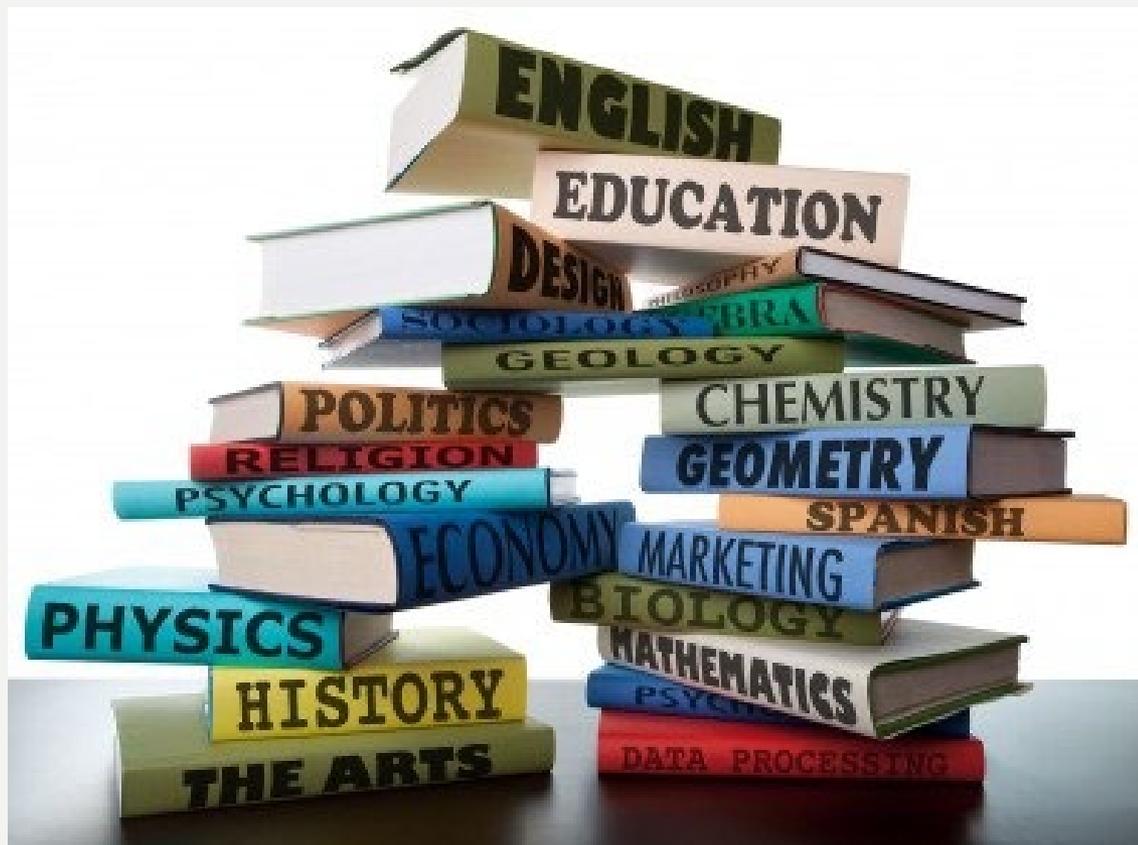


TENTH GRADE REGISTRATION



2026-27 PROGRAM OF STUDIES

- The 2026-27 MCSD Program of Studies can be found on the district website (www.mcsdk12.org).
- Hard copies will not be provided to students.
- Use this as a guide when choosing courses.



GRADUATION REQUIREMENTS

▪ English.....	4.0 Credits
▪ Social Studies.....	3.0 Credits
▪ Science.....	2.0 Credits
▪ Biology.....	1.0 Credit
▪ Mathematics.....	4.0 Credits
▪ Computer.....	0.5 Credit
▪ Health.....	0.5 Credits
▪ Personal Financial Management	0.5 Credit
▪ Physical Education.....	1.0 Credits
▪ Electives.....	<u>5.0 Credits</u>

Total

21.5 Credits

ADVANCED PLACEMENT (AP) AND HONORS COURSES

- Students will need to get teacher approval to take advanced courses. If you override this recommendation with a parent signature, your GPA may be affected if you do not perform well in the advanced courses.
- Honors courses are weighted by 1.04
- Advanced Placement courses are weighted by 1.08.

HONOR GRADUATES

- Students must have a cumulative NGA of 93.000% or higher (without rounding the decimal numbers) to be considered an Honor Graduate.
- Honor Graduates will be determined at the end of the third marking period of your senior year .

NCAA CLEARINGHOUSE

- Students interested in playing sports at the collegiate level (Div. I or II) will need to qualify with the NCAA Clearinghouse.
- Students must qualify academically in three areas: core courses, test scores, and GPA.
- For additional information, check www.eligibilitycenter.org or see your counselor.



WHAT IS A CREDIT?

- A CREDIT IS THE POINT VALUE OF A COURSE
- A SUBJECT THAT MEETS EVERY DAY FOR THE ENTIRE SCHOOL YEAR IS WORTH 1 CREDIT
- A SUBJECT THAT MEETS EVERY DAY FOR HALF OF THE SCHOOL YEAR OR MEETS EVERY OTHER DAY FOR THE WHOLE YEAR IS WORTH 0.5 CREDIT

WHAT DO I NEED TO GO TO THE HIGH SCHOOL?

- A student needs **2.5** credits to become a sophomore and attend the high school.
- A student needs **9.0** credits to become a junior.

HOW MANY CREDITS DO I NEED TO SCHEDULE?

- You need to schedule between 6.0 and 7.0 credits.
- If you schedule 6.5 credits, you will have a study hall every day for half of the year.
- If you schedule 6.0 credits, you will have a study hall every day.

LET'S LOOK AT COURSE CHOICES!



REQUIRED COURSES

- Required courses are courses that are required for graduation
- Everyone will take English, World Cultures, Math, Science, Health, Computer and PE

REQUIRED COURSES FOR THE ACADEMY

- In order to attend the Academy you should have passed English, Math, Science, Social Studies, Health, Computer and Physical Education.
- Note: Students may a make up minor subjects during their senior year. Students who failed a major subject may attend summer school, take an online class at their expense.

REQUIRED COURSES

Required Courses	Credits	Teacher Recommendations
English 10	0.5	015H, 0125, 0135, English 10 Honors, English 10 II, English 10 III
English 10 Literature	0.5	<i>Students must select one of the following:</i> Gothic, Survival Stories, Young Adult Literature
Math	1.0	Advanced Algebra II (H), Algebra II, Honors Geometry, Geometry, Algebra I, Applied Math
Science	1.0 0.5	Biology I, Chemistry I, Honors Chemistry I Forensic Science, Microbiology, Survival Science, Wildlife & Fisheries, Ecology of Mifflin County, Global Environmental Science
Physical Education	0.5	
World Cultures	1.0	World Cultures Honors, World Cultures

ELECTIVES

Course	Credits
Foundations of Art	0.5
Ceramics I & II	0.5 each
Drawing and Painting I & II	0.5 each
Culinary Arts I & II	0.5 each
Microsoft Office Apps	0.5
Entrepreneurship I and II	0.5 each
Accounting I	1.0
Business and Personal Law	0.5
Personal Financial Management	0.5 Graduation Requirement starting class of 2028
Programming I and II	0.5 each
AP Computer Science Principles	1.0
Web Page Design I and II	0.5 each

ELECTIVES CONTINUED...

Course	Credits
Intro to Print Media Production A & B	0.5 each
Advanced Print Media Production	1.0
Digital Electronics	0.5
Stage Draft	0.5
Introduction to Product Dev. A & B	0.5 each
2D Engineering Design	0.5
3D Engineering Design	0.5
Underwater Robotics	0.5
Robotics and Engineering	0.5
Architectural Design	0.5
Engineering & Innovations	0.5

ELECTIVES CONTINUED...

Course	Credits
Media I and II	0.5
Journalism I and II	0.5
Geography	0.5
Spanish I and II/World Languages	1.0
Academy of Science & Technology	3.0
Concert Band & Concert Choir	0.5 each

ENGLISH 10

0.5 CREDIT

- Enhance oral and written communication skills
 - Survey world literature including short story, novel, essay, play and poetry
 - Improve grammar & mechanics
 - Strengthen research skills
- *Teachers will recommend you for a level.

Let's eat grandma!



Let's eat, grandma!

**PUNCTUATION
SAVES LIVES!**

HONORS ENGLISH 10

0.5 CREDIT

- Extensive work in vocab, usage, writing and thinking skills and literary interpretation
- Survey world literature
- Individual and group reports, speeches and presentations and research projects are required

**Prerequisite C or above in Eng. 9H; or B or above in Eng. 9II and Teacher Recommendation*

Let's eat grandma!



Let's eat, grandma!

**PUNCTUATION
SAVES LIVES!**

ENGLISH 10 LITERATURE

0.5 CREDIT

STUDENTS WILL SELECT & TAKE ONE OF THE LIT CLASSES LISTED BELOW & WILL ALSO NEED TO SELECT A SECOND LIT CLASS OPTION AS AN ALTERNATE CHOICE

GOTHIC LITERATURE

SURVIVAL LITERATURE

YOUNG ADULT LITERATURE

ENGLISH 10 LITERATURE

- **Gothic Literature** In this semester English course, students will focus on various elements of Gothic literature. From bizarre situations in haunted houses to the steamy swamps of the South, this course will review the psychology and paranormal of Gothic Literature and make students question if they can trust what they think they know.
- **Survival Stories** In this course, students will grapple with questions such as “What does it take to survive?” What are we willing to risk? How do the hardships we face strengthen our character and define who we become? Survival Stories will include a mix of fiction and nonfiction readings with most texts written from the perspective of teenagers and young adults. Units are based on two focus areas: global & introspective. The global focus will include contemporary social conflicts such as refugee crisis, natural disasters, and modern warfare. The introspective focus will include current social issues experienced by some American teens today such as poverty, homelessness, trauma, and defining one’s identity. Through these topics, students will discuss, write, create, and reflect on the conflicts mankind must overcome and what may await us in the future.

ENGLISH 10 LITERATURE

- **Young Adult Literature** In this course, students will critically read and analyze texts that reflect the young adults experience. Students will focus on literary narratives written for young adult, describes the coming-of-age process, or that discuss what it means to be a teenager. We will embark on class discussions in which we analyze the social, cultural, and media influences on these texts, as well as discuss how the teenage experience has changed over time due to these influences. Students will read, write, watch, and create with the goal of further understanding what it means to come of age and be a young adults in today's society.

WORLD CULTURES

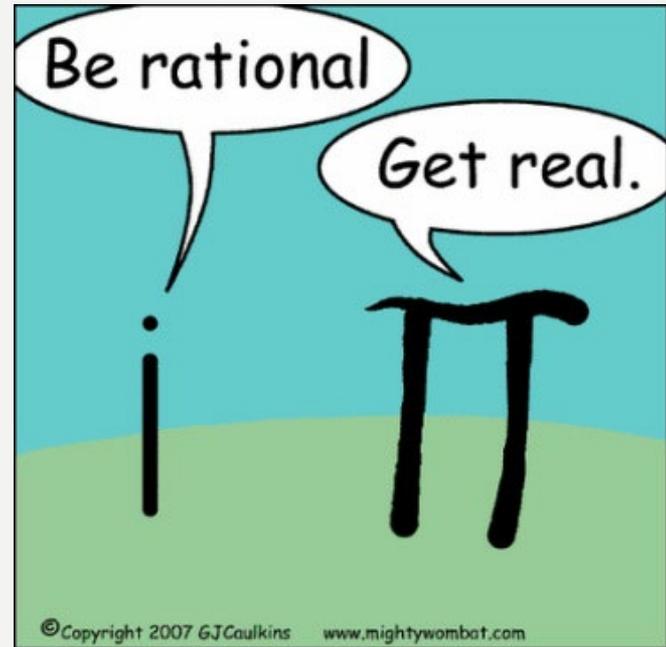
- Study of the cultural development of mankind
- Emphasis on diversity and universality which exists among cultural groups
- Follows progress of mankind from 1450 to the present
(Your teachers will recommend you for a level)



WORLD CULTURES HONORS

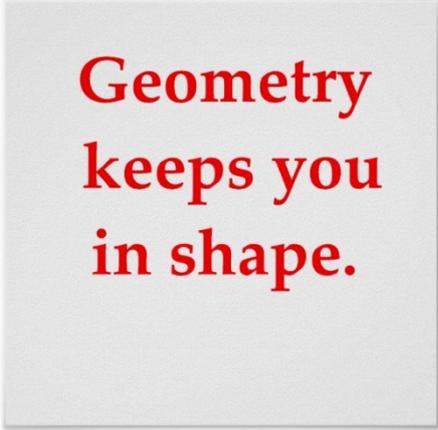
- World Cultures Honors is a weighted course designed as a study of the cultural development of humanity. The course will examine the diverse, and also the common aspects, of culture and history. Social, political and economic practices will be a feature of studies. The course will span the progress of humanity from 1450 to the present.
- Students will engage in critical-thinking exercises, activities focused on independent thought and written communication, as well as an examination of primary-source documents.
- *Prerequisites for Both Classes:*
- B or higher in previous social studies class
- B or higher in previous English class
- Teacher recommendation

MATHEMATICS



- From Advanced Algebra II (H)
Honors Geometry (H) 1.0 Credit
- From Geometry
Algebra II..... 1.0 Credit

MATHEMATICS



Geometry
keeps you
in shape.

funny math joke by jimbuf

Zazzle

- From Algebra I
Algebra II.....1.0 credit
- From Math 9
Applied Math or Algebra I.....1.0 credit

FROM CHEMISTRY HONORS

Physics I 1.0 Credit

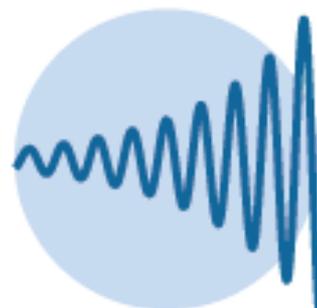
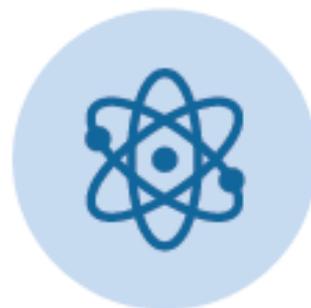
(Prerequisites: Algebra I; Algebra II/Adv Algebra II; Biology I/Honors Biology I;
Chemistry I/Chemistry I Honors; Geometry Honors [or concurrent])

AP Biology 1.0 Credit

Anatomy & Physiology Honors..... 1.0 Credit

AP Chemistry..... 1.0 Credit

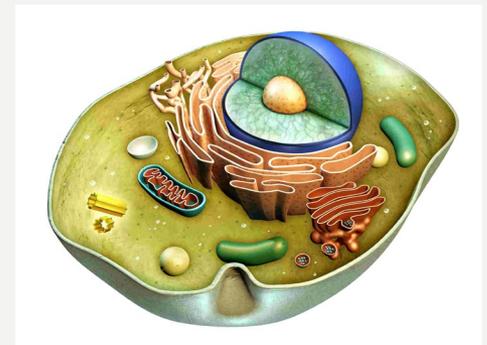
AP Environmental Science (New)..... 1.0 Credit



FROM BIOLOGY I

YOUR TEACHER WILL RECOMMEND FROM THE FOLLOWING CLASSES:

- Chemistry I or Chemistry Honors.....1.0 Credit
 - Ecology of Mifflin County.....0.5 Credit
 - Global Environmental Science.....0.5 Credit
 - Forensic Science.....0.5 Credit
 - Microbiology.....0.5 Credit
 - Survival Science.....0.5 Credit
 - Wildlife and Fisheries Science.....0.5 Credit
- Student will need 1.0 Credit total**



SCIENCE COURSES

- **Forensic Science-** (0.5 credit) is the application of science to the criminal and civil laws that are enforced by police agencies in a criminal justice system. This includes the investigation of fingerprinting, fiber analysis, ballistics, arson, trace evidence analysis, poisons, drugs, blood spatters, and blood samples. Students are taught the proper collection, preservation, and laboratory analysis on various samples, especially in the crime scene format.
- **Microbiology-** (0.5 credit) in this course, students will study the organisms not visible to the human eye and their effects on humans. The emphasis is on a hands-on approach to learning with labs and projects. Students will learn proper procedures for handling microbes, and develop a good understanding of how microbes affect our lives in the both + & - ways. This lab intensive course is designed for those students going into fields of microbiology, medical technology, nursing, medicine, any other science or health related career.

SCIENCE COURSES

- **Survival Science-** (0.5 credit) this course is designed for students wanting to learn wilderness survival skills and the scientific concepts behind human survival. Reason vary from the desire to develop a real connection to the natural world to wanting to be prepared for a natural or man-made disaster. This elective course will teach students how to survive in situations where life and safety depend on their decisions and will examine the science behind those decisions. This semester course will examine the following topics related to human survival: navigation, water, shelter, thermoregulation, cooking, psychology of survival, wilderness first aid, and poisonous & edible plants. The course will be outside often and will culminate in an outdoor trip.

SCIENCE COURSES

- **Wildlife and Fisheries Science-** (0.5 credit) includes the study of the conservation, management, ecology, behavior and identification of PA native wildlife and fish species; the habitats where they live; and application of that knowledge to conserve and manage biodiversity and ecosystems. This one semester course includes outdoor lab experience to enhance course work and will help students prepare who are interested in pursuing a career in wildlife & fisheries management or students who are interested in the conservation of the natural world.

PHYSICAL EDUCATION

- Maintaining Fitness.....0.5 credit



ELECTIVES

- Electives are courses that are not required for graduation; however, you will need to complete elective courses in order to graduate
- Choose courses that will help you along your career path
- Choose courses that are of personal interest to you
- You may choose between 2.0 and 2.5 credits if you are staying at MCHS or 3.0 credits if you are attending The Academy

ART



- FOUNDATIONS OF ART
 - DRAWING & PAINTING I & II
 - CERAMICS I & CERAMICS II
 - DIGITAL ILLUSTRATIONS I & II
 - WEARABLE ART
- 0.5 CREDIT EACH

FOUNDATIONS OF ART

Is a lively, inviting, comprehensive course written for beginning level artists. This course includes interactive activities & multicultural studio projects representing a wide variety of cultures, artistic styles and art media. This course is designed to enrich the lives of its participants through discovery & creative problem solving. It provides students with a broader perception of their environment & cultural perspectives. The course was designed around the following key concepts:

- Meaningful, hands-on learning experiences that allow for personal growth and creative expression
- Integration of aesthetics, art criticism, art history, & studio production
- Sequentially planned experiences that build on concepts & provide learning opportunities that incorporate a variety of media, artistic style & historical periods

FOUNDATIONS OF ART

Students will learn traditional and contemporary techniques in drawing, painting, clay, collage, and sculpture. In addition, students will self-examine completed works in an effort to foster a sense of accomplishment and commitment to high standards of art production.

This course is designed for the student who is a beginner in art or who wants to learn multiple media relating to the visual arts including drawing, paint, clay, sculpture, glass, etc.

(0.5 credit)

DRAWING & PAINTING I

This class is an introductory class in drawing & painting. The focus is to develop the confidence to draw, paint, & understand design according to their own tastes and preferences. Students will use a variety of media from graphite & charcoal, acrylic paint, and pastel to drawing on digital tablets. **This course is good for any student interested in art and design, illustration, cartooning, animation, fine art painting, industrial design as well as digital design in multiple fields.**

(0.5 credit)

CERAMICS I

In this introduction to ceramic materials and processes, students will design and create works using hand-building processes & throwing at the potter's wheel. Students will also complete the glazing process on a ceramic form. **This course is designed for those who are interested in ceramics and pottery, learning the wheel thrown 7 hand-built pottery process from start to finish.**

(0.5 credit)

DIGITAL ILLUSTRATIONS I

Digital Illustration introduces students to digital art and illustration using Procreate on the iPad, a professional tool used by contemporary illustrators and artists. Students learn to create original artwork for print, textile, and web-based media while applying traditional art principles in a digital environment. Basic principles of file naming and sharing correct types of files will be discussed. Most class time is spent working directly in Procreate through guided, in-class projects. Regular attendance is essential, as instruction & production occur primarily during class. Projects are designed to reinforce traditional art principles-such as line, shape, value, color and composition-within a digital environment. A list of possible projects may include: a greeting card, a poster, vinyl stickers and short GIF-style animations. Basic drawing skills would be very beneficial.

(0.5 credit)

WEARABLE ARTS

This is a unique art class that combines design, function and art. Students will have the opportunity to design and create wearable pieces of artwork. Principles of Design will be taught in addition to the importance of form and function. Students will be responsible for providing some materials to alter/modify as part of the course.

Projects may include: jewelry making, fashion design upcycling existing denim/jackets, shoes, etc. **This course is for those who are interested in designing, creating and producing artworks that be worn as fashion or accessories.**

(0.5 credit)

COMPUTER/BUSINESS ELECTIVES



- MICROSOFT APPLICATIONS.....0.5 CREDIT
- ACCOUNTING I.....1.0 CREDIT
- BUSINESS AND PERSONAL LAW.....0.5 CREDIT
- PERSONAL FINANCIAL MANAGEMENT.....0.5 CREDIT
- ENTREPRENEURSHIP I AND II.....0.5 CREDIT
- SPORTS AND ENTERTAINMENT MARKETING..0.5 CREDIT

MICROSOFT APPLICATIONS I

Microsoft Office will explore the software applications Word, Excel PowerPoint and Publisher. This class will prepare students for entry-level jobs and entry-level college courses.

(0.5 credit)

ACCOUNTING I

- Designed to teach the student how to prepare, read, and interpret simple business reports and financial statements. Student will learn how to keep a set of books for a sole proprietorship and a partnership using automated accounting procedures along with “hands on” accounting experiences.

(1.0 credit)

BUSINESS AND PERSONAL LAW

The major emphasis is contract law—the ground rules we use to define our private rights and duties. The course will include an introduction to criminal, civil and procedural law. The student will learn about problems in society, classifications of crimes, trial procedures, the law of negligence, marriage and divorce, rental agreements and other consumer and family issues related to the law.

(0.5 credit)

PERSONAL FINANCIAL MANAGEMENT

- Students learn how to prepare a wide range of financial records for personal use and become familiar with the procedures related to personal money management. Students learn how to maintain checking and savings accounts, how to prepare personal budgets and keep track of money received and spent, how to use credit wisely, and where to protect their personal ownership records. In addition, students will learn valuable consumer skills. Student learn the importance of using credit wisely, the expense of using credit, and effective management of credit.

(0.5 credit)

Graduation requirement for class of 2028 and beyond

ENTREPRENEURSHIP I AND II

Entrepreneurship I will increase the student's knowledge of creating, owning and operating a business. Students will develop a business plan and will learn about creating, researching, managing, marketing and advertising. Students will use basic accounting principles, general business information and computer skills to develop their business.

(0.5 credits)

Entrepreneurship II This is an advanced course in which students operate a fully functional business. Students will operate and manage the MCHS School Store, including selecting and purchasing merchandise, advertising and display, stocking shelves, taking inventory, and maintaining bookkeeping records. Individual assignments from textbooks and projects will be required as well.

(0.5 credits)

SPORTS AND ENTERTAINMENT MARKETING

Sports and Entertainment Marketing students will take a journey through the world of marketing and learn how marketing functions are applied to sports and entertainment. Students will participate in engaging, hands-on projects in the topics of product mix, target markets, promotion, advertising, sales, pricing, and social media marketing. Crucial topics like the channels of distribution, customer service, and economic principles make the direct connections to real-life businesses, famous athletes, and celebrities. Students work in teams to build an expansive marketing portfolio as they apply marketing functions to real world scenarios and strategies from award shows and nominations, to analyzing super bowl ads, and to planning successful product endorsements. (0.5 credit)

COMPUTER SCIENCE ELECTIVES



PROGRAMMING I&2.....0.5 CREDIT EACH
AP COMPUTER SCIENCE
PRINCIPLES.....1.0 CREDIT
WEB PAGE DEVELOPMENT I...0.5 CREDIT
WEB PAGE DEVELOPMENT II...0.5 CREDIT

PROGRAMMING I AND II

Programming I focuses on all aspects of a project life cycle for a typical programming assignment including: analysis, design, coding, and testing. The concept of variables and the use of logical thinking skills developed in Algebra provide a foundation for writing computer programs.

(0.5 credits)

Level I Prerequisite: Algebra I

Programming II involves more advanced concepts and is designed to prepare students for college level computer classes. It requires self-motivation and independent learning.

(0.5 credits)

Level II Prerequisite: Programming I

AP COMPUTER SCIENCE PRINCIPLES

- Prerequisite: *Teacher Recommendation and Programming I* 1.0 Credit

AP Computer Science Principles introduces students to the fundamentals of computer science and navigates the effects of computing and technology on our world. This course focuses on problem solving skills, how to work with data, cybersecurity, and programming. Students are able to explore topics of computing using their own ideas and creativity, use the power of computing to create pieces of personal value, and develop an interest and broader understanding of computer science that will encourage further exploration of various ventures in the field. **The course will be taught as a college level course and is designed to prepare students for the Advanced Placement examination which is required. Any cost related to the AP exam is the responsibility of the students.**

WEB PAGE DEVELOPMENT I AND II

This course is for students interested in learning about Web design, understanding principles for creating Web pages and making Websites. It introduces web design concepts and skills, software applications, evaluation techniques and related social and ethical issues. All projects follow the typical project life cycle of analysis, design, development and testing.

(.5 Credit)

ENGLISH ELECTIVES



JOURNALISM I AND II.....0.5 CREDIT
MEDIA I AND II.....0.5 CREDIT

JOURNALISM I AND II

This course will focus on the specific skill of writing journalistically. The purpose of this course is to prepare students to write for publications such as a newspaper or yearbook. Students will write articles which will be revised to publication quality.

(0.5 credit)

Prerequisite: C or better in English 9

MEDIA I AND II

- **Media I**--Students will examine how media messages are designed, created and targeted for their audiences. Students will operate cameras, conduct interviews, shoot and edit video, and operate the control board.

(0.5 Credit)

Prerequisite: C or better in English 9

Media II —Students will design, create and target their media messages for audiences. Students will conduct interviews and research topics as well as shoot and edit their own video.

(0.5 Credit)

Prerequisite: Media II

FAMILY & CONSUMER SCIENCE ELECTIVES



CULINARY ARTS I AND II...0.5
CREDIT

CULINARY ARTS I AND II

- **Culinary Arts I** is a basic food preparation course. This semester course emphasizes the skills necessary for basic meal planning and food selection. Students are expected to taste and evaluate the foods prepared in class.

(0.5 Credit)

- **Culinary Arts II** is an advanced course that focuses on selecting and planning meals, kitchen designs, and the study of foods and meal preparation in different cultures. This course is designed for students interested in a career in the food industry.

(0.5 Credit)

Prerequisite Culinary Arts I

LANGUAGE ELECTIVES



SPANISH I AND II.....1.0 CREDIT

**SPANISH IS THE ONLY LANGUAGE THAT IS OFFERED
FOR FOUR YEARS/LEVELS**

ONLINE BLENDED LEARNING INSTITUTE

You may select one of the following classes:

**ARABIC, FRENCH, GERMAN, RUSSIAN,
MANDARIN CHINESE, LATIN, AMERICAN
SIGN LANGUAGE, JAPANESE.....1.0
CREDIT**

SPANISH I, II AND III

Experience another culture through new sounds, new sights, and new tastes. Use basic Spanish to talk about yourself, your family and friends, your surroundings, and your activities. In addition to listening and speaking, you will begin to read and write in your new language. Commitment to daily homework and a command of grammar is essential to success.

(1.0 credit)

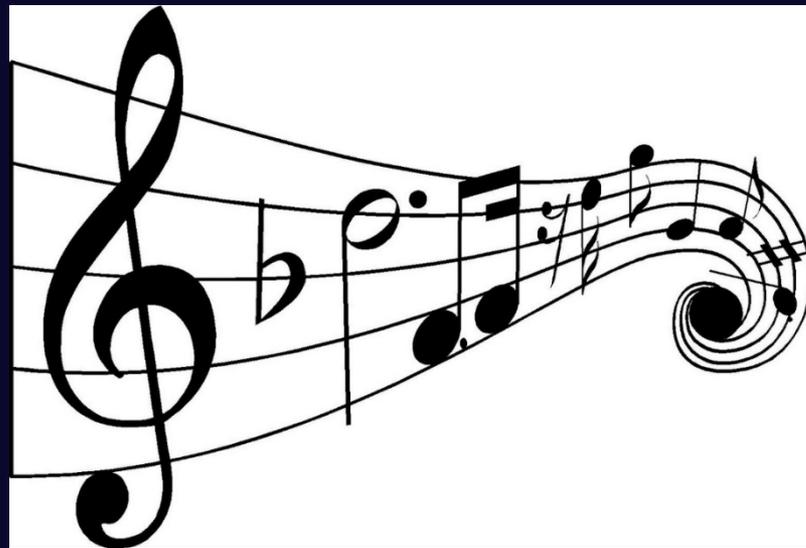
ONLINE BLENDED LEARNING INSTITUTE

- Arabic, French, German, Latin, Russian, Mandarin Chinese, American Sign Language, and Japanese are available through an online class. You will have class work to complete that your online teacher will assign. In addition, this class will also require that you work independently. The online classes are very challenging and students will need to be hard working and conscientious.

(1.0 Credit)

- *Prerequisite: 10th Grade Status and B or higher in current English*

MUSIC ELECTIVES



CONCERT BAND..... 0.5 CREDIT
CONCERT CHOIR..... .0.5 CREDIT

CONCERT BAND

All styles of concert band music are studied and publicly performed with emphasis on form and style, as it is related to classic and modern wind band literature. Members participate in group lessons, sectionals, and full ensemble rehearsal. Many special ensembles are available. *Prerequisite: 2-4 years of instrumental lessons.*

(0.5 credit)

CONCERT CHOIR

Choir is available to any student who expresses the desire and certain level of musical ability to create vocal music. Special emphasis is stressed upon each section to be able to sing independently of the other voices, and to insure proper balance throughout the entire choir. Special ensembles are also available.

(0.5 credits)

SOCIAL STUDIES ELECTIVE



ECONOMICS.....0.5 CREDIT
GEOGRAPHY.....0.5 CREDIT

ECONOMICS

The major purpose of this course is to provide a comprehensive study of the basic institutions, concepts, principles, and practice of economics. Instruction covers basic economic concepts that underlie the United States market systems and its operations. Instructional units apply these concepts at both the micro & macro levels: promote informed voter and consumer decision making; provide information about major economics theories & prominent economists; and emphasize how economics influences the lives of ordinary citizens. In addition the course investigates the complex political and economics issues confronting national, state, and local governments. The course also includes an analysis of the American free enterprise system through a study of comparative economics. Included is instruction on the international dimensions of economics and the “global” economy. Throughout this course, measurement concepts and methods involving tables, charts, graphs, ratios, percentages, and index numbers are introduced to understand the relationship between economic variables, thus adding to their mastery of economic thought and method. (0.5 credits)

GEOGRAPHY

This course will focus on spatial relations expressed as patterns and processes. It will include the study of physical, political, economic and cultural geography. Special emphasis will be placed on regional studies and human geography.

(0.5 credits)

SCIENCE CREDITS





STEM STUDIO

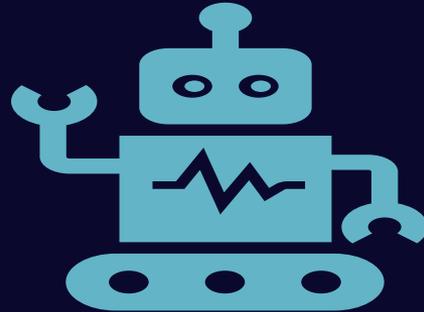
0.5-1.0

ELECTIVE CREDITS

*PREREQUISITE: BIOLOGY I AND ALGEBRA I OR
ALGEBRA IB*

STEM EDUCATION IS AN APPROACH TO LEARNING THAT AIMS TO TACKLE REAL WORLD PROBLEMS USING MULTIPLE DISCIPLINES INCLUDING, BUT NOT LIMITED TO, SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH. THE STEM STUDIO COURSE SEEKS TO PRODUCE MORE STUDENTS WHO ARE BOTH PASSIONATE AND PREPARED TO BECOME THE NEXT GENERATION OF ENTREPRENEURS AND BUSINESS LEADERS. A LESSON OR UNIT IN A STEM CLASS IS TYPICALLY BASED AROUND FINDING A SOLUTION TO A REAL-WORLD PROBLEM AND EMPHASIZES COLLABORATIVE, PROJECT-BASED LEARNING WITH THE GOAL OF MIMICKING THE WAY SOLUTIONS ARE FORMED IN THE BUSINESS WORLD

TECHNOLOGY EDUCATION ELECTIVES



INTRO TO PRINT MEDIA PRODUCTION A & B.....	0.5
ADVANCED PRINT MEDIA PRODUCTION.....	0.5
ARCHITECTURAL DESIGN.....	0.5
DIGITAL ELECTRONICS.....	0.5
STAGE CRAFT.....	0.5
INTRO TO PRODUCT DEVELOPMENT A & B.....	0.5
2D ENGINEERING DESIGN.....	0.5
3D ENGINEERING DESIGN.....	0.5
UNDERWATER ROBOTICS.....	0.5
ROBOTICS & ENGINEERING.....	0.5

INTRO TO PRINT MEDIA PRODUCTION A & B

0.5 CREDITS EACH

Intro to Print Media Production A- students will learn the basics of digital design & print media production tools to edit photos & images for the purposes of printing them in high quality. Students will learn the basic operations of laser engraving & cutting, vinyl cutters & printers, photo printing, screen printing, & other hands-on projects.

Potential Projects: photo editing, movie poster design, laser engraving, vinyl cut decal or printed decal, one color screen-print, custom operation, custom notepads, custom projects

Intro to Print Media Production B- 1st half of course students will learn the basics of digital design & print media production tools to edit photos & images for the purposes of printing them in high quality.

2nd half, students will be given challenges that will allow them to create custom work for real-world purposes.

Potential Projects: redesign a menu challenge, design a book cover challenge, TSA Photography Challenge

ADVANCED PRINTED MEDIA PRODUCTION

(PREREQUISITE INTRO TO PRINT MEDIA A)

1.0 CREDIT

Students will build upon their knowledge gained in the intro class to create professional-level quality projects. Students will build upon their knowledge of vinyl printers and cutters, multicolor screen printing, garment printing, laser cutting and engraving, large vinyl prints, and other professional-quality printing applications.

Potential Projects: 3D Laser Cutting, Heat Transfer Vinyl, Heat Transfer Prints, Photo Editing, Multicolor Screen Print, Multicolor Vinyl, DSLR Camera Operation, Video Editing

ARCHITECTURAL DESIGN

0.5 CREDIT

Architectural Design is an introductory-level class that primarily familiarizes students with the elements of residential home design. Students will learn drafting and design skills, explore architectural styles, design architectural plans and models, and will be trained to use the CADD (computer-aided drafting and design) software program in Autodesk Revit. This course is optimal for ALL students.

Potential Projects: Intro. To Residential Architectural Design, The Home Design Challenge, Dream Home Challenge, Apartment Design Challenge, Introduction to Laser Cutting, Introduction to 3D Print

DIGITAL ELECTRONICS

0.5 CREDIT

Throughout this course, students will learn the basics of building and programming electrical circuits. Students will gain an understanding of how electricity works, different types of electrical components, basic programming skills and more.

Potential Projects: Custom Arcade Machine, Low (5V) Circuits, Home (120 v) Circuits, Arduino Circuits, Raspberry Pi Circuits, Programmable Lights & Sounds, Programmable Holiday Light Display, Assist with Stage and Crafting Components

STAGE CRAFT

0.5 CREDIT

Working with the Theater/Drama team, students will learn various aspects of theatrical production, including, set constructions, prop making, and use of computer and media-based applications. This course prepares students to engage in the hands-on application of production elements in and technology.

Potential Projects:

- *Construct sets for the play*
- *Basic electrical wiring*
- *Prop making*

INTRODUCTION TO PRODUCT DEVELOPMENT A & B 0.5 CREDIT EACH

Intro. to Product Dev. A- will introduce students to different techniques and processes when following plans to create a product. This course will include an introduction to machines, budgeting, reading simple technical drawings, and exploring a variety of materials.

Potential Projects- Jewelry box, Cutting boards, Lamps

Intro. to Product Dev. B- will introduce students to different techniques & processes when following plans to create a product. This course will include an introduction to machines, budgeting, reading simple technical drawings, & exploring a variety of materials. The latter half of the course will include more independent projects with a personal choice of materials.

Potential Projects- Custom Designed Projects, Tensegrity Table, Cutting boards, Lamps, Bandsaw Boxes

2D ENGINEERING DESIGN

0.5 CREDIT

An introductory level course that primarily familiarizes students with 2-dimensional design, fabrication, problem-solving, and a laser engraving/cutting techniques. Students will learn drafting & design skills and will be trained to use CADD (computer aided drafting & design) software programs such as Autodesk AutoCAD and Adobe Illustrator. This course is optimal for ALL students.

Potential Projects: Laser Engraved Pumpkins, Laser Engraved Glasses, Custom LED Lights, Mechanical Drafting Activities, Cupcake Wars, Constructible Designs, Cardboard Box Design Challenge, Comic Strip Design Challenge

3D ENGINEERING DESIGN

0.5 CREDIT

An introductory level course that primarily familiarizes students with 3D design, modeling, fabrication, problem-solving, and 3D printing processes. Students will learn drafting & design skills and will be trained to use CADD (computer-aided drafting & design) software programs such as Autodesk Inventor, Autodesk AutoCAD, and Adobe Illustrator. This course is optimal for ALL students.

Potential Projects: 3D Printed Logos, 3D Printed Cookie Cutters, Cupcake Wars, 3D Modeling & Design Activities, Practical Applications Design, Transportation Design, MagicaVoxel Design Challenge

ENGINEERING & INNOVATIONS

0.5 CREDIT

- Prerequisite 2 Engineering Design or 3D Engineering Design

This course is offered an extension of Engineering Design for students interested in utilizing manufacturing equipment such as the laser engraver/cutter & 3D printer to create innovative designs. Students will have the opportunity to design, build, and manufacture products that demonstrate an understanding of drafting concepts in a hands-on and practical way. Students will enhance their drafting and design skills and will be trained to use new and advanced functions of CADD software and programs such as Autodesk Inventor, AutodeskCAD, Autodesk Revit, and Adobe Illustrator.

Potential Projects: Mini-Game Design Challenge, Train Car Design Challenge, Tiny Home Design Challenge, Custom Cookie Cutters, Arcade/Carnival Games, Cupcake Wars, 3D Design & Innovation, Community Projects

UNDERWATER ROBOTICS

0.5 CREDIT

An introductory level, project-based course. In this course, students learn about remotely operated vehicles through guided exploration. Students work in teams to design, build, modify and test, & problem-solve their underwater robotics builds. At the conclusion of the project, teams test their final design at an underwater robotics event held at the Juniata Valley YMCA. This course is optimal for ALL students.

Potential Projects: Intro. To Remotely Operated Vehicles, Underwaters Robotics Design & Creation, Underwater Robotics Competition, Intro to 3D Printing, Engineering Design Process, Intro. to Laser Cutting, Intro. To Soldering, The Dynamic Process of Technology

ROBOTICS & ENGINEERING

0.5 CREDIT

Is an introductory level, project based course. As a team, students will learn how to build and program robots to follow remote and autonomous instructions. Students will explore several types of robotics systems and programming platforms and will develop team-work and problem-solving skills. This course uses Tetrax Robotics build kits and Tetrax Prizm robotics controllers.

Potential Projects: Introduction to Tetrax Robotics Kits, Tetrax Robotics Kit Builds, Programming Activities, Tetrax Robotics Competition, Drones

THE ACADEMY

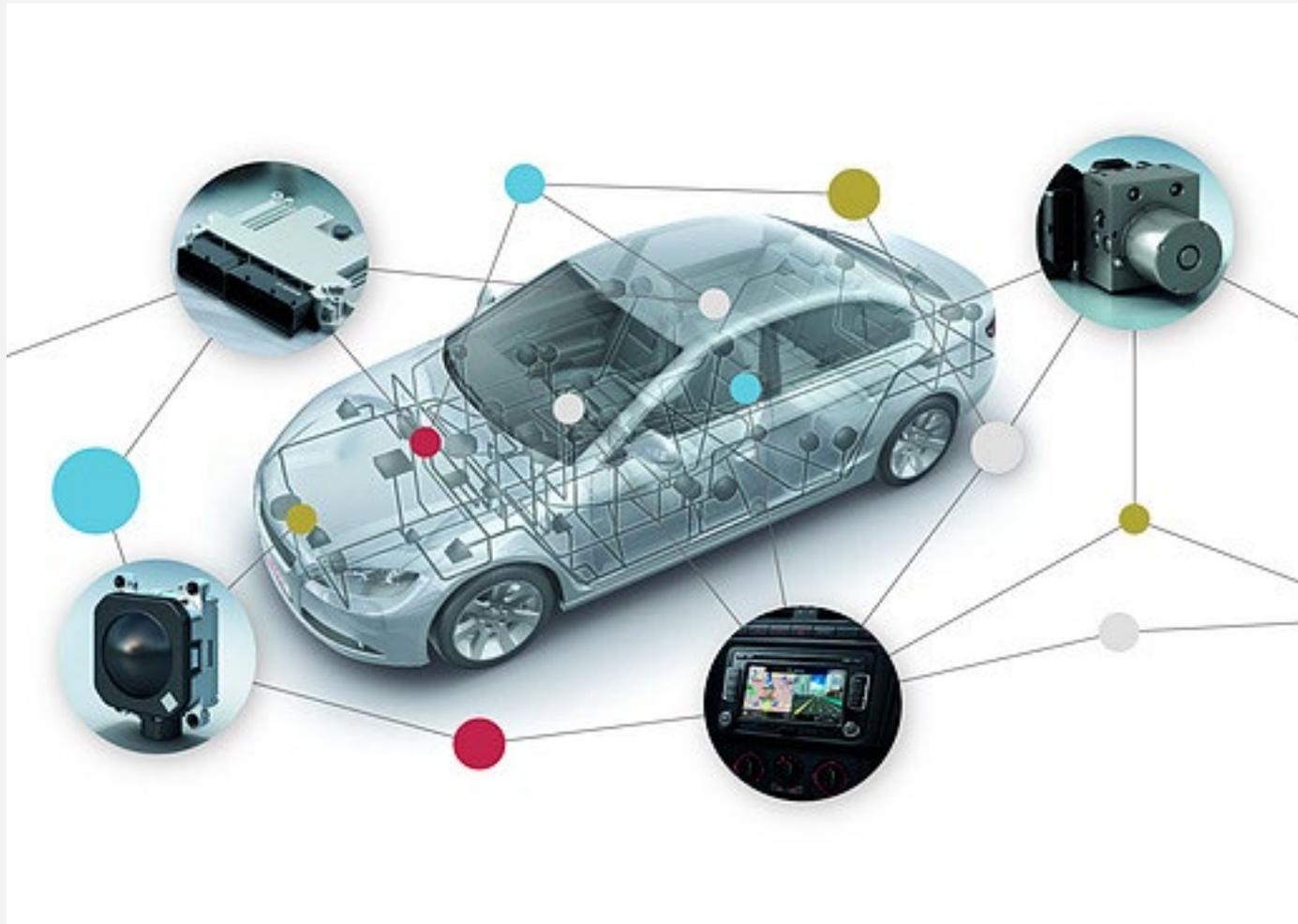


THE FOLLOWING ELECTIVES ARE
AVAILABLE AT THE ACADEMY OF
SCIENCE AND TECHNOLOGY

COLLISION REPAIR



AUTOMOTIVE MECHANICS



MEDICAL SCIENCE



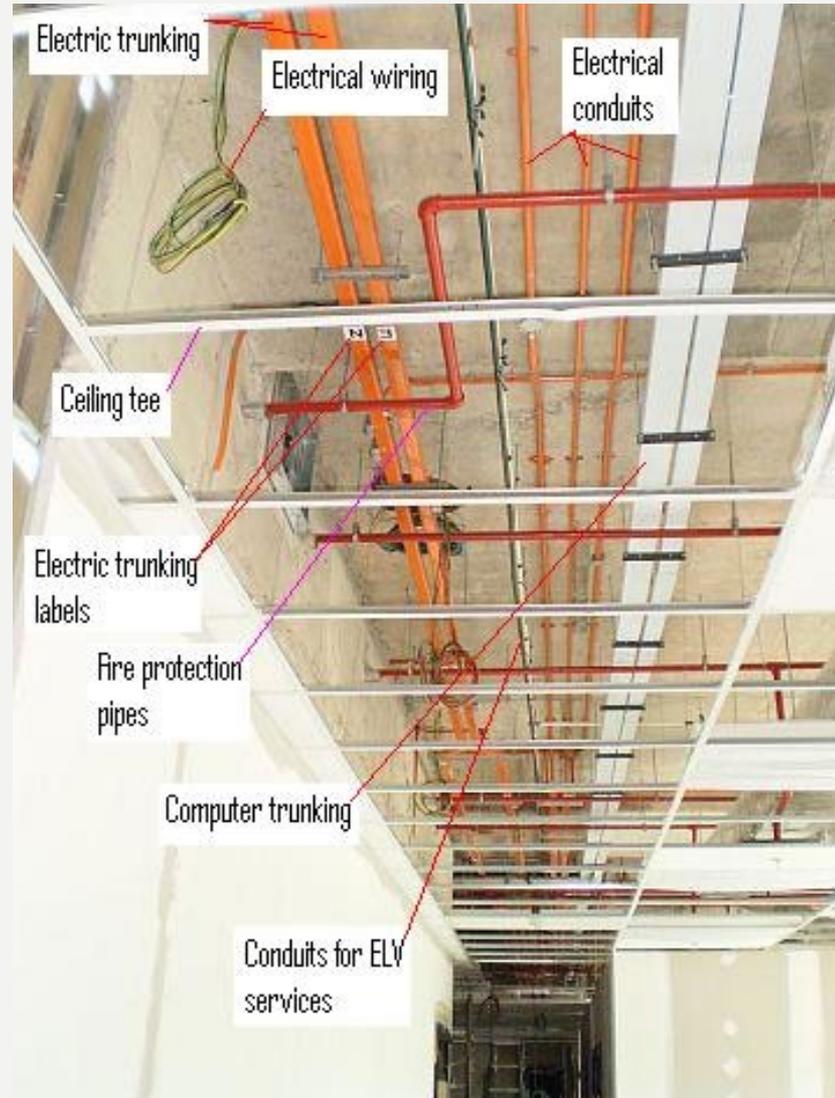
EARLY CHILDHOOD EDUCATION



CULINARY ARTS



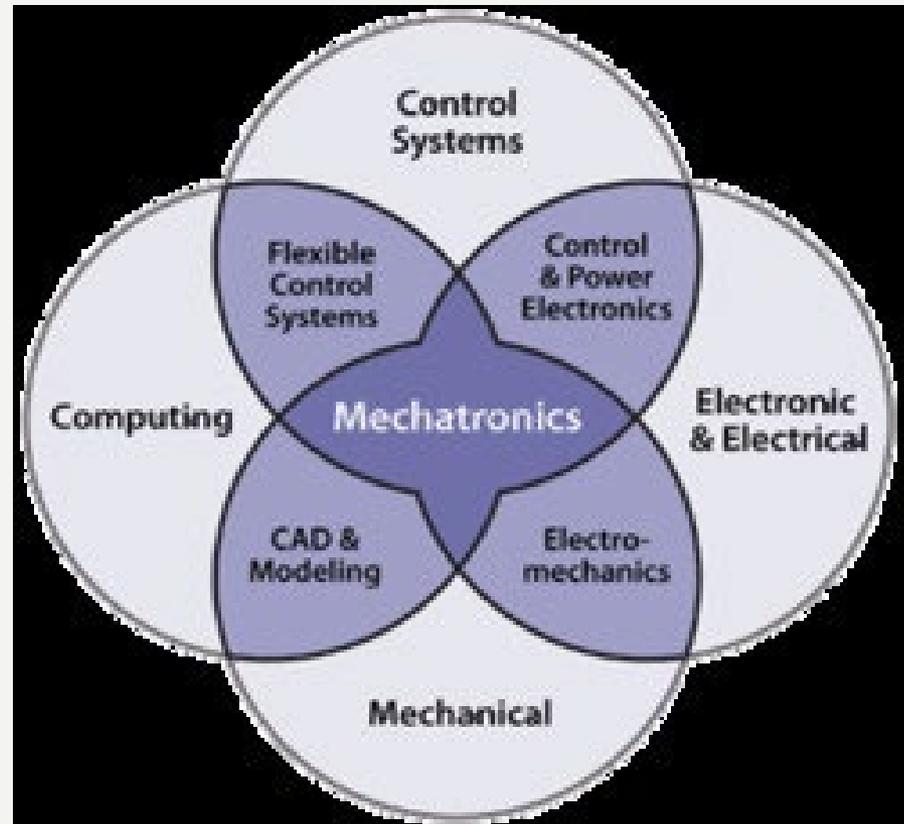
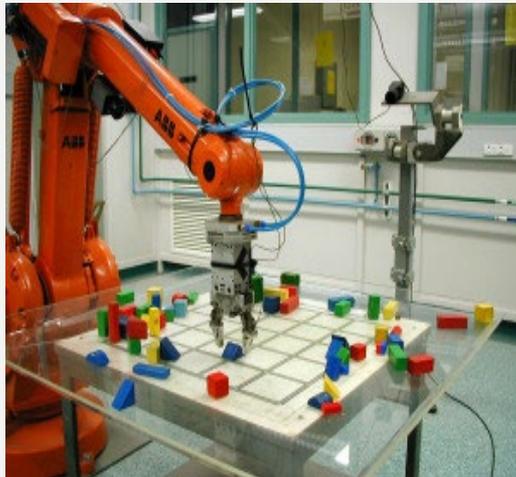
ELECTRICAL INSTALLATION



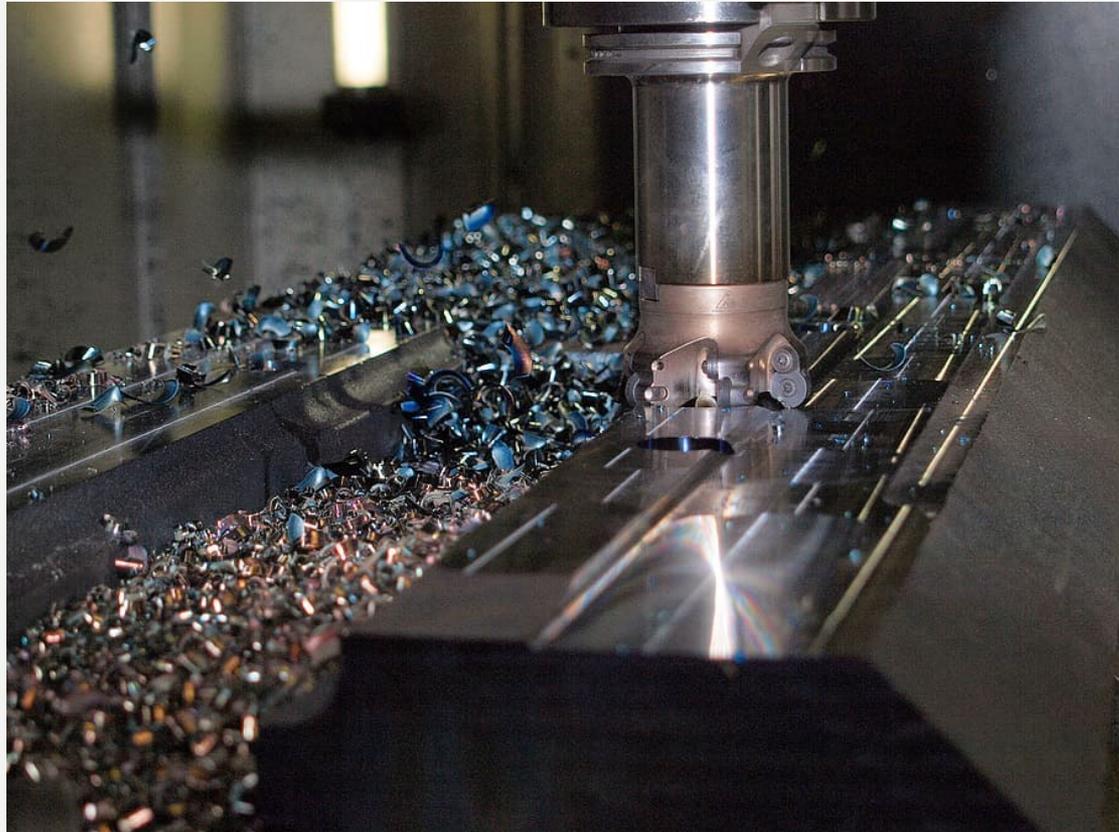
BUILDING TRADES MAINTENANCE



MECHATRONICS, ROBOTICS, & AUTOMATION



PRECISION MACHINING



WELDING



**REGISTRATION WILL BE
COMPLETED *ONLINE* AT
HOME OR SCHOOL!!**



**COURSE REGISTRATION WILL BE
OPEN ONLINE FROM
MARCH 12- MARCH 31!**

**USE YOUR SKYWARD ACCOUNT
TO REGISTER (MAKE SURE YOU
KNOW YOUR USERNAME AND
PASSWORD!)**

REGISTRATION WINDOW **MARCH 12-31**

SCHOOL COUNSELORS WILL
BE IN SS CLASSES
MARCH 16-18 TO HELP WITH
REGISTRATION

MAKE UP REGISTRATION
MARCH 24-31 PERIODS 1 & 7

STUDENT ACCESS COURSE REQUESTS

The screenshot shows the Skyward Family Access interface. At the top, there is a navigation bar with the Skyward logo, 'Family Access All Students', and user options like 'MOM DOE', 'My Account', 'Email History', and 'Exit'. A 'District Links' icon is also present. Below the navigation bar is a 'Schedule' section with a sidebar menu on the left containing links for Home, Arena Scheduling, Calendar, Gradebook, Attendance, Student Information, Food Service, Schedule (highlighted), Test Scores, Fee Management, Graduation Requirements, Endorsements, Academic History, Report Cards, SkyAlert, Health Info, and Login History. The main content area displays a table of course requests for the current term and the next two terms. A teal callout box points to the 'Schedule' link in the sidebar.

Course Requests **now open**

JANE: Request Courses for 2015-2016 in YOUR SCHOOL
JOHN: Request Courses for 2015-2016 in YOUR SCHOOL

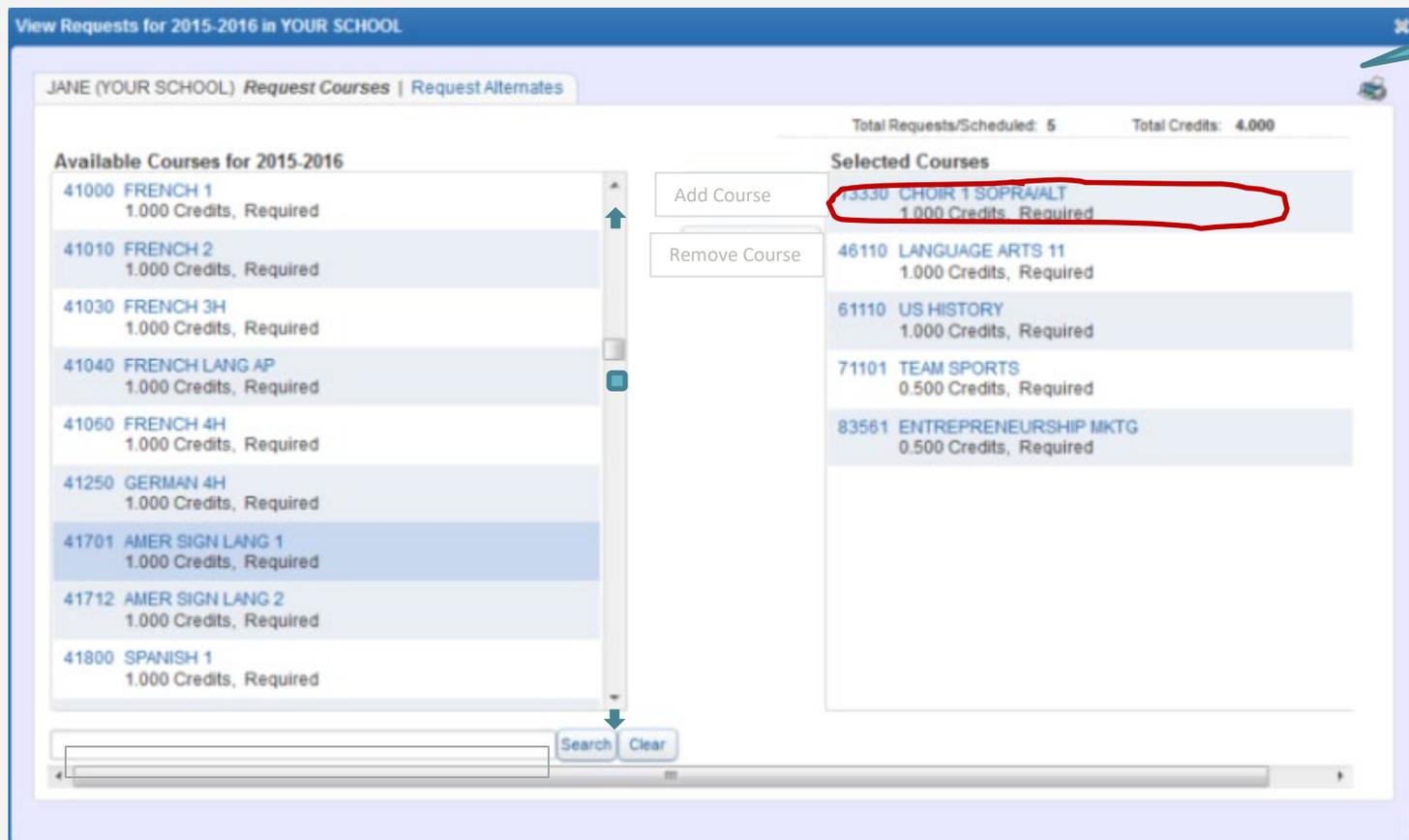
The current term is highlighted

		Term 3 (01/26/15 - 03/26/15)	Term 4 (03/30/15 - 05/05/15)
		PSYCHOLOGY 2 A Room SS200	PSYCHOLOGY 2 A Room SS200
		BIOLOGY A Room S108	BIOLOGY A Room S108
		DRIVERS EDUCATION A Room C109	CAREERS (NON CTE) A Room 204
		GERMAN 1 A Room E229	GERMAN 1 A Room E229
		LANGUAGE ARTS 10 B Room 207	LANGUAGE ARTS 10 B Room 207
		ENTREPRENEURSHIP MKTG B Room B200	ENTREPRENEURSHIP MKTG B Room B200
		SECONDARY MATH 2 B Room M103	SECONDARY MATH 2 B Room M103
		RELEASE TIME B Room SEMN	RELEASE TIME B Room SEMN

Click the [Schedule](#) link to access the Course Requests for the future school year.

Add\Remove Course Requests for Future Scheduling

- To SEARCH for Courses use the scroll bar or Search box(at the bottom).
- To ADD a course from the Available Course area, click the course then click the ADD COURSE button.
- To REMOVE a course from your Selected Course area, click the course then click the Remove Course button.



The screenshot displays a web interface for viewing course requests. The title bar reads "View Requests for 2015-2016 in YOUR SCHOOL". Below the title bar, there are tabs for "JANE (YOUR SCHOOL) Request Courses" and "Request Alternates". The interface is divided into two main sections: "Available Courses for 2015-2016" on the left and "Selected Courses" on the right. The "Available Courses" list includes courses like FRENCH 1, FRENCH 2, FRENCH 3H, FRENCH LANG AP, FRENCH 4H, GERMAN 4H, AMER SIGN LANG 1, AMER SIGN LANG 2, and SPANISH 1. The "Selected Courses" list includes CHOIR 1 SOPRA/ALT, LANGUAGE ARTS 11, US HISTORY, TEAM SPORTS, and ENTREPRENEURSHIP MKTG. A red oval highlights the "CHOIR 1 SOPRA/ALT" course in the Selected Courses list. A callout bubble points to a "Click to Print" button in the top right corner. At the bottom of the interface, there is a search box and "Search" and "Clear" buttons.

View Requests for 2015-2016 in YOUR SCHOOL

JANE (YOUR SCHOOL) Request Courses | Request Alternates

Total Requests/Scheduled: 5 Total Credits: 4.000

Available Courses for 2015-2016

- 41000 FRENCH 1
1.000 Credits, Required
- 41010 FRENCH 2
1.000 Credits, Required
- 41030 FRENCH 3H
1.000 Credits, Required
- 41040 FRENCH LANG AP
1.000 Credits, Required
- 41060 FRENCH 4H
1.000 Credits, Required
- 41250 GERMAN 4H
1.000 Credits, Required
- 41701 AMER SIGN LANG 1
1.000 Credits, Required
- 41712 AMER SIGN LANG 2
1.000 Credits, Required
- 41800 SPANISH 1
1.000 Credits, Required

Selected Courses

- 33330 CHOIR 1 SOPRA/ALT
1.000 Credits, Required
- 46110 LANGUAGE ARTS 11
1.000 Credits, Required
- 61110 US HISTORY
1.000 Credits, Required
- 71101 TEAM SPORTS
0.500 Credits, Required
- 83561 ENTREPRENEURSHIP MKTG
0.500 Credits, Required

Click to Print

Search Clear

Alternate Requests are used if the requested courses cannot be scheduled

- Click the “Request Alternate” tab
- To ADD a course from the Available Alternate Course area, click the course then click the ADD COURSE button.
- To REMOVE a course from your Selected Alternate Course area, click the course then click the Remove Course button.
- To Prioritize Alternate Courses, use the arrow buttons.

The screenshot displays a web interface for managing course requests. At the top, it says "View Requests for 2015-2016 in YOUR SCHOOL". Below this, there are tabs for "JANE (YOUR SCHOOL) Request Courses" and "Request Alternates". A summary bar shows "Total Requests/Scheduled: 5", "Total Alternates: 3", and "Total Credits: 4.000".

The interface is divided into two main sections:

- Available Alternate Courses for 2015-2016:** A list of courses with their IDs, names, and credit requirements. A red arrow points from the "Request Alternates" tab to this section.
- Selected Alternate Courses:** A list of courses that have been added to the selection. Each entry includes a number, an up/down arrow for prioritization, and the course details. A red circle highlights the summary bar above this section.

Buttons for "Add Course" and "Remove Course" are located between the two sections. A "Click to Print" callout bubble is in the top right corner. At the bottom, there are "Search" and "Clear" buttons, and a note: "A maximum of 10 Alternate Courses can be assigned."

Course ID	Course Name	Credits	Requirement
00050	AIDE TEACHER	1.000	Required
00143	AIDE TEACHER	1.000	Required
01535	LIBRARY SCIENCE	1.000	Required
01548	TECHNOLOGY INTERNSHIP	1.000	Required
01549	ADMINISTRATIVE INTERN	1.000	Required
02001	ADV STUDIES/RSRCH	0.500	Required
02002	ADVANCED STUDIES/ RESEARCH	0.500	Required
0202	SUMMER AGRICULTURE	0.250	Required
02040	ED RELEASE	0.000	Required

Priority	Course ID	Course Name	Credits	Requirement
	02131	ACT PREP	0.250	Required
2	10291	CERAMICS 1	0.500	Required
3	41000	FRENCH 1	1.000	Required
R	13330	CHOIR 1 SOPRA/ALT	1.000	Required
R	46110	LANGUAGE ARTS 11	1.000	Required
R	61110	US HISTORY	1.000	Required
R	71101	TEAM SPORTS	0.500	Required
R	83561	ENTREPRENEURSHIP MKTG	0.500	Required

REGISTRATION STEPS

1. REGISTER ONLINE
2. PRINT YOUR COMPLETED FORM
3. HAVE YOUR PARENTS SIGN THE FORM
4. RETURN COMPLETED FORM TO YOUR
SOCIAL STUDIES TEACHER
BY APRIL 2!

**COURSE REGISTRATION MUST BE
COMPLETED, SIGNED AND
RETURNED TO YOUR SOCIAL
STUDIES TEACHER BY:
APRIL 2, 2026!!**



Or else
we pick
your
courses
for
you!!!