & PHYSICAL SCIENCE



Grade(s): 9

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: The objective of the course is to expose students to the basic fundamentals as well as practical principles of chemistry and physics through classroom discussion and laboratory investigation.

Description: The subject of physical science is specifically aimed at laying the foundations of physics and chemistry as they pertain to practical applications. Students will be exposed to a wide array of topics ranging from metrics & measurement, thermodynamic principles, matter, atomic structure, the Periodic Table and periodicity, chemical bonding, and acids, bases, and salts in chemistry to Newton’s Laws of Motion, forces, forces in fluids, and simple machines in physics. Students will gain an appreciation for how scientific data is obtained by participating in many open-ended laboratory investigations. They will use learned scientific techniques and principles to analyze results and draw conclusions following the scientific method. Students will be assessed in various manners such as class participation, group projects, individual projects, labs, homework, quizzes, and exams.

Expectations: Students in physical science will be expected to correlate lecture material to laboratory experiments or investigations to practical, real-life situations. In order to satisfactorily complete these tasks, students will be expected to engage themselves in classroom discussions, actively complete daily homework assignments, and immerse themselves in assigned laboratory, group and individual projects. Students will be required to take a final examination for the course.

4010 HONORS BIOLOGY



Grade(s): 9

Credit(s): 1.5

Weight: 1.05

Day(s): 9

Prerequisite: Physical Science. This course is taught as a pre-AP Biology course. Expectations and rigor for this course are high. Recommendation from Middle School Science teacher and a 93 average in physical science are required.

Objectives: To introduce and provide students with an in-depth study of the basic principles, requirements and function of living organisms.

Description: Biology is the study of living organisms, as such it will focus on: (1) the requirements of life; (2) the processes required to maintain life; (3) the characteristics of living organisms. Students will achieve this knowledge through a variety of means including lecture, lab investigations, and classroom activities and projects. Assessment of student understanding will be conducted through class participation, group or individual activities, lab investigations, homework, quizzes, and tests. Students will: (1) conduct and analyze experiments and lab investigations; (2) apply basic chemistry principles to biological process; (3) demonstrate an understanding of cell structures and processes; (4) compare and contrast various biological processes (i.e. photosynthesis/cellular respiration, transcription/translation); (5) compare and contrast DNA and RNA; (6) apply concepts of genetics and genetic laws; (7) examine the evidence that life changes over time; (8) investigate ecological diversity and relationships between plants, animals, and society.

Expectations: Students in Honors Biology will be expected to correlate lecture material to laboratory investigations. Students will be expected to work collaboratively in a laboratory setting to problem solve, brainstorm, and analyze investigations in a way that demonstrates an understanding of the laboratory work. Students will be expected to complete classwork and homework assignments, engage in classroom discussions, and to perform at their highest possible level. Students should expect to study 15 minutes every night. Students will be required to complete a midterm and final examination for this course.

4020 BIOLOGY



Grade(s): 9-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Physical Science

Objectives: To introduce students to the basic principles, requirements, and function of living organisms.

Description: Biology is the study of living organisms, as such it will focus on: (1) the requirements of life; (2) the processes required to maintain life; (3) the characteristics of living organisms. Students will achieve this knowledge through a variety of means including lecture, lab investigations, and classroom activities and projects. Assessment of student understanding will be conducted through class participation, group or individual activities, lab investigations, homework, quizzes, and tests. Students will: (1) conduct and analyze experiments and lab investigations; (2) apply basic chemistry principles to biological process; (3) demonstrate an understanding of cell structures and processes; (4) compare and contrast various biological processes (i.e. photosynthesis/ cellular respiration, transcription/translation); (5) compare and contrast DNA and RNA; (6) apply concepts of genetics and genetic laws; (7) examine the evidence that life changes over time; (8) investigate ecological diversity and relationships between plants, animals, and society.

Expectations: Students in Biology will be expected to correlate lecture material to laboratory investigations. Students will be expected to work collaboratively in a laboratory setting to problem solve, brainstorm, and analyze investigations in a way that demonstrates an understanding of the laboratory work. Students will be expected to complete classwork and homework assignments, engage in classroom discussions, and to perform at their highest possible level. Students will be required to complete a midterm and final examination for this course.

4021 TECHNICAL BIOLOGY



Grade(s): 10, 11 or 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Life & Physical Science

Objectives: To introduce students to the basic principles, requirements and functions of living organisms.

Description: Biology is the study of living organisms, as such it will focus on: (1) the requirements of life; (2) the processes required to maintain life; (3) the characteristics of living organisms. Students will achieve this knowledge through a variety of means including lecture, lab investigations, and classroom activities and projects. Assessment of student understanding will be conducted through class participation, group or individual activities, lab investigations, quizzes, and tests. Students will: (1) conduct and analyze experiments and lab investigations; (2) apply basic chemistry principles to biological process; (3) demonstrate an understanding of cell structures and processes; (4) compare and contrast various biological processes (i.e. photosynthesis/ cellular respiration, transcription/translation); (5) compare and contrast DNA and RNA; (6) apply concepts of genetics and genetic laws; (7) examine the evidence that life changes over time; (8) investigate ecological diversity and relationships between plants, animals, and society.

Expectations: Students in Biology will be expected to correlate lecture material to laboratory investigations. Students will be expected to work collaboratively in a laboratory setting to problem solve, brainstorm, and analyze investigations in a way that demonstrates an understanding of the laboratory work. Students will be expected to complete classwork and engage in classroom discussions, and to perform at their highest possible level. Students will be required to complete a midterm and final examination for this course.

4030 HONORS PHYSICS



Grade(s): 11-12

Credit(s): 1.5

Weight: 1.05

Day(s): 9

Prerequisite: Must pass Algebra II or teacher recommendation

Objectives: To help students understand the physical world as interplay between observation, experiment, mathematics, and theory.

Description: A hands-on, project-oriented course offering general background for college bound students or non-college bound students projecting a science-related field. Motion is fundamental to the physical world and much of the first marking period will be devoted to describing and explaining motion. Successive marking periods will cover momentum and energy, light and sound, and lastly, electricity and magnetism.

Expectations: Students are expected to arrive on time, be prepared for class, and be respectful towards others. They are expected to work individually and as part of a team. They are expected to complete assignments involving bookwork, essays, and laboratory work. All exams are open notes, and thus, maintaining a quality notebook is encouraged.

4050 ENVIRONMENTAL SCIENCE



Grade(s): 11-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Must have completed Chemistry and Biology

Objectives: To understand and develop an appreciation for the delicate balance between human actions and the impacts of those actions on the planet.

Description: Environmental science is the study of the natural sciences in an interdisciplinary context that always includes consideration of people and how they have influenced various systems around us. It includes many aspects of Ecology, basic biology, environmental science, and current events are used to examine the earth. Topics include natural resources, population, pollution, ecosystems, biogeochemical cycles, conservation, agriculture, renewable energy, PA flora and fauna identification, and biodiversity. Students are

made aware of environmental phenomena and damage as well as practical solutions to these global issues. Global issues are made relevant by explaining their effect on Montoursville, Pennsylvania. Students will engage in these issues through investigative labs, projects, activities, and various assessments.

Expectations: Students are expected to understand the impact of their actions on their environment. Independent of their opinion on climate change, global economy, and environmental damage, students should take from. They will also be expected to link concepts discussed in class and use critical thinking skills to apply them to real world and local situations. Students will also be expected to practice self-discipline and ensure they follow through with class procedures. They must also work effectively, respectfully, and professionally on classwork.

4060 HONORS CHEMISTRY



Grade(s): 10-12

Credit(s): 1.5

Weight: 1.05

Day(s): 9

Prerequisite: Students must have passed either Algebra I, or both Algebra IA and Algebra IB, and have taken or are currently enrolled in Geometry. They must also have passed Honors Biology or Biology.

Objectives: The objective of the course is: (1) to acquaint students with scientific ideals in chemistry; (2) to develop necessary skills for students to handle and manipulate materials and equipment in the collection of data; (3) to develop students' attitudes and curiosity with chemical phenomena.

Description: Honors chemistry is the study of the composition of matter and the changes it undergoes. It is also a course that is wrought with rigor and is designed as a college preparatory class. Students will investigate such topics as chemical reactions, predictions and analysis of related unknown quantities using stoichiometry, atomic structure & periodicity, gas laws and their relationships, chemical reactivity, chemical bonding, acid-base chemistry, and molecular compositions of various chemical states. Mathematical interpretation will be emphasized throughout each chemical principle. Laboratory techniques, including data collection, interpretation of results, and scientific writing, as it applies to chemical theory, will be significantly stressed. Students will be assessed in many forms such as, laboratory work, homework, quizzes, and exams.

Expectations: Students in honors chemistry will be expected to use lecture material as a vehicle for laboratory experimentation and comprehension. Students will be expected to analyze laboratory results, make calculations with collected data, complete observations, and incorporate these into a scientific lab report. In order to satisfactorily complete these tasks, students will be expected to engage themselves in classroom discussions, actively complete daily homework assignments, and immerse themselves in assigned laboratory investigations. This is a college preparatory class and students will be expected to complete more involved and in-depth course assignments compared to the Chemistry course. Students will be required to take both a mid-term and final examination for the course.

4070 CHEMISTRY



Grade(s): 10 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: The objective of the course is to provide students with an overall general foundation of chemical principles and ideals, as well as to make tangible connections between those chemical phenomena and the real world. Students will use those connections to gain a better appreciation for society and their surroundings.

Description: Chemistry is an introductory-level course designed to allow students to investigate chemical principles as well as allow students the opportunity research daily chemical phenomena. It is a course designed for all students, as a significant emphasis will be placed on learning chemical ideology that can be applied to life situations. Some of the course topics that students will investigate include gas laws and their relationships, periodic table and periodic

table trends, chemical reactivity, stoichiometry, chemical bonding, and acid-base chemistry. Throughout the course, students will engage in problem-solving situations as well as decision-making laboratory experiments utilizing learned techniques, including data collection, interpretation of results, and scientific writing. All of these components will be stressed so as to understand the importance of careful observation of the world around us. Student will be assessed in many aspects such as class participation, laboratory work, projects, homework, quizzes, and exams.

Expectations: Students will be expected to integrate knowledge obtained from lecture material and laboratory experimentation in order to explain various real world problem-solving situations. Students will be expected to analyze laboratory results, data calculations, and observations and incorporate them into a scientific report. In order to satisfactorily complete these tasks, students will be expected to engage themselves in classroom discussions, actively complete daily homework assignments, and immerse themselves in assigned laboratory investigations and projects. Students will be required to take a mid-term and final examination for the course.

4075 S.T.E.M.



Grade(s): 10 - 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: S.T.E.M., or Science, Technology, Engineering, and Mathematics is a course that will have students perform inquiry-based investigations on topics such as alternative energies, climate change, force and motion, ecology, electricity, forensics, land use, or any other relevant problem presented in current time.

Description: STEM (Science, Technology, Engineering, and Math) is an integrated, interdisciplinary, and project-based approach to learning. It encourages curiosity, creativity, artistic expression, collaboration, computational thinking, communication, problem solving, critical thinking, and design thinking. Students looking for exposure in career pathways for engineering, environmental, manufacturing, inventing, renewable energy, as well as science and technology will use foundational skills necessary for all mentioned fields. S.T.E.M. will supply students the freedom to direct their own learning during investigations they design, which will encourage student ownership of the learning process and allow small groups of students to work towards a common goal while practicing soft skills. Due to being largely performance-based students will be assessed primarily on their work ethic, motivation, effort, and follow through.

Expectations: Students will be expected to work in small groups, drive instruction, explore through investigations, and move the whole class towards a common goal. Students will also be expected to practice self-discipline and ensure they follow through with class procedures. They must also work effectively, respectfully, and professionally on classwork.

4110 ANATOMY & PHYSIOLOGY

Grade(s): 10-12 (10th graders based on Teacher Recommendation)

Credit(s): 1.5

Weight: 1.05

Day(s): 9

Prerequisite: Successfully completed Biology and completed or currently enrolled in Chemistry, Physics, S.T.E.M. Those with only S.T.E.M. must be approved through the counselor who will clear it with the teachers.

Objectives: (1) To have an understanding of the general principles of anatomy and physiology; (2) to have a thorough knowledge of the structure(s) and function(s) of the following organ systems of the human body: digestive, cardiovascular, skeletal, respiratory, excretory, reproductive, nervous, muscular, endocrine, and integumentary; (3) to have a general understanding of the physiological diseases and disorders that occur within the human body; (4) to develop skills to function effectively in laboratory situations; (5) to develop an appreciation for their own body by focusing on lifestyle and health.

Description: The main focus of the course will be exploring the human body by unifying themes. These three integrating themes are (1) interrelationships of body organ systems; (2) homeostasis and (3) complementarity of structure and function. Demonstrations and labs will be used to reinforce topics of discussion, as well as computer software and the Internet.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on assessments. Students will be expected to work in groups cooperatively and collaboratively when working on performance tasks as well as laboratory situations. They will be expected to present work to the teacher, small groups, and the whole class. Finally, all students will be required to participate in the Feline (cat) dissection, which consists of nearly a marking period of grades. There is no alternative assignment for this dissection.

4090 ADVANCED PLACEMENT CHEMISTRY



Grade(s): 11-12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: Honors Chemistry and excellence in mathematical courses and standardized mathematical testing are recommended. It is recommended that you take Honors Pre-Calculus or AP Calculus, along with Honors Physics at the same time of this course. If you are uncertain about meeting the prerequisite or recommended requirements, a conference with the AP instructor is recommended.

Objectives: The objective of the course is: (1) to prepare students for the AP test; (2) to prepare students for college level chemistry; (3) to further the investigation of the chemical principles developed in Honors Chemistry.

Description: AP Chemistry is an internationally recognized curriculum. The course material is a rigorous exploration of chemical principles that are the equivalent of a freshmen college level chemistry course. Students wishing to pursue a science, engineering, or medical career are ideal candidates for this course.

Expectations: To succeed in AP Chemistry a student needs to: (1) demonstrate a commitment to excellence in preparation for the standardized AP test; (2) complete extensive homework assignments; (3) work as an effective team member during cooperative testing assignments; (4) complete tests, quizzes, and laboratory assignments/reports. Students will be required to take a mid-term and final examination for the course.

4100 ADVANCED PLACEMENT PHYSICS C: MECHANICS



Grade(s): 12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: Physics and currently enrolled in AP Calculus is recommended

Objectives: To offer students a college-level, calculus-based physics course.

Description: The content of this course is that required for the AP Physics C – Mechanics exam, provided the student has the required Calculus background.

Expectations: Students are expected to arrive on time, be prepared for class, and be respectful towards others. They are expected to work individually and as part of a team. They are expected to complete assignments involving bookwork, essays, and laboratory work. They are expected to take the national exam administered in May.

4120 ADVANCED PLACEMENT BIOLOGY



Grade(s): 10-12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: Successful completion of Honors Biology or Biology (with recommendation of Biology teacher); successful completion or concurrent enrollment in Honors Chemistry or Chemistry.

Objectives: The objectives of this course are (1) to prepare students to successfully take the AP® Biology exam; (2) to prepare students for college level Biology; (3) to further develop critical thinking skills and science practices.

Description: AP® Biology follows the Course and Exam Description provided by The College Board. The course is designed to offer students a solid curriculum in introductory college-level biology. Students interested in pursuing a career in biology, environmental science, medicine, or other life science fields are ideal candidates for this course.

Expectations: Students will be expected to come to class prepared with all required materials for class and any questions from the previous day's material. Students will be expected to complete and submit all assignments on time and should expect to study at least 15 minutes each night. All students will be required to function as a member of a group as well as individually in laboratory situations and will be expected to utilize critical thinking skills and science practices to design, conduct, and analyze various laboratory investigations.

4130 ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE



Grade(s): 10-12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: Successful completion of Honors Biology or Biology with a teacher recommendation.

Objectives: To supply a conceptual framework which promotes future success in college undergraduate environmental studies.

Description: AP Environmental Science is an undergraduate level course designed for students who wish to pursue a college degree in the fields of environmental science, ecology, wildlife, resource management, etc. The course will include a laboratory part and will push students to draw connections between human actions and consequences. Students will be asked to apply a wide range of scientific concepts from Biology, Chemistry, and Earth Science to natural and man-made problems. They will also use scientific principles, concepts, and relevant methodologies to understand the interrelationships of the natural world, identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

Expectations: Students will work at a level equal with a college undergraduate science course. Students will also be expected to practice self-discipline and ensure they follow through with class procedures. They must also work effectively, respectfully, and professionally on classwork.

4200 PRE-NURSING

Grade(s): 12

Credit(s): 1.75

Weight: 1.05

Day(s): 9

Prerequisite: Successful completion of Biology, Chemistry, Anatomy & Physiology (pre- or corequisite), Medical Terminology (pre- or corequisite). There will also be an application that will require 3 teacher recommendations. Students will be required to obtain their Child Abuse History Clearance (CY113), Federal Criminal History Record Information (CHRI-Fingerprint), and the Pennsylvania Criminal Access to Criminal History (Act 34). **Flu Shots and COVID vaccinations are required per Geisinger employee standards.**

Objectives: The objective of this course is to teach students about the science needed in the medical field. In addition to coursework and through a partnership with Geisinger Health System, students will also have real-world hospital experiences while working as a student co-op Nursing Assistant.

Description: The course is intended for those students interested in pursuing a career in Nursing. The course will cover a review of basic medical terminology, anatomical vocabulary and gross anatomy, as well as Health Insurance Portability and Accountability Act (HIPAA), universal precautions, principles of Health Science and CPR and First Aid Certifications (Basic Life Support through American Heart Association). Students will also spend 35 weeks (1 day per week) as a student co-op Nursing Assistant Geisinger Medical Center in Danville. Bus transportation will be provided to these experiences. They will be paid internships.

Expectations: Students are expected to come to class prepared for that day's activities. This means they should have all the required materials for class, homework should be completed and any questions from the previous day's material. Students will be expected to be respectful of other students and classroom instructors. All students will be required to function as a member of a group and by themselves in laboratory situations. Students will maintain a professional appearance and attitude when at the medical center. All students are expected to be in school Thursday's following Geisinger unless ill with a doctor's excuse. Minimal absences are expected, as students are already missing 1 school day each week.

Students will be chosen based on the following criteria: school attendance, work ethic, desire to work in a medical career, and 3 teacher recommendations.

4210 HOSPITAL SERVICES

Grade(s): 11-12

Credit(s): 0.5

Weight: 1.05

Day(s): *

Prerequisite: Successful completion of Technical Biology or Biology and Chemistry or STEM or Environmental Science. There will also be an application that will require 3 teacher recommendations. Students will be required to obtain their Child Abuse History Clearance(CY113), Federal Criminal History Record Information(CHRI-Fingerprint), and the Pennsylvania Criminal Access to Criminal History(Act 34). Students must turn 17 by July 1.

Objectives: The objective of this course is to teach students about the many careers in a hospital to support its mission that are not medical careers.

Description: The course is intended for those students interested in pursuing a career after high school in Environmental Services. These careers include janitorial, landscaping, and IT among others. Students will be expected to attend the Medical Careers class for the following: Health Insurance Portability and Accountability Act(HIPPA), universal precaution, and CPR and First Aid Certifications. It will be the students responsibility to attend these classes regardless of what else they have scheduled. This is not a class that will be in the student schedule. Students will also have the opportunity to spend 6-8 weeks rotating through various jobs at Geisinger Medical Center in Danville. Bus transportation will be provided to these experiences.

Expectations: Students will maintain a professional appearance and attitude when at the medical center. They will be required to attend the Medical Career class when asked to attend regardless of what else is scheduled. There is a high probability of employment through Geisinger Medical Center in Danville when completed. The course will be limited to 20 students. Students will be chosen based on the following criteria: school attendance, work ethic, desire to work in a medical career, and 3 teacher recommendations.

Social Studies

A school within a school, the Otstonwakin Academy is the name of the Social Science Department at Montoursville. Otstonwakin was the name of Madame Montour's Indian village, which was located on the banks of the Loyalsock Creek, near present day Montoursville. The Department encourages students to: (1) develop a spirit of inquiry, and to think logically; (2) learn independently, as well as cooperatively; (3) acquire the knowledge and skills essential to life-long learning; (4) practice habits of good citizenship that are vital to health of our community.

The Department offers the following courses. Students are strongly encouraged to augment the regular course of study by enrolling in electives offered by the Department. The Department also offers membership in Rho Kappa, an academic honor society for students who have taken electives within the Department, demonstrated excellent academic performance in their course work, participated in community service, and who exhibit the attributes of good citizenship.

Students enrolled in the Academic Decathlon, Law, Honors CSS, and AP Economics courses have the opportunity to participate in a variety of statewide competitions. In addition to course work, the Department encourages interested students to participate in the Social Science Seminar and the History Club.

2000 CIVICS & GOVERNMENT



Grade(s): 9

Credit(s): 1.0

Prerequisite: None

Weight: 1.0

Day(s): 6

Objectives: Students will analyze and understand the set-up and operation of the United States government. Students will become aware of and demonstrate the duties and responsibilities of citizens of the US. Students will read, analyze, and interpret the Documents of Freedom: the Declaration of Independence, the US Constitution, and the US Bill of Rights. Students will analyze the Civil Rights Movement and the Court's role in advancing social reform issues. Students will compare and contrast the intended purpose and duties of Congress, the President, and Supreme Court with the actual duties of the modern federal system. Students will understand and differentiate between different forms of government.

Description: This is a year-long required course for students in 9th grade focused on the study of US government. Students will learn about different plans of government and complete a unit on comparative governmental systems. Following the unit on comparative government, students will learn about federalism and how it is interpreted and applied in the United States. Studying the Constitution, students will learn about its creation and its interpretation in US history. Further study of the Preamble, Articles, and Amendments of the Constitution will allow students to interpret its meaning. In-depth units on Congress, the Presidency, and the Supreme Court will aid students in understanding how the government operates and what it does on a day-to-day basis. Elections, the roles of political parties, and political ideology will be included in the course. Additional units of study on US citizenship and flag conduct will be included in the course. Study of the current political situations and current events occurring throughout the world will be a continuous part of study through the course.

Expectations: Students will understand how the government operates and how they, as citizens, can actively take part in being a part of the USA. Students will be prepared for class. Students will become informed members of the community able to defend and support opinions about the operation of the US government.

2010 HONORS CIVICS & GOVERNMENT



Grade(s): 9

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: None

Objectives: Students will analyze and understand the set-up and operation of the United States government. Students will become aware of and demonstrate the duties and responsibilities of citizens of the US. Students will read, analyze, and interpret the Documents of Freedom: the Declaration of Independence, the US Constitution, and the US Bill of Rights. Students will analyze the Civil Rights Movement and the Court's role in advancing social reform issues. Students will compare and contrast the intended purpose and duties of Congress, the President, and Supreme Court with the actual duties of the modern federal system. Students will understand and differentiate between different forms of government. Students will read and analyze primary sources as they relate to the course.

Description: Civics is a required course for all 9th grade students and this course is an accelerated and in-depth study of Civics with greater preparation for future Honors and AP level classes. Students will learn about different plans of government and how they are set up in other countries. Students will complete a unit on comparative governmental systems and study the current political situations that are occurring throughout the world. Following the unit on comparative government, students will learn about federalism and how it is interpreted and applied in the United States. Studying the Constitution, students will learn about its creation and its interpretation in US history. Further study of the Preamble, Articles, and Amendments of the Constitution will allow students to interpret its meaning. In-depth units on Congress, the Presidency, and the Supreme Court will aid students in understanding how the government operates and what it does on a day-to-day basis. Elections, the roles of political parties, and political ideology will be included in the course. Additional units of study on US citizenship and flag conduct will be included in the course.

Expectations: Students will understand how the government operates and how they, as citizens, can actively take part in being a part of the USA. Students will be prepared for class. Students will write essays based on primary sources and topics covered in class. Students will become informed members of the community able to defend and support opinions about the operation of the US government.

2020 AMERICAN HISTORY



Grade(s): 10

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Civics & Government

Objectives: (1) Students will identify and analyze the political and cultural contributions of individuals and groups to United States History (Political leaders, military leaders, cultural and commercial leaders, and innovators and reformers.); (2) Students will identify and analyze primary documents, material, artifacts, and historical sites important to United States history; (3) Students will analyze how continuity and change has influenced United States history (Belief systems, commerce and industry, innovations, politics, settlement patterns and expansion, social organizations, transportation, and trade.) (4) Students will identify and analyze conflict and cooperation among social groups and organizations in United States history. (Domestic instability, ethnic and racial relations, labor relations, immigration, migration, and military conflicts.)

Description: This course explores American history from the American Revolution through present day events. Subjects include the Revolution and Constitution, the Rise of Political Parties, Antebellum Society, Westward Expansion and the North-South Divide, the Civil War and the Problems of Rebuilding the Union, the Conquest of the Frontier, the Rise of Industry and Urbanization, the Progressive Era of Reform, the Spanish-American War and the Age of Empires, World War I, the Roaring Twenties, the Great Depression, World War II, the Cold War, Civil Rights Movements, the Vietnam War, the end of the Cold War, September 11 and the Wars on Terror, and current topics in United States History.

Expectations: Students will achieve a high level of understanding of American History. Students will think critically about historical issues and apply knowledge of history to current events.

2040 WORLD HISTORY



Grade(s): 11

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: The course is designed to give students a broad overview of the history of the world. Students should leave this course with a greater geographical and historical base of knowledge as well as a deeper understanding of the world around them. This should lead to an increased appreciation for the many traditions, cultures, religions, and peoples found in the world today.

Description: World History is a survey course encompassing a study of the earliest civilizations to the major events of the Twentieth Century which have directly shaped the world in which we live today. The course begins with a focus on the modern era – the World Wars, the Cold War, regional conflict, and the rise of Russia and China. Following this, the world’s earliest civilizations in Egypt, Mesopotamia, India and China are examined. Moving forward in time from these cradles of civilization, ancient Greece and Rome and their contribution to Western Civilization are major topics of study. The Middle Ages, Renaissance, Reformation, and the French Revolution as well as the major religious and moral traditions of the world are some of the other major units covered in World History. In addition to the core content, there is also a large emphasis on geography and current events.

Expectations: Students will be assessed through homework, exams, and daily participation in class work and discussion. In addition, students will be engaged in independent writing, visual projects, class presentations, and reading of books, current events, etc.

2060 CONTEMPORARY SOCIAL SCIENCE(CSS)



Grade(s): 12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: (1) To cultivate in students the habit of reading newspapers and news magazines, watching television news programming, and using on-line sources to become informed citizens; (2) to develop student interest in and awareness of how government works at the local, state, and national level; (3) to encourage student interest in politics and voting; (4) to develop student interest in and awareness of international relationships and diplomacy; (5) to promote in students appreciation for the history and traditions of their community; (6) to develop student understanding of basic economic concepts, such as supply and demand, and enable students to comprehend the complexities of fiscal and monetary policy; (7) to prepare students for adult life by developing their knowledge of the law, insurance, taxation, and investing.

Description: CSS is designed to prepare students for the responsibilities of adulthood and active citizenship in a democratic society. The course is divided into 12 units of study along with a midterm essay and final exam test.

Expectations: Students are expected to participate actively in class, to be informed about current events, and to read editorials. Students are also expected to read independently, and hand in a reading response each marking period. Additional writing, quizzes, and tests are used to assess student knowledge and comprehension. Students are also expected to participate in the We the People competitive program for study of the Constitution. All students will complete an exit plan as the culminating project of the last marking period.

2070 HONORS CONTEMPORARY SOCIAL SCIENCE



Grade(s): 12

Credit(s): 1.0

Weight: 1.05

Day(s): 6

Prerequisite: 90 averages in American History and World History, or 90 average in AP United States History and AP World History

Objectives: (1) To cultivate in students the habit of reading newspapers and news magazines, watching television news programming, and using on-line sources to become informed citizens; (2) to develop student interest in and awareness of how government works at the local, state, and national level; (3) to encourage student interest in politics and voting; (4) to develop student interest in and awareness of international relationships and diplomacy (5) to promote in students appreciation for the history and traditions of their community (6) to develop student understanding of basic economic concepts, such as supply and demand, and enable students to comprehend the complexities of fiscal and monetary policy; (7) to prepare students for adult life by developing their knowledge of the law, insurance, taxation, and personal finance; (8) to challenge students to learn, read, write, and study at the collegiate level.

Description: This course is taken in place of Contemporary Social Science (CSS). Advanced CSS is designed to prepare students for the responsibilities of adulthood and active citizenship in a democratic society. This is a rigorous course intended for students who want to challenge themselves to learn and study at the collegiate level.

Expectations: Students are expected to participate actively in class, to be informed about current events, and to read editorials. Students will draft book reviews, I-Search research papers, and reviews of journal articles to meet the reading and writing requirements of Advanced CSS. Students are also expected to participate in the We the People competitive program for study of the Constitution. Additional writing, quizzes, and tests are used to assess student knowledge and comprehension. All students will participate in the Otstonwakin Roundtable, an online social studies seminar of their written work. All students will complete an exit plan as the culminating project of the last marking period.

2080/2081 ADVANCED PLACEMENT MACRO/MICRO ECONOMICS



Grade(s): 11-12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: None

Objectives: (1) To develop students' knowledge and understanding of the theories and applications of principles of microeconomics and macroeconomics; (2) to prepare students for the Advanced Placement exams.

Description: AP Microeconomics and AP Macroeconomics are two separate courses, but they are designed to be taken together in the same year. Microeconomics focuses upon how consumers and firms operate in various market structures. It includes issues of supply and demand, how firms make decisions on pricing, spending, and production, and the role of government in situations of market failure. Macroeconomics is the study of the economy as a whole. It includes measurements of economic growth, employment, and inflation, fiscal and monetary policies government and financial institutions use to achieve economic goals, and issues of international trade. These courses are intended for students interested in developing their theoretical understanding of economics, for students looking to challenge themselves at the collegiate level, and for students interested in earning college credit by taking the AP exams.

Expectations: These courses are electives taken mostly by seniors who are also taking other advanced courses. While they are not intended to be overly demanding on time outside of class, they are challenging; students are expected to devote the time and attention needed to grasp the concepts and develop the skills necessary to succeed in a college-level class. Students are assessed primarily by tests, although there may be other assignments on occasion. Students are expected to work seriously toward preparation for the AP exams in microeconomics and macroeconomics.

2090 PSYCHOLOGY

Grade(s): 11-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: To help students analyze and understand their own behavior, the behavior of others, and the ways people interact and influence each other.

Description: Do you like getting into people's heads and figuring out what makes them tick? Do you like to think about your own behavior and your motivations? This course is meant to explore the reasons people do what they do. We will analyze individual and group behaviors. The goal is to help you recognize patterns of behavior, examine a variety of causes and motivations, and learn ways to change yourself and influence others. Specific topics include the development of the individual from young childhood through the life cycle (complete with a six-week placement at Lyter Elementary School), personality formation, behavior, the brain, mental illness and treatment, interpersonal relationships, the effects of groups and culture on the individual, and the structure and functioning of our society. This course is designed to be useful to all students, whatever their career plans. The focus is on practical applications in everyday life.

Expectations: Students will participate in class discussions and activities as well as complete projects. Students will design and perform a project of their own choice (such as a survey or observation). Also, for several weeks during the school year, you will not attend the regular psychology class. Instead, you will go to Lyter Elementary School to work with young students, or you may choose to work with an alternate special population. This opportunity is offered to enhance your understanding of human behavior through direct, hands-on experience.

2095 AP PSYCHOLOGY

Grade(s): 11-12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: None (students are encouraged to take or have already taken Psychology, Statistics, Biology, or AP Biology)

Objectives: The Advanced Placement Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. The Advanced Placement Psychology course will offer students the opportunities to learn about the explorations and discoveries made by psychologists over the past century. Students will get the chance to assess some of the differing approaches adopted by psychologists, including biological, behavioral, cognitive, humanistic, psychodynamic, and sociocultural perspectives. Students will also learn the basic skills of psychology research and develop critical thinking skills. The Advanced Placement Psychology course aims to provide students with a learning experience equivalent to that of most college introductory psychology courses. This course will prepare students to successfully conquer the AP Psychology Exam.

Description: The purpose of the Advanced Placement course in Psychology is to introduce students to the systematic and scientific study of behavior and mental processes of human beings and animals. Students are exposed to the psychological facts, principles, and phenomena associated with the major subfields within psychology. The AP Psychology course stresses critical thinking, reading, and writing within the context of scientific methodology and questioning. Students are introduced to the major topical areas of psychology by studying core concepts and theories and by learning the basic skills of psychological research. A thematic approach is used to provide students with tools for mastering the broad content area of an introductory course. These themes include: nature vs. nurture; multiple factors influence behavior; psychology is empirical, and psychology is diverse.

Expectations: Students will be given a list of terms to identify for each chapter. These identifications will be collected and graded as homework for every chapter we cover. Students should have a notebook and a 3 ring binder for notes and handouts. These should be brought to class every day. You are expected to take notes on class discussion and material presented in class. Students are ultimately responsible for their own learning and are expected to read assignments on time and come to class prepared to take part in discussions. There is a strong writing component on

the AP Exam that requires frequent exercise and rehearsal that demonstrates analysis and application of scientific concepts. You will be expected to learn how to write effective analytical and free-response essays. In preparation for the AP Exam, students will take a mock AP exam which will count as a test grade.

2100 LAW

Grade(s): 11-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: None

Objectives: Students will learn basic legal rights in the context of Criminal and Civil law.

Description: This course explores the criminal justice process from arrest through conviction. Other topics covered include: the nature and causes of crime, crimes against people, crimes against property, controversial crimes, capital punishment and the juvenile justice system. Students will participate in a mock trial, as well as view actual trials at the county courthouse. A tour of the Lycoming county prison is planned.

Expectations: Students will attain a working knowledge of how the U.S. justice system operates.

2141 HISTORY THROUGH FILM II

**(This course is offered every other year.)*

Grade(s): 9-12

Credit(s): 0.5

Weight: 1.0

Day(s): 3

Prerequisite: None

Objectives: (1) To give students practical experience in critical analysis by evaluation full length feature films as historical evidence. (2) to motivate students in the interrogation of traditional historical sources by exposing them to relevant written material on past events. (3) to use films as a means of motivating students to study selected topics in United States history.

Description: History Through Film II will examine Hollywood feature films and historical dramas as historical evidence. Students will learn about selected US Historical time periods (Cold War to present day) for about four class periods before viewing a historical based movie. Students view movies on various topics such as the Cold War, Vietnam, the turbulent 70s, Iranian Hostage Crisis, Wars in Iraq and Afghanistan, and apartheid in South Africa. Students will complete movie viewing guides, projects, and quizzes after learning about the selected time period in history.

Expectations: Students are expected to come to class and focus on watching the selected films. Some movies are rated R and will require parent permission. Students will read and annotate selected readings (primary, secondary, film reviews), create maps and complete geography assignments when applicable, work with partners and/or small groups, research events or historical figures (individually or with small groups), and compose film critiques.

2030 ADVANCED PLACEMENT U.S. HISTORY



Grade(s): 10

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: Course taken in place of American History. Students must have a 90 average in Social Science courses and/or teacher recommendation for placement in class.

Objectives: (1) Students will identify and analyze the political and cultural contributions of individuals and groups to United States History (Political leaders, military leaders, cultural and commercial leaders, and innovators and reformers.); (2) students will identify and analyze primary documents, material, artifacts, and historical sites important to United States history; (3) students will analyze how continuity and change has influenced United States history (Belief systems, commerce and industry, innovations, politics, settlement patterns and expansion, social organizations, transportation, and trade.) (4) students will identify and analyze conflict and cooperation among social groups and

organizations in United States history. (Domestic instability, ethnic and racial relations, labor relations, immigration, migration, and military conflicts.)

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

Expectations: Students should learn to assess historic materials-their relevance to a given interpretive problem, their reliability, and their importance-and to weigh the evidence and interpretations presented in historical scholarship. This AP United States History course will thus develop the skills necessary to arrive at conclusions based on an informed judgment and to present reasons and evidence clearly and persuasively in essay format.

2050 ADVANCED PLACEMENT WORLD HISTORY: MODERN



Grades(s): 11

Credit(s): 1.0

Weight: 1.10

Day(s): 6

Prerequisite: Must have at least a 90 average in American History or at least an 80 average in AP US History. Students with a lower average may be considered for placement in this course only with a strong recommendation from a previous social studies teacher who can attest to their ability to do the work involved in an AP course. Any student not meeting the above criteria may also take the course if they scored a three or better on the AP US History exam.

Objectives: The objective of this course is to give students the skills and knowledge necessary to understand and analyze the continuities and changes found throughout world history (c. 1200 to the present) and the processes, causes, and consequences of these continuities and changes. Additionally, through the various readings, writing assignments, and classroom experiences, students will be prepared to take the AP World History: Modern exam.

Description: Students will study world history from about 1200 C.E. to the present. The course breaks world history down into four major time periods: (1) 1200 – 1450; (2) 1450 – 1750; (3) 1750 – 1900; (4) 1900 – Present. Students will engage in a significant amount of reading and writing intended to equip them with the knowledge and skills necessary for success on the AP exam. As with any AP course, the reading and work required will be at a college level.

Expectations: Students will be expected to: (1) Construct and evaluate arguments – to use evidence to make plausible arguments; (2) Use documents and other primary data – to develop skills necessary to analyze point of view and context, and to understand and interpret information; (3) Assess continuity and change over time and over different world regions; (4) Understand differing interpretations of history through analysis of context, point of view, and frame of reference; (5) Realize the relevance and apply knowledge of world history to contemporary developments.

2110 ADVANCED PLACEMENT U.S. GOVERNMENT AND POLITICS



Grade(s): 11-12

Credit(s): 0.5

Weight: 1.10

Day(s): 3

Prerequisite: 90 average in American History and World History or 80 average in AP United States History and AP World History

Note: This course may be taken as an elective, or in place of Contemporary Social Science (CSS) when taken together with Advanced Placement Economics.

Objectives: (1) To develop in students knowledge of important facts, concepts, and theories pertaining to U.S. government and politics; (2) to develop in students understanding of the typical patterns of political processes and behavior and their consequences; (3) to develop in students the ability to analyze and interpret basic data relevant to U.S. government and politics; (4) to discuss with students current issues related to U.S. government and politics; (5) to prepare students to score a 3 or better (qualified) on the Advanced Placement exam; (6) to challenge students to learn and study at the collegiate level.

Description: AP U.S. Government is intended for students interested in developing their theoretical understanding of U.S. government and politics, including the constitutional underpinnings of U.S. government, the organization and powers of the Congress, the presidency, the bureaucracy, and the courts, judicial interpretations of civil rights and liberties, the political beliefs and behaviors of citizens, the role of political parties and interest groups, the impact of mass media, and the process of policymaking by the national government. This course is intended for students looking to challenge themselves at the collegiate level, and for students interested in earning college credit by taking the AP Exam.

Expectations: This course is an elective taken primarily by seniors who are also taking a number of other advanced courses. The course is challenging, and the work load is demanding. Students are expected to read and write extensively and independently. All students are expected to work seriously toward preparation for the AP exam in U.S. Government and Politics.

Technology Education

Formerly called Industrial Arts or Industrial Arts/Technology, Technology Education is a general education program that involves a broad spectrum of knowledge and hands-on activities that recognizes the importance of a safe and healthy technologically literate work force. The students will be taught the application of tools, materials, equipment, processes and systems used to solve problems and research and develop new ideas that may improve the quality of life. The purpose will be to help every student develop the ability to select and safely use materials, tools, equipment, techniques and processes to answer questions, understand explanations and solve problems encountered in real life situations. Technology education is the practical application of math equations, science theories and computer concepts to make a better future.

6610 METALWORKING I

Grade(s): 9-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: At the completion of this course the students will be able to; (1) recognize safety issues and concerns, (2) identify hand tool names and applications, (3) measure in both standard and metric units, (4) read basic blue prints, (5) generate a drawing using AutoCAD software, (6) build a coin box project using the equipment, processes related to sheet metal, welding and metal fabrication, (7) construct a brain game project using the foundry and machining processes and techniques, (8) build a working screwdriver tool using machining and forging application, (9) build a shepherd's hook using forging, metal fabrication and welding application, (10) identify metal classifications and the different shapes.

Description: This course is designed to provide students with a general knowledge of metalworking. It will promote good work ethics; following all safety rules; taking responsibility for a clean work environment; be on time and satisfactory completing various projects. The students will build 2-4 required projects learning the following areas; sheet metal, foundry, machining, welding, metal fabrication, forging, blue print reading and AutoCAD 2011 software. The students will be encouraged to; design, plan and construct an individual project of their own. The students will learn relative information; new skills on various processes, materials, hand tools, measurement, power hand tools, power equipment and vocabulary. This course will introduce the following welding procedures; (OFW-C) Oxyacetylene (weld, cutting), GMAW Gas Metal Arc Welding (mig), SMAW Shield Metal Arc Welding (stick), Plasma Cutting and with practice on these new skills. This course can become a foundation in helping students in a career path decision for the many metalworking fields.

Expectations: The student will be expected to practice all safety rules in all areas of metalworking. Create and design a safety poster. Complete all reading and written assignments on various subjects relating to this course. Start - follow through - finish the following required projects established by the teacher; Shepherd's Hook, Screwdriver, Table Game, and Coin-Jewelry Box. Work cooperatively in a small group to solve an engineer design problem; CO 2 dragster and compete with other groups. Create plans, construct and finish a project that is student designed. Safely demonstrate and perform basic welding operations in; OFW Oxy-Fuel Welding-cutting, GMAW Gas Metal Arc Welding (mig), Plasma cutting. Successfully perform basic machining techniques and process on an engine lathe, vertical mill, and drill press, and select the proper tap and die threading tools. Organize and keep a neat folder with a project-planning portfolio.

6650 ADVANCED METALWORKING

Grade(s): 10-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Metalworking I

Objectives: At the completion of this course the students will be able to; (1) recognize all safety rules in each area of metalworking, (2) will be able to work independently in all areas of the metalworking shop,(3) will respect all; hand tool, power tools, power equipment, machinery, welding equipment and material, (4) have an appreciation to the type of measuring they like to use either standard (imperial) or metric units, (5) understand the importance of good drafting skills to be able to communicate ideas on paper, (6) know the importance of good maintenance skills in keeping machines and equipment in good working order, (7) successfully produce working drawing using CAD and 3D software , (8) plan and build individual projects, (9) apply all welding applications to each particular job, (10) operate a plasma cutter.

Description: This course is designed to provide students with an intermediate level of knowledge for metalworking. It will promote good work ethics; following all safety rules; taking responsibility for a clean work environment; be on time and satisfactory completing numerous projects. The students will plan individual projects of various areas of interest like; automotive, sports equipment, outdoor equipment, yard equipment, trailers, etc. In this course students will; sketch, mechanical draw, design, plan material for their own individual projects. Which will apply their full knowledge in all areas of metalworking; sheet metal, foundry, machining, welding, metal fabrication, forging. This course will continue to study and practice the operations of the following welding procedures; (OFW-C) Oxy-Fuel (weld, cutting), GMAW Gas Metal Arc Welding (MIG), SMAW Shield Metal Arc Welding (stick), GTAW Gas Tungsten Arc Welding (TIG), plasma cutting. This course can become a foundation in helping students in a career path decision for the many metalworking fields.

Expectations: The student will be expected to practices all safety rules in all areas of metalworking. Respect all equipment, tools, supplies, projects, other students and their belongings as a student member of this course. Complete all reading and written assignments on various subjects relating to this course. Complete the following journals; project, hand tool, power machines and power hand tools, welding equipment. Start and finish all individually planned projects. To continue to work cooperatively with each other to solve design problem; Estimate the time and cost to build all projects. Continue to be safe in all welding applications; OFW-OFC Oxy-Fuel Welding-Cutting, GMAW Gas Metal Arc Welding (mig), GTAW Gas Tungsten Arc Welding (tig), SMAW Shielded Metal Arc Welding (stick), Plasma Cutting. Successfully perform all machining techniques and process on an engine lathe, vertical mill, and drill press, surface grinder. Be able to calculate speed and feed for different materials and diameters. Select the proper tap and die threading tools. Organize and keep a neat folder with a project-planning portfolio.

6672 THE PLASTIC INDUSTRY – PPT115 – PennNOW COURSE

Grade(s): 10-12

Credit(s): 1.0

Weight: 1.10

Day(s): 6

College Credit(s): 2 (Penn College NOW)

Prerequisite: None

Note: Students who enroll in this course with the intent to receive college credit must pass the Penn College placement exam and purchase the book for this course. With successful completion, students will receive 2 credits for the PPT 115 The Plastic Industry course through Pennsylvania College of Technology.

Objectives: As a result of participation in this course, the student will become familiar with: (1) the definition of; plastics, polymers, polymerization, (2) understand basic chemistry of plastics the atom structure, elements, compounds, and molecules, (3) describe six types of plastics properties; mechanical, physical, thermal, optical, electrical, environmental, (4) understand the two types of plastics, thermoplastics and thermoset, (5) demonstrate general safety practices when working in a technical plastics lab, (6) plan, design and layout a plastics project, (7) safely use tools, materials, supplies and equipment in a technical plastic lab, (8) understand the operation and the set-up of all plastics product equipment; injection molding, blow molding, extrusion and thermoforming processes, (9) produce a plastic product using the injection molding, blow molding, extrusion and thermoforming processes, (10) demonstrate the use of precision measuring tools to complete testing requirements.

Description: This course provides an overview of both the plastics processing industry and the polymer production industry. Comparisons will be made to the polymer production, non-plastic manufacturing and other related industries like textiles. This course builds a basic knowledge of the chemical properties for polymers and plastics. This course will help students to learn the following plastic processes; injection molding, blow molding, extrusion and thermoforming with required hands-on projects in each process. The courses information will be given through; power point lectures, worksheets, demonstrations, guest speakers, field trips and student presentations.

Expectations: The enrolled students are expected to do the following in this course; (1) be on time, ready for the class, respect others and the class equipment, (2) able to keep a neat and organized 3 ring notebook, (3) successfully work as an individual, (4) present information to the class using multi-media methods, (5) complete all homework assignments, quizzes and tests, (6) build all required projects to the students ability.(7) individually plan, design and layout a plastics project, (8) work cooperatively and collaboratively as a member in a small group, (9) follow all safety rules when using the labs equipment.

6690 WOOD I

Grade(s): 9-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: The objectives are to provide students with life skills involving tools, materials, and processes. Wood II-IV works on honing and improving skills learned in Wood I.

Description: All the tools and machines in the shop will be demonstrated and the students will demonstrate competency on each machine. Using three required projects, students will gain experience on all the machines in the shop. Safety is stressed at all times. Advanced wood students will work on improving the skills they learned in Wood I, however, they will design and estimate all materials and costs for their projects. They will gain more advanced knowledge of materials, fasteners, hardware, adhesives and glues, and processes.

Expectations: Students will use the experience and skills gained building the three projects to advance to Wood II. Knowledge of machines, tools, materials, and processes are valuable skills that can be used by any homeowner or could lead to a vocation in woodworking or construction.

6710 ADVANCED WOOD**Grade(s): 10-12****Credit(s): 1.0****Weight: 1.0****Day(s): 6****Prerequisite:** WOOD I

Objectives: Advanced Wood works on honing and improving skills learned in Wood I.

Description: Advanced wood students will work on improving the skills they learned in Wood I, however, they will design and estimate all materials and costs for their projects. They will gain more advanced knowledge of materials, fasteners, hardware, adhesives and glues, and processes.

Expectations: Knowledge of machines, tools, materials, and processes are valuable skills that can be used by any homeowner or could lead to a vocation in woodworking or construction.

6760 ENGINEERING DRAFTING & DESIGN I**Grade(s): 9-12****Credit(s): 1.0****Weight: 1.0****Day(s): 6****Prerequisite:** None

Objectives: At the completion of this course the students will be able to: (1) identify basic mechanical drafting instruments, (2) identify various types of lines and how they are used, (3) be able to measure in both imperial and metric, (4) draw lines, arcs, and circles of specific size using drawing instruments, (5) identify and use a mechanical engineering scale, (6) sketch parallel, perpendicular, and evenly spaced lines, (7) draw multi-views in both free hand sketching and with instruments (8) identify and draw a regular triangle, square, hexagon, and octagon, (9) draw lines and arcs tangent to each other, (10) sketch objects on isometric grid paper, (11) work cooperatively in a small group to solve technical problem, (12) maintain a portfolio of all class work, (13) introduction to basic dimensioning, (14) introduction to computer aided drafting design –CADD, (15) introduction 3D software – Inventor Professional, (16)build electronic circuits in AutoCAD, (17)assemble an electronic kit using tools and soldering iron.

Description: This course will provide students with an introduction and related information on topics in engineering, drafting and design fields. Students will learn to use all mechanical drafting instruments and techniques while working in their own area with storage. There will be different technical drawing topics to be completed; sketching, geometric construction, multi-view, dimensioning and electronic diagrams. There will be small group competitions to solve structural and technical problems with follow-up analysis and testing for the best design. Students will complete drawings using AutoCAD software. Students will also complete drawings using 3D software – Inventor Professional. Students will assemble an electronic kit using tools and soldering iron. Students will be asked to keep their area clean and neat. Students will construct a class portfolio.

Expectations: That all students will learn how to use drafting instruments to mechanically draw, design and problem solve. That all students will be on time and have a willingness to complete all assignments. Student will work on technical drawings and sketches assigned for each topic in engineering, drafting and design. Students will need to work cooperatively with others in a small group to work on technical problems that need to be solved. Students will need to maintain a portfolio of all their work. Students will stay well behaved during the full class time.

6790 ADVANCED ENGINEERING DRAFTING & DESIGN**Grade(s): 10-12****Credit(s): 1.0****Weight: 1.0****Day(s): 6****Prerequisite:** Engineering Drafting & Design

Objectives: At the completion of this course the students will be able to: (1) identify parts and functions of a CAD workstation, (2) operate AutoCAD successfully to complete assignments, (3) be able to draw in both imperial and metric measuring, (3) mechanically measure numerous parts using precision measuring tools (Dial & Digital Vernier calipers, Outside Micrometers) and use the information to generate a drawing,(4) identify the different mechanical scales that are used for communicating, (5) identify the different projections; multi-view, sectional, axonometric and

oblique, (6) operate Professional Inventor 3D successfully to complete assignments, (7) dimension all drawings following ANSI standards for dimensioning, (8) identify the different sectional views full and half, (9) identify electronic components on a schematic drawing, (10) safely use a soldering iron to solder electronic components to a printed circuit board (PCB), (11) describe the nominal size, tolerance, limits, (12) identify a clearance fit, interference fit, and transition fit, (13) define the characteristics of the following gears; spur, worm, and bevel, (14) work cooperatively with other members of a small group to solve problems, (15) maintain a portfolio of class work.

Description: This course will provide students with an advanced intermediate level of information and related topics in engineering, drafting and design fields. Students will learn to use two Autodesk software programs to complete their assignments; AutoCAD 2015 and Professional Inventor 3D. Students will understand the components and functions of a CAD workstation. Demonstrations will be on all software functions and commands. There will be different mechanical drawing topics to be completed; geometric construction, multi-view, sectional view, axonometric and oblique projections, working drawing, threads, fasteners and springs, gear, cams. Students will dimension tolerances on shafts and holes. There is a section on electronic drawings and assembling an electronic kit using soldering iron, tools and techniques. This section will talk about electrical and electronic parts and their functions. Students will start dimensioning all objects by learning dimensioning techniques for different software. There will be a discussion on the 10-step engineering design process to aid in solving various design problems. There will be a couple small group competitions to solve problems and test for the best design; structural and technology.

Expectations: That all students will learn how to use Autodesk software; AutoCAD and Professional Inventor 3D to aid in their drawings, designs, and problem solving. That all students will be on time and have a willingness to complete all assignments; that all students will patiently assemble and successfully complete an electronic kit. All students will safely demonstrate the proper use of a soldering iron. All students will be able to follow the plotter procedure to successfully load and plot all drawings. Design products using the 10-step engineering procedure. Complete all drawings in all areas of mechanical drawings and maintain a portfolio of all their work.

6900 ARCHITECTURE – CONSTRUCTION DESIGN TECHNOLOGY

Grade(s): 9-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: None

Objectives: At the completion of this course the students will be able to; (1) understand architectural history and identify different styles, (2) know the elements and the principle of design when solving design problems, (3) use architect's scale, measurements and drafting instruments to produce a set of plans for a residential home, (4) draw 5 types of architectural drawings used for this class; floor plans, elevations, sections, detail and plot, (5) create at least one render view of a residential home, (6) introduce AutoCAD functions, commands and operations in completing drawings, (7) understand the importance in basic residential home area design; indoor living, outdoor living, traffic & patterns, kitchens, bathrooms, sleeping, utilities, garage, landscaping, (8) know the principles of construction; structural, modular, (9) know the types of foundations, wood-frame systems, exterior & interior walls, types of roofs, basic electrical wiring, (10) how to calculate various building cost, (11) operate safely basic hand tools and power equipment related to the construction field.

Description: This course will provide students with an introduction to architecture and construction design methods. This course will use multi-media methods to help make information clear to the students. All of the drafting instruments and board techniques will be demonstrated and explain until students understand what is expected of them. This course will introduce computer aided drafting and design (CADD) operations and functions to help students learn the importance of having computer skills to solve design problems. This course uses Autodesk software with annual updates of the version-AutoCAD 2014. The architectural assignment in this course will be residential home plans. The classroom has basic construction modules for student learning; frame door and window, electrical, plumbing, masonry. Field trips will be planned to visit local construction companies, architectural firms and retail centers relating to class topics.

Expectations: That all students in this course will be on time, ready to learn and will respect each other and their ideas in how to solve a design problem. All students will have a willingness to learn new skills like, mechanical drawing, computer methods and basic construction techniques. All students will keep a neat and organized 3 ring notebook of assignments, information and sketches. Students will need to have a separate sketch book portfolio that

they will work on through-out the year. Students will need to complete a written and oral report on an architect of interest.

6930 ADVANCED ARCHITECTURE – CONSTRUCTION DESIGN TECHNOLOGY

Grade(s): 10-12

Credit(s): 1.0

Weight: 1.0

Day(s): 6

Prerequisite: Architecture - Construction Design Technology

Objectives: At the completion of this course the students will be able to; (1) write a report on any historical architectural structure, (2) review the elements and the principle of design when solving design problems, (3) will have designed a student own residential house plans with one requirement know more than 3000sq-ft, (4) will do all drawings on Autodesk software using AutoCAD 2014 version, (5) complete a full set of architectural working drawings, (6) design and draw; multi-level floor plans, basement, foundation, all elevations, full and detail section views, plot plans, landscape plans with proper dimensioning and symbols, (7) create a perspective drawing of the residential home, (8) introduce architectural model building to scale and build the home that was designed this year, (9) know the types of construction; fireplaces, concrete, steel and reinforced-concrete, post and beam, framing systems; floor, wall, roof, electrical drawings, plumbing drawings, (10) how to understand building codes and legal documents, (11) review operate safely basic power hand tools and power equipment related to the construction field, (12) introduction to Autodesk software Revit 3D Architecture, (13) design your own commercial property based on your own company.

Description: This course will provide students with an intermediate level to architecture and construction design methods. This course will use multi-media methods to help make information clear to the students. All of the AutoCAD, commands, applications and techniques will be demonstrated on a large screen for explanation until students get comfortable operating the software. The architectural assignment in this course will be student designed residential house plans and a scaled model with landscaping. The construction assignment will be using scaled wooden lumber in constructing a framed yard shed with windows, doors and a roof. The students will mix concrete and pour into a form with steel rebar this will be done in the classroom. Students learn basic electrical skills by wiring up; a receptacle outlet, wall switches and a light. Field trips will be planned to visit local construction companies, architectural firms, a concrete plant and retail centers relating to class topics. This course will introduce Autodesk software Revit 3D Architecture its operations, functions and techniques to help students learn the importance of having 3D software skills to solve design problems.

Expectations: That all students in this course will be on time, ready to learn and will respect each other and their ideas in how to solve a design problem. All students will have a willingness to learn new skills in software like; AutoCAD 2014, Revit 3D Architecture and basic construction techniques like; concrete and masonry, electrical wiring and plumbing. All students will keep a neat and organized 3 ring notebook of assignments, information, drawings, sketches and models. Students will need to have a separate sketch book portfolio that they will work on through-out the year. Continuing to calculate basic construction cost.

Lycoming Career and Technology Center



The following programs are available to Montoursville Area High School students at Lycoming Career and Technical Center. Students attend Montoursville Area on a half-day basis for academic classes, health, and physical education; the other half of the day is spent in the program at LYCOCTC.

You do not have to choose between technical training and academics. LYCOCTC can help you achieve the best of both the academic and technical training worlds. Most students' schedule will permit you to take college prep courses at your home school and receive advanced technical training from the LYCOCTC. This combination of academics and technical training increases your employability or prepares you for post-secondary training and even college. LYCOCTC delivers quality career and technical programs through business and education partnerships to ensure successful transition to the workforce and/or continuing education.

AUTOMOTIVE TECHNOLOGY – (2.0 hours/day)

If you are interested in cars and want to repair high tech vehicles, take a closer look at the Auto Tech program. This program, designed for students who would like to work in the automotive service industry, is certified by Automotive Service Excellence (ASE.) The LycoCTC Automotive Technology Program follows the National Automotive Technicians Education Foundation (NATEF) guidelines.

When you enroll in the program, you will learn about performance, computer electronics, engine and chassis diagnoses and repair. Through this program students may acquire a Pennsylvania Automotive State Inspection License, prepare for the Automotive Service Excellence (ASE) Certification, and complete SNAP-ON DVOM Training.

COMPUTER SYSTEMS TECHNOLOGY – (2.0 hours/day)

The field of Information Technology (IT) is broad and ever-changing. Students will be presented with a foundation of computer science concepts including electricity and electronics, computer hardware and operating systems, software applications and programming, networking and telecommunications and much more. Students will also be prepared and provided vouchers to take the CompTIA A+ (Core 1 & 2) and /or Network+ Certification Exam(s) if they so choose.

CONSTRUCTION TECHNOLOGY – (2.0 hours/day)

This program provides students the opportunity to learn skills in the construction field such as: carpentry, masonry, electricity, plumbing, heating, and air conditioning. Students learn safety practices as they relate to using hand tools, power tools and performing tasks in the construction industry. All students learn to use hand tools, power tools and the safety practices related to their use. Students may earn the National Center for Construction Education and Research (NCCER) Certification.

CRIMINAL JUSTICE – (2.0 hours/day)

The Criminal Justice program is available to high school students who are interested in law enforcement or the military. Through a combination of academic-based instruction and "hands-on" experience, students will acquire the basic skills needed to succeed in a related career field. Some of the areas studied include the criminal justice system, use of force, communication and report writing, patrol functions, crimes code and vehicle code, crime scene investigation, and physical education.

The Criminal Justice program helps to prepare you for a career in private security, law enforcement, corrections, military, or to continue your post-high school education.

CULINARY ARTS – (2.0 hours/day)

Did you ever wonder what it would be like being a chef working in a 5-star restaurant? What about being an executive chef working for a Food Service Corporation? Our program prepares you for higher education and gets you ready to attain your goals you have set for yourself. Our instructor will give you a jump-start on your career goals and help you receive your ServSafe certification.

EARLY CHILDHOOD EDUCATION – (2.0 hours/day)

This program prepares students for employment in early childhood education and childcare services and provides the foundations for study in higher education that lead to early childhood educators and child related careers. The course of study includes but is not limited to: planning and guiding developmentally appropriate activities for young children; developmentally appropriate practices of guidance and discipline; application of basic health and safety principles when working with young children; overview of management and operation of licensed child care facilities and employability skills.

This course emphasizes learning experiences, which will help students gain knowledge and understanding of the intellectual, physical, social, and emotional development of children from conception to adolescence. The students will have opportunities to apply their understanding about children through participation, observation of children individually and in groups, and planning and evaluating group activities, which meet their needs. It includes instruction in child development and behavior, as well as observations and participation in an actual on-site preschool.

This course provides a solid base for students planning to enter the fields of Occupational Child Care, Para-educator, or Elementary Education. This program is located at the Ashkar Elementary School in Hughesville.

HEALTH CAREERS – (2.0 hours/day)

As the world of medicine and science changes and grows virtually every day, the number of jobs in the health field grows as well. Join the Health Careers program and learn about the exciting world of health care in a productive hands-on learning environment to gain a head-start in the health field. Learn about human anatomy, medical abbreviations and terminology, the skills required for lab and technical employment, and the behind-the-scenes work such as insurance billing and record keeping.

The Health Careers Program offers students the opportunity to prepare for a variety of health occupations. Students learn basic health assistant skills in the theory and skills lab within the classroom. Whether you are college bound or seeking employment immediately upon high school graduation, this program will prepare you for a future in the health field. Completion of the Health Careers program is not just educational; the program leads students to rewarding careers in one of today's fastest growing job markets.

SPECIAL PROGRAMS

DIVERSIFIED OCCUPATIONS (720 hours/year)

This senior only, one year program, resembles a traditional apprenticeship as students gain on the job experience in a career field not offered as a program at LycoCTC.

WORK BASE OPTION

This third year/senior student opportunity allows students to get on the job training in their field at a co-op or internship placement.

COLLEGE CREDIT OPTIONS

This upper level opportunity is based out of the **Pennsylvania College of Technology (Penn College)** for students interested in earning college credits while in high school. Students can earn these credits by attending Penn College courses or by doing coursework at LycoCTC through the Penn College NOW Program. An agreement between Penn College and LycoCTC makes these courses available.

PENN COLLEGE NOW COURSE DESCRIPTIONS

Students who are in their third year of select LycoCTC programs have the opportunity to participate in college courses taught at LycoCTC. To participate students must be recommended by their instructor and pass all Pennsylvania College of Technology entrance requirements. **Not all courses are offered every year.**

Construction Technology Offers the following PCNow Options:

Construction Hand and Power Tools BCT103

Survey of hand and power tools typically used to perform construction work. Emphasis on the development of skills needed to effectively perform layout, measurement, cutting, fastening, and finishing operations. Study also includes maintenance of tools and equipment, safe use of hand and power tools, and emerging tool technology. 1 Credit (0 Lecture - 3 Lab)

Framing Principles BCT109

Theory and application of framing techniques in residential and light commercial construction. Emphasis on basic principles and skills used in hand and machine woodworking operations. 4 Credits (2 Lecture - 6 Lab) *Corequisite(s): BCT 102 and BCT103.*

Drafting & Design Offers the following PCNow Options:

AutoCAD Comprehensive 2D Applications CAD120

Comprehensive application of 2D and 3D techniques using AutoCAD® software. Topics include the generation, editing, and analysis of geometry in alignment with industry standards with an emphasis on productivity. 3 Credits (2 Lecture - 3 Lab) *Corequisite(s): CCD103 and CCD104. Fall Only.*

3D Parametric Modeling Using Autodesk Inventor CAD122

Study and application of solid and surface modeling using Autodesk Inventor® parametric modeling software. Topics include the generation and editing of mechanical parts and assemblies, analysis of mass properties, rendering and animation, and the development of physical models using rapid prototyping (additive manufacturing) equipment. Also included are basic 3D-to-2D documentation techniques. 3 Credits (2 Lecture - 3 Lab)

Technical Drawing I CCD103

Basic principles and skills of drafting as a graphic language using the parametric modeling approach. Topics include technical sketching, SolidWorks® CAD operations and procedures, shape description, geometric construction, multiview projection, sectional views, auxiliary views, revolutions, threads and fasteners, and application of dimensions and tolerancing. Other topics include detail views, part drawings, assembly drawings, manufacturing processes, surface finishing, descriptive geometry, and the use of vendor part catalogs. ANSI/ASME drawing standards and practices are emphasized. 4 Credits (3 Lecture - 3 Lab) *Corequisite(s): CCD104. Fall Only.*

Detailing I CCD104

Technical drawing procedures using SolidWorks® CAD operations in compliance with the ANSI standards to develop finished drawings. Drawing assignments involve technical sketching, shape description, geometric construction, multiview projection, sectional views, auxiliary views, revolutions, threads and fasteners, application of dimensions and tolerancing, detail views, part drawings, and assembly drawings. Other topic will include manufacturing processes, surface finishing, descriptive geometry, and acquiring and using vendor part catalogs. ANSI/ASME drawing standards and practices are emphasized. 3 Credits (0 Lecture - 9 Lab) *Corequisite(s): CCD103. Fall Only.*

Computers Service Technology Offers the following PCNow Options:

Introduction to Networking CIT171

Introduction to networking structure, terminology, current and emerging technologies, and the World Wide Web as an integrating framework. Topics covered include TCP/IP, Security Concepts, Wireless Networks, and Network Virtualization. Emphasis on applications of networking to the Web and Programming. (Formerly CIT 170) 3 Credits (3 Lecture - 0 Lab) *Prerequisite(s): MTH006 or Placement by Examination.*