

# **MADISON CENTRAL HIGH SCHOOL**



**COURSE DIRECTORY  
2010-2011**

## AGRISCIENCE EDUCATION

<b>Introduction to Agricultural Science and Technology</b>	<b>5820</b>
Introduces students to the values segments of the agriculture industry. Local and state occupational opportunities will be emphasized. Basic animal science, plant and land science, and agricultural mechanics skills will be introduced along with the selection and planning of an agricultural experience program and related recordkeeping. Leadership development will be provided through FFA. Students will receive personal guidance and counseling with preparatory instructional program selection.	
<b>Suggested Grade Level: 9</b>	<b>Credit: 1</b>
<b>Agriscience</b>	<b>5821</b>
Studies the scientific agricultural approach to animal science and selection, plant and land science, and agricultural mechanics. Laboratory experiences relating to basic and current technology will be part of the program. Content may be enhanced by appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program and keep appropriate records.	
<b>Suggested Grade Level: 10 - 11</b>	<b>Credit: 1</b>
<b>Agri-Biology</b>	<b>5830</b>
This course studies the scientific agricultural approach to animal science, plant and land science. Content may be enhanced by appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program and keep appropriate records. Aligned with the biology core content, this course meets the state requirement for Biology credit. Students should be in an agriculture career pathway and be working toward the status of a completer in Agriculture.	
<b>Prerequisite: Earth Science/Chemical Science (ESCS)</b>	
<b>Suggested Grade Level: 11</b>	<b>Credit: 1</b>
<b>Agriculture Communications and Leadership</b>	<b>5829</b>
This course develops an understanding of fundamental skills necessary to be successful in the agricultural communications industry. Provides guided practice and applied experience utilizing various styles of communication including oral, written, and electronic communications. Techniques of communications will include: traditional print media, brochure development, computer program applications, and Internet usage. Leadership development will be provided through FFA.	
<b>Suggested Grade Level: 10 – 12</b>	<b>Credit: .5</b>
<b>Agricultural Employment Skills</b>	<b>5847</b>
Provides opportunities to develop skills in job searching, preparing resumes, writing letters of application, job interviews, attitude at work, communicating effectively, human relations, and accepting responsibilities. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program. All co-op students must take this course.	
<b>Suggested Grade Level: 11 - 12</b>	<b>Credit: .5</b>
<b>Animal Science</b>	<b>5823</b>
Develops knowledge and skills pertaining to livestock identification, selection, nutrition, reproduction and genetics, health management and marketing of one or more species of farm animals. The latest biogenetic applications will be included. The content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program.	
<b>Suggested Grade Level: 10 - 12</b>	<b>Credit: 1</b>
<b>Landscape Design</b>	<b>5836</b>
This course prepares students for occupations in the landscaping industry. The program consists of site evaluation including sketching, planning, and drawing landscape plans; performing calculations related to landscape construction; and identification of landscape plants and their characteristics. Estimating, bedding, installation, and maintenance of landscape plants will be included. Content may be enhanced by appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program.	
<b>Suggested Grade Level: 10 - 12</b>	<b>Credit: 1</b>
<b>Greenhouse Technology</b>	<b>5840</b>
Course includes greenhouse structures, regulating the greenhouse environment, plant propagation including tissue culture, plant growth, structure and environment of plants for bed and container growing, and production cycles. Variety selection, fertilization, pest and disease control and growth regulators are stressed. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program. This course may be extended to two credits offered on a two-hour basis, provided that instruction is enhanced with laboratory experience and in-depth skill development.	
<b>Suggested Grade Level: 10 - 12</b>	<b>Credit: .5</b>
<b>Crop Technology</b>	<b>5825</b>
Develops scientific knowledge and skills pertaining to the production of crops. Instruction includes variety selection, seedbed preparation, fertilization, pest and disease control harvesting, and marketing crops. Current biotechnological applications may be included. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program.	
<b>Suggested Grade Level: 10 - 12</b>	<b>Credit: .5</b>
<b>Equine Science (Horses)</b> <b>Not offered for next year: This course will be offered in 2011-2012</b>	<b>5826</b>
Develop knowledge and skills pertaining to breed identification, selection, anatomy, physiology, nutrition, genetics and reproduction management, training, grooming, and health disease control. Leadership development will be provided through FFA. Each student is expected to have an agricultural experience program or be placed for job experience.	
<b>Suggested Grade Level: 10 - 12</b>	<b>Credit: .5</b>

<b>Agri-Science Coop</b>		<b>5800</b>
Develops the skills necessary to become proficient in the area of agricultural management.		
<b>Prerequisite: Must have completed three (3) years of agri-science and must get approval of instructor. Must take course 5847 – Agriculture Employment Skills.</b>		
<b>Suggested Grade Level: 12</b>		<b>Credit: .5 up to 2</b>
<b>Plant and Land Science (Land Judging)</b>		<b>5822</b>
The study of soil origins, formations, and conservation as a natural resource. Also includes water quality, use pollution, and conservation. Emphasis will be placed on conservation control measures, such as contours, waterways, and pond structures. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA. Each student is expected to have an experience program.		
<b>Prerequisite: Agriscience and approval of instructor</b>		
<b>Suggested Grade Level: 11-12</b>		<b>Credit: 1</b>
<b>Animal Technology</b>		<b>5827</b>
Develops the scientific knowledge and skills of animal science from selection to marketing. Instruction includes advanced production practices and current biotechnological applications of one or more species of animals based on community needs. Hands-on experiences emphasized. Leadership development will be provided through FFA.		
<b>Suggested Grade Level: 11-12</b>		<b>Credit: 1</b>
<b>Small Animal Technology</b>		<b>5845</b>
Develop scientific knowledge and skills pertaining to nutrition, health, general care, and breeds of identification for small animals such as dogs, cats, and rabbits. Leadership development provided by the FFA. Each student is expected to have an experience program.		
<b>Suggested Grade Level: 10-12</b>		<b>Credit: .5</b>
<b>Advanced Animal Technology</b>		<b>5828</b>
This course is developed in cooperation with colleges and universities in order to receive college credit. This course will provide students with broad-based knowledge and skills similar to those taught in Animal Science in college at the freshman level. Content may be enhanced with appropriate computer applications. Leadership development the FFA.		
<b>Prerequisite: Animal Science or Animal Technology and approval of instructor.</b>		
<b>Suggested Grade Level: 11-12 (2nd Semester Only)</b>		<b>Credit: 1</b>
<b>Wildlife Resources</b>		<b>5854</b>
This course will develop an awareness of wildlife industry resources. The course includes: a study of ecology and ecosystems, wildlife habitat, population dynamics, management techniques that deal with wildlife in all areas and the regulations that affect the wildlife industry. Content may be enhanced with appropriate applied scientific laboratory activities and computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.		
<b>Suggested grade level: 10-12</b>		<b>Credit: .5</b>

#### ARMY JROTC PROGRAM

<b>Introduction to Army JROTC</b>	<b>18 weeks</b>	<b>2908</b>
Topics include basic leadership skills, academic leadership, and citizenship studies. Programs, which build self-confidence and self-discipline, will be available.		
<b>Suggested Grade Level: 9-12</b>		<b>Credit: .5</b>
<b>Army Junior ROTC 1</b>		<b>2909</b>
The following topics are a major part of this course: insight into ethical values and principles that underlie good citizenship including integrity, responsibility, and respect for constituted authority; development of leadership potential with attendant abilities to live and work cooperatively with others; knowledge of educational and vocational opportunities to function effectively as a member of the military team; familiarity with the history, purpose, and structure of the military services with emphasis on accomplishments of the United States Army; appreciation of the importance of physical fitness in maintaining good health; and, ability to think logically and to communicate effectively both orally and in writing. Introduction to leadership development is also included in this course emphasizing: introduction to ROTC and the Army; hygiene and first aid; map reading; leadership development and drill; and, methods of instruction.		
<b>Suggested Grade Level: 9-12</b>		<b>Credit: 1</b>
<b>Army Junior ROTC 2</b>		<b>2910</b>
The topics named in the course description above are continued at this level. Leadership development continues on an intermediate level: intermediate map reading; methods of instruction; weapons; leadership development and drill; battalion organization; the United States Army; people, places, and times; leadership theory; and selected optional subjects.		
<b>Suggested Grade Level: 10-12</b>		<b>Credit: 1</b>
<b>Army Junior ROTC LD 3</b>		<b>2911</b>
The same course description continues for the third level of Army Junior ROTC LD 3. Leadership development continues on an applied level: applied leadership; psychology of leadership; seminar in leadership and management; leadership and small unit leader problems; leadership and drill; methods of instruction; map reading; service opportunities; and development of the Army; and selected optional subjects.		
<b>Prerequisite: Students must apply to the instructor for admission.</b>		
<b>Suggested Grade Level: 10-12</b>		<b>Credit: 1</b>

<b>Army Junior ROTC LD 4 - Leadership Counseling, Leadership Communications</b>	<b>2912</b>
The same course description continues for the fourth level Army Junior ROTC LD 4. Leadership development continues on an advanced level: leadership development and drill; advanced methods of instruction (practical application); staff functions and procedures; and selected optional subjects. This course will teach responsibilities a supervisor has to insure information is transferred accurately up, down, and laterally. Cadets will understand how to acquire and incorporate feedback to insure accurate communications. Cadets will learn about barriers to communication and how to avoid or overcome them. Additionally cadets will learn responsibilities a supervisor has to his/her subordinates, superiors, and unit. It will instruct on types and purpose of counseling. The course will emphasize positive approach over negative approach when interacting with subordinates.	
<b>Prerequisite: Students must apply to the instructor for admission.</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Army Junior ROTC 5- Leadership, Decision Making and Writing for Sergeants</b>	<b>2913</b>
The course will teach leadership principals and the decision making process. It will provide the opportunity to apply these principles and fundamentals during normal JROTC classes where the cadets will be assigned leadership positions. Writing abilities will be enhanced through a writing for sergeants assessment program. The primary areas are sentence structure and grammar.	
<b>Prerequisite: Students must apply to the instructor for admission.</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Army Junior ROTC 6 – Staff Organization, Problem Solving, and Financial Planning</b>	<b>2914</b>
This course will teach how staffs function together in order to solve problems and enable leadership to make sound decisions. It will provide the opportunity to form staff structures in order to solve assigned tasks using proper staff actions. Cadets will complete a financial planning program developed by the National Endowment for Financial Education.	
<b>Prerequisite: Students must apply to the instructor for admission.</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Army Junior ROTC – Special Programs</b>	<b>2917</b>
This course is designed to meet requirements of Cadets wishing to tailor a course to fit their particular interest in JROTC beyond the 4 <sup>th</sup> Level. The course may be taken for multiple credits. Set up on a 18 week basis, it is structured to the cadets leadership position and special service learning projects assigned. This course may be taken multiple times and can be structured to a 9 week ¼ credit with permission from the guidance office	
<b>Prerequisite: Students must apply to the instructor for admission.</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: .5</b>

#### ARTS & HUMANITIES

The required Humanities credit for graduation can be earned by one of the following options.

- A. One credit in Humanities
  - B. Three credits in ONE area: art, drama, or music (band or chorus)
  - C. Two credits in combination from art, drama, or music (band or chorus)
- Example: One credit in art and one credit in drama  
One credit in art and one credit in music  
One credit in drama and one credit in music

<b>Humanities</b>	<b>2219</b>
Humanities includes the study of beliefs, thoughts, and traditions of humankind as reflected in history, philosophy, religion, dance, music, theater, the visual arts, and literature. The study of these subjects promotes an understanding of the connection among the arts and their historical and cultural context.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Visual Art 1</b>	<b>2801</b>
This class introduces and explores the basics of art. Students will experiment with drawing, painting, two and three dimensional design, as well as art history and aesthetics. No previous art experience or special drawing skills are necessary.	
<b>Suggested grade level: 9-12</b>	<b>Credit: 1</b>
<b>Advanced Studio</b>	<b>2802</b>
This activity-based class allows students to explore individual art mediums, such as paint, charcoal, pencil, clay, etc. in depth. Each nine-week class is different and can be repeated for additional art credits. There is a special emphasis in history and careers in the visual arts. Students will enter their work in competitions and exhibitions.	
<b>Prerequisite: Visual Art 1</b>	
<b>Suggested grade level: 10-12</b>	<b>Credit: .5</b>
<b>Introduction to Theatre Arts 1</b>	<b>2351</b>
This course is an in-depth study of the history of theatre, with a brief look at the literary, technical, and performance elements of drama. A major portion of the grade for this course will include participation, daily work, projects, and other assessments.	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Introduction to Theatre Arts 2</b>	<b>2350</b>
This course is an in-depth study of the history of theatre, with a look at the literary, technical, and performance elements of drama. A major portion of the grade for this course will include participation, daily work, projects, and other assessments.	
<b>Prerequisite: Introduction to Theatre Arts 1</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>

<b>Advanced Drama Troupe</b>	<b>2355</b>
This course will include in-depth study of the performance side of theatre. Final assessments for this course will be performance based. Students will have the opportunity to participate in acting contests throughout the state. Students will also be assessed upon their growth as a performer.	
<b>Prerequisite: Introduction to Theatre Arts 1 and Instructor approval</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Theatre Technology and Production</b>	<b>2352</b>
This course is an in-depth study of the technical elements of drama. The semester project for this class includes the production of sets, props, etc., for theatrical productions. Students will also study makeup application, sound design, lighting design, and costume design.	
<b>Prerequisite: Introduction to Theatre Arts 1 and Instructor Approval</b>	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Music Theory</b>	<b>2823</b>
Students will learn the rules and mechanics of music theory. Students will apply these rules to analysis and composition. Students must possess a basic knowledge of musical basics. Enrollment into this class is open to music capable students with instructor approval.	
<b>Suggested Grade Level: 10 – 12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Music Theory</b>	<b>2828</b>
Students will study advanced rules and mechanics of music theory including but not limited to chord structure, terminology, sequencing, and computer composition using Sibelius 4. Students will apply these rules to analysis and composition. Students should possess a strong musical background, with a history in band, chorus, or private music lessons.	
<b>Prerequisite: Enrollment into this class is open to music capable students and requires instructor approval.</b>	
<b>Suggested Grade Level: 11 – 12</b>	<b>Credit: 1</b>
<b>SATB Concert Choir</b>	<b>2821</b>
Students will learn music skills including vocal techniques, notation, listening skills, and reading music. Students will apply these skills to the various styles of vocal literature. Students will demonstrate performance skills in festivals, concerts, off-campus performances, tests, and in-class graded octet performances.	
<b>Suggested Grade Level: 9 – 12</b>	<b>Credit: 1</b>
<b>Women's Ensemble</b>	<b>2824</b>
Students will advance learned performance related skills such as those mentioned in SATB Concert Choir. Students in Women's Ensemble will develop musical skills including simple choreography, stage presence, and advanced vocal technique. These techniques will be demonstrated in performances throughout the community and state.	
<b>Prerequisite: This class is open via audition only.</b>	
<b>Suggested Grade Level: 10 – 12</b>	<b>Credit: 1</b>
<b>Madrigals – SATB</b>	<b>2836</b>
Students in Madrigals will develop musical skills including stage presence and advanced vocal technique. Specifically, this course will include development and performance in a cappella vocal music of different time periods with a focus on Medieval and Renaissance. These techniques will be demonstrated in performances throughout the community and state. Madrigal students are held to the highest standard of musicianship and behavior.	
<b>Prerequisite: This class is an auditioned group and approval by the instructor is required.</b>	
<b>Suggested Grade Level: 10 – 12</b>	<b>Credit: 1</b>
<b>Symphonic Band</b>	<b>2837</b>
Symphonic Band is a class dedicated to the performance and study of outstanding band literature. Students must either have studied an instrument in middle school, or may, in rare cases, be accepted without such study, but with instructor's approval. Students in the Symphonic Band must meet extremely rigorous standards of musicianship and behavior, and membership is renewable on a semester to semester basis.	
<b>Prerequisite: Successful completion of a middle school instrumental program, study with an approved private teacher, or permission of the instrumental instructor. Students should complete the band course in order to develop and maintain the musical skills necessary to successfully participate in wind ensemble.</b>	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Wind Ensemble</b>	<b>2835</b>
Wind Ensemble is a class dedicated to exploring the highest level of literature accessible for high school musicians. Wind ensemble is open to only the most advanced Wind and Percussion musicians at Madison Central, and students are selected for Wind Ensemble by instructor approval and a rigorous audition during the summer. Wind ensemble students are held to the highest standards of musicianship and behavior.	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Percussion Techniques</b>	<b>2833</b>
Percussion Techniques is a class dedicated to the performance and study of the best band and percussion ensemble literature. Students in Percussion Techniques must meet extremely rigorous standards of musicianship and behavior, and musicianship is renewable on a semester to semester basis. Percussion players will take this class for participation in the marching band, wind ensemble and symphonic band.	
<b>Prerequisite: Successful completion of a middle school instrumental program, study with an approved private teacher, or permission of the instrumental instructor.</b>	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Color Guard (Band)</b>	<b>2832</b>
Color Guard includes training in flag, dance, and rifle technique as it applies to performance in marching band. Students will participate in marching band season. This class is only available for the fall semester.	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: .5 or 1</b>

<b>Instrumental Musicianship 1</b>	<b>2838</b>
Instrumental Musicianship 1 is an intensive 18-week course for the advanced musician considering a career in music performance or education. Students will receive a significant amount of individual attention on their instrument and prepare for All-State, Summer Festival and College Auditions. In addition, advanced scales, etudes and rhythmic exercises will be studied.	
<b>Prerequisite: Audition for Instructor</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: .5</b>
<b>Instrumental Musicianship 2</b>	<b>2839</b>
Instrumental Musicianship 2 an intensive 18-week course for the advanced musician considering a career in music performance or education. Students will receive a significant amount of individual attention on their instrument focused towards college audition preparation and solo study. This class is specifically geared for the most advanced musician looking to pursue admission to conservatory level institutions.	
<b>Prerequisite: Audition for Instructor</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: .5</b>
<b>Music Appreciation</b>	<b>500911</b>
Music Appreciation is a music course for the student who enjoys music and wants to learn about music through the ages. This course teaches the basic elements of music appreciation and music history. Its integrated approach allows students with no previous musical experience to explore the history of music through reading, listening, writing assignments, concert attendance, and research. Topics covered in the course include the appreciation process, musical styles and taste, music history, sound, musical instruments, listening techniques, elements of music, and roles of composers, performers, and listeners. Stylistic periods in music span from the early beginnings of music into the twenty-first century.	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: .5 or 1</b>

### FAMILY AND CONSUMER SCIENCES

<b>Life Skills</b>	<b>5910</b>
This comprehensive course provides an opportunity for acquiring basic life skills and allows students to select specific areas for concentrated study. Emphasis is on work and family, adolescent development, selection and care of clothing, consumer spending, housing choices, challenges of child rearing, and guidance in establishing relationships. Students will create an article of clothing through a sewing project (there is a minimum \$10 fee for the sewing project). Leadership development will be provided through the Family, Career & Community Leaders of America.	
<b>Suggested Grade Level: 9-10</b>	<b>Credit: 1</b>
<b>Foods and Nutrition</b>	<b>5924</b>
This course is designed to assist students in making critical decisions about food, which contributes, to health and well being. Laboratory instruction is included as an application process. Practical problems addressed relate to attitudes toward food, nutrition facts, special health concerns and diets, management of food resources, preparation skills and careers in nutrition and food service. Leadership development will be provided through the Family, Career & Community Leaders of America.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5</b>
<b>Culinary Skills (Tribal Treats)</b>	<b>5925</b>
This course is designed to provide training for employment in hospitality services in the area of food service. Career decisions and demands on family life are explored as well as skills and concepts related to supportive services such as public relations, food and beverage operations, management techniques and entrepreneurship. Instruction will include on-the-job experiences. Students are required to obtain a food handlers card through this course (there is a \$5 fee for the card). Leadership development will be provided through the Family, Career & Community Leaders of America.	
<b>Prerequisite: Foods</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Child/ Human Development and Parenting</b>	<b>5921</b>
This course combines both Child/Human Development and Parenting. Practical problems related to understanding the types and stages of human growth and development, recognizing effects of heredity and environment on human growth and development, meeting the needs of exceptional children, promoting optimum growth and development in the infancy, toddler, preschool, middle childhood, adolescent, and adulthood stages are addressed. This course is also designed to aid students in developing parenting and care-giving skills that can be applied in a variety of situations, which include becoming an informed parent, caring for the newborn, being an effective parent/caregiver, and caring for the sick and elderly. Careers in child/human development and care-giving are explored. Leadership will be provided through the Family, Career & Community Leaders of America.	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Entrepreneurship (Tribal Threads)</b>	<b>5939</b>
This course is designed to acquaint students with entrepreneurial concepts and skills in related family and consumer science careers. Students will be encouraged to develop and follow a FACS related business through decision -making and leadership skills as students plan, operate and evaluate and actual small business. Students will operate our school based embroidery business Tribal Threads to gain a realistic hands-on approach in the world of small business today.	
<b>Prerequisite: Application to the instructor for approval</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credits: 2</b>
<b>Special Topics – Design and Production</b>	<b>5944</b>
This course is designed to acquaint students with entrepreneurial concepts and skills in related family and consumer science careers. Students will be encouraged to develop and follow a FACS related business through decision -making and leadership skills as students plan, operate and evaluate and actual small business.	
<b>Prerequisite: Application to the instructor for approval</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>

## HEALTH, DRIVER'S EDUCATION, AND PHYSICAL EDUCATION

**Driver's Education** **2840**  
Driver's education teaches basic driving skills, safety habits, and a mature approach to driving and knowledge of laws governing the road. Included in this course are the economics of owning, insuring, and maintaining an automobile. A student wishing to take driver's education classes must have a driver's permit or driver's license.  
**Suggested Grade Level: 11-12** **Credit: .5**

**Health** **2851**  
The focus of the health education course is to impress upon students the importance of taking positive action to maintain wellness. The course of study for health education is intended to provide information and skills to help the student become knowledgeable to total health. Areas of study include physical, mental, social, and emotional wellness; family life; HIV and AIDS; STDs; interpersonal relationships; safety and first aid, nutrition, disease prevention and control; stress management; suicide; substance abuse, and current health.  
**Suggested Grade Level: 9-10** **Credit: .5**

### GUIDELINES FOR PHYSICAL EDUCATION

**NO STUDENT MAY TAKE TWO PHYSICAL EDUCATION CLASSES AT THE SAME TIME.**

**Students may take a maximum of 36 weeks of physical education per school year.**

**No other Physical Education class can be substituted for Physical Education 1.**

**Physical Education 1** **2881**  
Physical Education 1 is the basic secondary physical education course required of all pupils. It provides an extension of instruction received during elementary and middle childhood physical education in activities selected according to individual needs and interests of pupils. A variety of activities are introduced which stress the development of basic skills, rhythmic activities, individual, dual and team sports and games, self-testing, physical fitness activities, psychomotor skills, lifetime physical activities, weight training, skill training and conditioning, rules and sportsmanship, safety and equipment and dance.  
**Suggested Grade Level: 9-10** **Credit: .5**

**Physical Education 2** **2882**  
Physical Education 2 is a more advanced class than its prerequisite, Physical Education 1. It is designed to promote lifetime group activities and individual lifetime activities with emphasis on the overall physical fitness of the student.  
**Prerequisite: P. E. 1**  
**Suggested Grade Level: 9-12** **Credit: .5**

**Physical Education 3** **2883**  
Its purpose is a continuation of more advanced skills and more opportunities in areas, which stress activities that the student may continue the use throughout his or her lifetime, and again emphasized personal health and fitness through exercise  
**Prerequisite: P. E. 1**  
**Suggested Grade Level: 10-12** **Credit: .5**

**Physical Education 4** **2884**  
It is recommended that students taking this class have a strong background in advanced physical education skills such as team and dual sports, lifetime sports, advanced weight lifting and training, physical fitness and conditioning.  
**Prerequisite: P. E. 1**  
**Suggested Grade Level: 11-12** **Credit: .5**

## LANGUAGE ARTS

**There is required summer reading for ALL English 1, 2, 3, and 4 – this includes regular, honors, and AP.**

**English 1** **2301**  
This class meets the requirement for the first year of English. It is recommended for students who read and write below their expected grade - level. There is required summer reading for this course.  
**Suggested Grade Level: 9** **Credit: 1**

**Honors English 1** **2390**  
This class meets the requirement for the first year of English. It is recommended for students who read and write at the expected 9th grade - levels. The course moves at a faster pace than English 1, and students will be expected to do more in-depth work. Students expecting to be prepared for college following graduation should be enrolled in Honors English classes. There is required summer reading for this course.  
**Suggested Grade Level: 9** **Credit: 1**

**English 2** **2302**  
This class meets the requirement for the second year of English. It is recommended for students who have completed English 1. There is required summer reading for this course.  
**Suggested Grade Level: 10** **Credit: 1**

**Honors English 2** **2395**  
This class meets the requirement for the second year of English. It is recommended for students who have completed Honors English 1 but is open to students who wish to move from English 1. Students expecting to be prepared for college following graduation are encouraged to enroll in Honors English 2. There is required summer reading for this course.  
**Suggested Grade Level: 10** **Credit: 1**

<b>English 3</b>	<b>2303</b>
This class meets the requirement for the third year of English. It is recommended for students who have completed English 2. There is required summer reading for this course.	
<b>Suggested Grade Level: 11</b>	<b>Credit: 1</b>
<b>Honors English 3</b>	<b>2396</b>
This class meets the requirement for the third year of English. It is recommended for students who have completed Honors English 2 but is open to students who wish to move from English 2. Students expecting to be prepared for college following graduation are encouraged to enroll in Honors English 3. There is required summer reading for this course.	
<b>Suggested Grade Level: 11</b>	<b>Credit: 1</b>
<b>English 4</b>	<b>2304</b>
This class meets the requirement for the fourth year of English. It is recommended for students who have completed English 3. The writing portfolio must be completed at an apprentice or above level for a student to receive credit for the course. There is required summer reading for this course.	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Honors English 4</b>	<b>2397</b>
This class meets the requirement for the fourth year of English. It is recommended for students who have completed Honors English 3, but is open to students who wish to move from English 3. Students expecting to be prepared for college following graduation are encouraged to enroll in Honors English 4. The writing portfolio must be completed at an apprentice or above level for a student to receive credit for the course. There is required summer reading for this course.	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Language and Composition</b>	<b>2308</b>
Advanced Placement English –Language and Composition is a college level course concentrating on the study of language and composition. Grammar is not taught as a separate subject, but is incorporated into the student’s numerous writing requirements. Students wishing to take AP English must complete a screening process, which consists of teacher evaluations, CATS scores and writing samples. There is also a summer assignment. This course will count for English 3 or English 4 during the 2010-2011 school year.	
<b>Prerequisite: Appropriate test scores, teacher recommendation, and instructor approval</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Literature and Composition - Will not be offered in 2010-2011; Will be offered again in 2011-2012</b>	<b>2307</b>
Advanced Placement English – Literature and Composition is essentially a college-level course concentrating on the study of American, British, and World Literature. Grammar will not be taught as a separate subject, but grammar skills will be reviewed, practiced, and reinforced through the extensive writing required of each student. Students wishing to take AP English must complete a screening process, which consists of teacher evaluations, CATS scores and writing samples. There is also a summer assignment. This course will count for English 4.	
<b>Prerequisite: Appropriate test scores, teacher recommendation, and instructor approval</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Journalism/Yearbook</b>	<b>2391</b>
This course offers extensive and practical experience in yearbook journalism. Students will learn how to plan and implement the production of the school yearbook. The course may be taken for two years.	
<b>Prerequisite: Students must apply to the instructor for admission</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Journalism/Newspaper 1 – Parent Newsletter</b>	<b>5649</b>
This course offers extensive and practical experience in newspaper journalism. Students will learn how to plan and implement the production of the parent newsletter. This course applies publishing and presentation concepts through the development of the MCHS parent newsletter using Adobe InDesign. Students will produce advertisements upon request from local businesses to be included in the newsletter. Automated equipment such as scanners, digital cameras, CD-ROM, color laser printers, and laser disks may be utilized in creating the newsletter. Additionally, students learn the fundamentals of journalism. Students are taught interviewing, news writing, and editing skills. Basic computer skills and a strong recommendation from an English teacher are required. This class is a prerequisite for Newspaper 2.	
<b>Prerequisite: Students must apply to the instructor for admission by completing an employment form.</b>	
<b>Suggested Grade Level: 10-11</b>	<b>Credit: 1</b>
<b>Journalism/Newspaper 2 – Indian Insider</b>	<b>5659</b>
This course offers extensive and practical experience in newspaper journalism. Students will learn how to plan and implement the production of the school newspaper. This hands-on course applies publishing and presentation concepts through the development of the MCHS student produced newspaper (Indian Insider) using Adobe InDesign. This course offers extended, in depth, exploratory experiences in journalism and will be used to explore career opportunities related to journalism. This course may be taken up to two full years. Students will also produce advertisements upon request from local businesses to be included in the newspaper. Additionally, students will build upon journalism skills learned in Newspaper 1. Written articles and page layouts will be closely scrutinized.	
<b>Prerequisite: Journalism/Newspaper 1; Students must apply to the instructor for admission by completing an employment form.</b>	
<b>Suggested grade level: 11-12</b>	<b>Credit: 1</b>
<b>Journalism/Television – MCTV</b>	<b>5985</b>
This course offers extensive and practical experience in television journalism. Students will learn how to plan and implement the production of the school television news. Working as a team to complete the school news is a must. Students should be prepared to assume several roles in a newsroom setting, both during and after school. This course will last for two periods each day for one semester.	
<b>Prerequisite: Students must apply to the instructor for admission and go through an interview process for acceptance.</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>

**Creative Writing****2321**

This elective course is designed for students who want to explore different modes of creative writing and improve their skills as writers. The course will offer opportunities for students to produce, workshop, revise, and publish both fiction and non-fiction. Assignments will include substantial work with a variety of genres, as well as special projects and collaborations with MCTV.

**Suggested Grade Level: 10-12****Credit: .5****MATHEMATICS**

	<b>Career Bound</b>	<b>College Bound: Degrees requiring College Algebra</b>	<b>College Bound: Degrees requiring Calculus 1 (Option 1)</b>	<b>College Bound: Degrees requiring Calculus 1 (Option 2)</b>	<b>College Bound: Degrees requiring above Calculus 1</b>
<b>Freshman</b>	<b>Algebra 1 AB</b>	<b>Algebra 1</b>	<b>Honors Algebra 1</b>	<b>Honors Algebra 1</b>	<b>Honors Algebra 2</b>
<b>Sophomore</b>	<b>Algebra 2 AB</b>	<b>Algebra 2</b>	<b>Honors Algebra 2</b>	<b>Honors Algebra 2/ Honors Geometry</b>	<b>Honors Geometry</b>
<b>Junior</b>	<b>Geometry AB</b>	<b>Geometry</b>	<b>Honors Geometry</b>	<b>Honors Pre-Calculus</b>	<b>Honors Pre-Calculus</b>
<b>Senior</b>	<b>Algebra 3/Elective</b>	<b>Algebra 3/ Pre-Calculus</b>	<b>Honors Pre-Calculus</b>	<b>Calculus/AP Calculus</b>	<b>Calculus/AP Calculus</b>

**Algebra 1****2710**

This course is designed to thoroughly cover Algebra 1 topics. Those topics include: arithmetic and algebraic principles, real number expressions and operations, order of operations, simplifying numerical and algebraic expressions, working with linear equations in one variable, graph linear equations using slope and intercept, translating words into algebraic expressions, problem solving, addition and subtraction of polynomials, solve and graph inequalities, factor quadratic polynomials, operations with rational expressions, using radicals in equations, four operations with radicals, and applying probability and statistics.

**Suggested Grade Level: 9****Credit: 1****Honors Algebra 1****2791**

This course is an in-depth study of Algebra 1 topics at an accelerated rate. Students enrolling in the honors courses should be very dedicated to the study of mathematics and committed to studying Calculus in high school. Topics include: arithmetic and algebraic principles, real number expressions and operations, order of operations, simplifying numerical and algebraic expressions, working with linear equations in one variable, graph linear equations using slope and intercept, translating words into algebraic expressions, problem solving, addition and subtraction of polynomials, solve and graph inequalities, factor quadratic polynomials, operations with rational expressions, using radicals in equations, four operations with radicals and applying probability and statistics.

**Suggested Grade Level: 9****Credit: 1****Honors Algebra 2****2790**

This course is an in-depth study of Algebra topics studied at an accelerated rate. Students enrolling in the accelerated courses should be very dedicated to the study of mathematics and committed to studying Advanced Placement Calculus in high school. Topics include: arithmetic and algebraic principles, real number expressions and operations, order of operations, simplifying numerical and algebraic expressions, working with linear equations in one variable, graph linear equations using slope and intercept, translating words into algebraic expressions, problem solving, addition and subtraction of polynomials, find common monomial factors of polynomials, multiply and divide polynomials, and solve and graph inequalities, factor quadratic polynomials, operations with rational expressions, using radicals in equations, four operations with radicals, applying probability and statistics, completely factoring polynomials, solving polynomial equations, matrices and determinants, solve quadratic equations using factoring, completing the square and quadratic formula, chart and graph interpretations, solving systems, scientific notation, fractional exponents, in-depth study of functions and graphing, the discriminant, polynomial functions, synthetic division, remainder and factor theorems, polynomial equations, conic sections, exponential and logarithmic functions.

**Suggested Grade Level: 9-10****Credit: 1****Algebra 2****2753**

This course requires a good foundation in Algebra 1 topics. Topics include functions (quadratics, cubics, exponential, logarithmic, and periodic), complex numbers, complex number system, data analysis (including measures of central tendency, lines of best fit, experiments and sampling techniques), probability and statistics, systems of equations, sequences and series. Teacher recommendation from the Freshman Academy will determine whether the student will take this course prior to Geometry.

**Prerequisite: Algebra 1****Suggested Grade Level: 10****Credit: 1****Geometry****2752**

Focus of this course is on discovery and realistic applications of geometric relationships and principles. Topics include constructions, inductive and deductive reasoning, triangles and polygons and their properties, symmetry and transformations, congruence and similarity, relationships between angles, lines, circles, right triangle properties including Pythagorean Theorem, trigonometry and application of special right triangle properties.

**Prerequisite: Algebra 1 and Algebra 2 (may be taken concurrently with Algebra 2)****Suggested Grade Level: 11****Credit: 1**

<b>Algebra 3</b>	<b>2727</b>
This course provides an opportunity for students to reinforce the algebra skills learned in algebra 1 and 2 in order to prepare for credit bearing college math courses. This class is designed for students not meeting the college readiness standard of having at least a 21 on the mathematics portion of their ACT. This class is equivalent to Math 090, 095 and 098 at Eastern Kentucky University. If a student already has a 21 on the math portion of the ACT they should take Pre-calculus, a dual credit course or another math elective.	
<b>Prerequisite: Algebra 1 AB, Algebra 2 AB, Geometry AB and ACT Math &lt; 21</b>	
<b>Algebra 1, Algebra 2, Geometry and ACT Math &lt; 21</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Honors Geometry</b>	<b>2792</b>
This course is a rigorous study of geometry topics including: real world applications and modeling, exploration of two and three dimensional figures, coordinate and transformation approaches, deductive arguments expressed in paragraph form, three-dimensional geometry, development of short theorems, symmetry, congruence, ratio and proportion, geometric mean, area of polygons, apothem of regular polygons, area and volume, triangles, circles, constructions, right triangle trigonometry, analytical geometry, and connections to the real world.	
<b>Prerequisite: Honors Algebra 2 with a grade of C or better</b>	
<b>Suggested Grade Level: 10-11</b>	<b>Credit: 1</b>
<b>Pre-Calculus</b>	<b>2794</b>
This course is taken prior to Calculus or AP Calculus. It includes topics of trigonometry and analytic geometry. Students should be proficient in their algebra and geometry skills so that they can proceed with rigorous pre-calculus topics. Topics include: Theory of equations, systems, functions, synthetic division, algebraic and graphic methods for finding roots and zeros, trigonometric functions, trigonometric identities and equation solving, law of sines and cosines, solving area of any triangle, exponential and logarithmic functions (an in-depth study), functions and end behavior, horizontal and vertical asymptotes, the derivative as a limit.	
<b>Prerequisite: Geometry and Algebra 2 with at least a B or Honors Algebra 2 and Honors Geometry</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Honors Pre-Calculus</b>	<b>2796</b>
This course is taken prior to Calculus or AP Calculus. It includes topics of trigonometry and analytic geometry. Students should be proficient in their algebra and geometry skills so that they can proceed with rigorous Pre-Calculus topics. Topics include: theory of equations, systems, functions, synthetic division, algebraic and graphic methods for finding roots and zeros, trigonometric functions, trigonometric identities and equation solving, law of sine, law of cosine, solving area of any triangle, exponential and logarithmic functions (an in-depth study), functions and end behavior, horizontal and vertical asymptotes, and the derivative as a limit.	
<b>Prerequisite: Honors Algebra 2 and Honors Geometry with a C or better</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Calculus</b>	<b>2797</b>
This course is intended for the superior high school math students who have demonstrated an excellent affinity for mathematics. The course is an in-depth study of the derivative and functions. Computers and graphing calculators will be an integral part of the course. Calculus begins at the start of the spring semester.	
<b>Prerequisite: Pre-Calculus or Honors Pre-Calculus</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Calculus</b>	<b>2795</b>
This course is intended for the superior high school math students who have demonstrated an excellent affinity for mathematics. The College Board sets this course curriculum for Advanced Placement Calculus. Students taking this course will have the opportunity to take the AP Calculus exam in the spring. The course is an in-depth study of the derivative, the integral, and functions. Graphing calculators will be an integral part of the course.	
<b>Prerequisite: Pre-Calculus or Honors Pre-Calculus</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Business Math - Business Calculations for the Office Professional</b>	<b>2747 (060172)</b>
This course is designed to study the principles involved in the field of business with the application of algebra skills. Students will apply skills required for the performance of business tasks including banking, buying and selling, financial records, payroll, personal income taxes, loans, investments and other business applications. Students will have the opportunity to use spreadsheet software, 10-key calculators and linear programming for figuring and tracking solutions to problems. <b>NOTE: NCAA or Kentucky State Department does not recognize Business Math as a pre-college curriculum course.</b>	
<b>Prerequisite: Geometry</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>SCIENCE</b>	
<b>Earth Science/Physical Science (ESPS)</b>	<b>2550</b>
This is an inquiry-oriented, conceptual course integrating concepts from the disciplines of physics and earth/space science. The course covers topics in motion and forces, conservation of energy and the increase in disorder, interactions of energy and matter, and energy in the earth system.	
<b>Suggested Grade Level: 9</b>	<b>Credit: 1</b>
<b>Honors Earth Science/Physical Science</b>	<b>2555</b>
<i>Students must choose EITHER ESPS OR Honors ESPS. They cannot get credit for both.</i>	
This course is designed for those students who are interested in pursuing science and/or pre-professional majors in college. It is an inquiry-oriented conceptual course integrating concepts from the disciplines of physics, chemistry and earth-space science. The course covers topics in motion and forces, conservation of energy and increase in disorder, interactions of energy and matter, and energy in earth, as well as such advanced topics on the formation of the universe and stars, and nuclear reactions. Plus topics in atomic structure, structure and properties of matter, chemical reactions, and the cycling of Earth's chemical reservoirs.	
<b>Prerequisite: Placement tests given at the 8<sup>th</sup> grade level.</b>	
<b>Suggested Grade Level: 9</b>	<b>Credit: 1</b>

<b>Earth Science/Chemical Science (ESCS)</b>	<b>2551</b>
This is an inquiry-oriented, conceptual course integrating concepts from the disciplines of chemistry and earth/space science. The course covers topics in atomic structure, formation of the universe and the stars, structure and properties of matter, chemical reactions, and the cycling of Earth's chemical reservoirs.	
<b>Prerequisite: Earth Science/Physical Science (ESPS)</b>	
<b>Suggested Grade Level: 10</b>	<b>Credit: 1</b>
<b>Biology</b>	<b>2517</b>
This is an inquiry-oriented, conceptual course integrating concepts from the disciplines of biology and earth/space science. This course covers topics in cell structure and function, the molecular basis of heredity, changes in the earth and living systems over time, the interdependence of organisms, matter/energy and organization in living systems, and behavioral biology.	
<b>Prerequisite: Earth Science/Chemical Science (ESCS)</b>	
<b>Suggested Grade Level: 11</b>	<b>Credit: 1</b>
<b>Honors Biology</b>	<b>2597</b>
<i>Students must choose EITHER Biology OR Honors Biology. They cannot get credit for both.</i>	
This course is designed for those students who intend to pursue science and/or pre-professional majors in college (medical, vet, dental, pharmacy). Topics will be covered as described in Introduction to Biology at a much faster pace and in greater depth.	
<b>Prerequisite: Honors Earth Science/Physical Science (ESPS) or Earth Science/Chemical Science (ESCS) <u>with teacher recommendation</u>; Grade of B or better and approval of instructor.</b>	
<b>Suggested Grade Level: 10-11</b>	<b>Credit: 1</b>
<b>Agri-Biology</b>	<b>5830</b>
This course studies the scientific agricultural approach to animal science, plant and land science. Content may be enhanced by appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program and keep appropriate records. Aligned with the biology core content, this course meets the state requirement for Biology credit. Students should be in an agriculture career pathway and be working toward the status of a completer in Agriculture.	
<b>Prerequisite: Earth Science/Chemical Science (ESCS)</b>	
<b>Suggested Grade Level: 11</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Biology</b>	<b>2513</b>
This course is a college-level study of biological principals. The course covers a broad scope of topics with emphasis upon detailed understanding of the processes and functions of life. There is also a summer assignment.	
<b>Prerequisite: Biology or Honors Biology <u>AND</u> Chemistry</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Anatomy and Physiology</b>	<b>2510</b>
This course is an in-depth survey of the systems of the human body. The class is designed to prepare those who are considering health and/or medical careers.	
<b>Prerequisite: Biology or Honors Biology <u>AND</u> Chemistry; Approval of instructor required.</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Forensics</b>	<b>2565</b>
This course will cover the following topics: toxicology, fingerprinting, voiceprint, fiber analysis, document examination, and critical thinking lessons. Students will be expected to participate in group lab activities, problem solving exercises, and other hands on activities.	
<b>Prerequisite: Biology or Honors Biology</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Chemistry</b>	<b>2521</b>
Chemistry is an in-depth study of the interactions of matter and energy. Students will be expected to actively participate in group laboratory activities, problem-solving exercises, and other hands-on activities. Chemistry or Physics is required for students completing the pre-college curriculum.	
<b>Prerequisite: Biology or Honors Biology <u>and</u> Algebra 2</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Honors Chemistry</b>	<b>2529</b>
<i>Students must choose EITHER Chemistry OR Honors Chemistry. They cannot get credit for both.</i>	
This course is designed for those students who intend to pursue science and/or pre-professional majors in college. Topics will be covered as described in Chemistry at a much faster pace and in greater depth.	
<b>Prerequisite: Biology or Honors Biology and Algebra 2 <u>with teacher recommendation</u>; Grade of B or better and approval of instructor.</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Chemistry</b>	<b>2522</b>
This course is a college-level study of chemistry principles. Analytical and abstract thinking are necessary for science-related careers and will be an integral part of this college-level course. This course will be beneficial for students who plan to major in biology, medicine, veterinary science, pharmacy, and chemistry and agricultural engineering. There is also a summer assignment.	
<b>Prerequisite: Chemistry or Honors Chemistry <u>and</u> Pre-calculus (may be taken concurrently <u>with teacher recommendation</u>)</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>

<b>Physics</b>	<b>2532</b>
Physics is an in-depth study of the interactions of the physical world around us. Topics include motion & its causes, heat & temperature, vibrations & wave phenomena, electromagnetism, relativity, & cosmology. Students will be expected to actively participate in group laboratory activities, problem-solving assignments, and hands-on projects designed to help students 'think outside the box'. Students need also have email & internet access. Physics or Chemistry is required for the pre-college curriculum. <b>Prerequisite: Biology or Honors Biology and Algebra 2</b> <b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Physics B</b>	<b>2533</b>
This course is a college-level study of both classical and modern physics. Accordingly, five general areas are covered: Newtonian mechanics, fluid mechanics, thermal physics, electromagnetism, waves & optics along with nuclear and atomic physics. This course will be beneficial to those students who wish to pursue a career in engineering or other physics-related careers. . Students need also have email & internet access. There is also a summer assignment. <b>Prerequisite: Pre-calculus (may be taken concurrently <u>with teacher recommendation</u>)</b> <b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>SOCIAL STUDIES</b>	
<b>Integrated Social Studies</b>	<b>2224</b>
An overview course designed to study geography, economics, and civics for the high school student. This is a required course for graduation and is taken during the freshman year. <b>Suggested Grade Level: 9</b>	<b>Credit: 1</b>
<b>World Civilization</b>	<b>2246</b>
A comprehensive study of world cultures and history and their impact on western civilization. <b>Suggested Grade Level: 10</b>	<b>Credit: 1</b>
<b>U. S. History</b>	<b>2243</b>
America's history is traced from Reconstruction to the present. Primary emphasis is placed upon 20th century United States history. <b>Suggested Grade Level: 11</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) U.S. History</b>	<b>2244</b>
Advanced Placement U.S. History is a college-level course covering U.S. History from pre-colonial times to the present. The course is designed to provide students with the analytical and writing skills necessary to critically interpret trends in U.S. History. Events will be examined from religious, political, economic, and social contexts. A minimum score of at least 17 must be obtained on the reading portion of the PLAN exam in order to take this class. There is also a summer assignment. <b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) World History</b>	<b>2248</b>
Advanced Placement World Civilizations is a college-level course covering World History from approximately 8000 B.C.E. to the present. The course is designed to provide students with analytic skills and factual knowledge necessary to deal critically with the problems of materials in World History. Pre-requisites exist for reading skills and standardized test scores. There is also a summer assignment. <b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Political Science &amp; Economics</b>	<b>2271</b>
The political science portion of this course is designed to focus on the three aspects of the American political systems: the structure of government, the powers and methods of government, and the reasons behind the actions of government and how they relate to people. Specific emphasis will be placed on the historical importance of the Constitution and its current relevance to American society. The economics portion of this course will focus on the Free Enterprise system and the economic role of government, public finance and taxation, unemployment and inflation, national income theory, money and banking, economic fluctuations and growth, and international trade and personal finance. Emphasis will be placed on becoming independent adults who are capable of making their own financial decisions. <b>Suggested Grade Level: 11-12</b>	<b>Credit: .5 or 1</b>
<b>Sociology 1</b>	<b>2261</b>
This course examines the evolution of the social sciences and sociology's unique perspective. Basic methodology of sociology is studied. Emphasis is placed on social stratification and introducing students to conflict theory, symbolic interaction and structural functionalism. <b>Suggested Grade Level: 11-12</b>	<b>Credit: .5</b>
<b>Sociology 2</b>	<b>2262</b>
This course focuses on the major social institutions: family, religion, government, economy, and education. Also, various social problems will be examined through the sociological perspective. Sociology 1 is <u>not</u> a prerequisite for this course. <b>Suggested Grade Level: 11-12</b>	<b>Credit: .5</b>
<b>Advanced Placement (AP) Human Geography</b>	<b>2222</b>
Advanced Placement (AP) Human Geography is essentially a college-level course providing the knowledge, skills, and perspectives necessary to understand our changing world. The focus will be human geography with a concentration in such areas as political, economic, and cultural systems. Issues involving industrialization, urbanization, population, and the environment will also be covered. There is also a summer assignment. <b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Law and Justice</b>	<b>2245</b>
A study of law (civil, criminal, constitutional) and the legal system. Topics covered from among these areas: the need for rules and regulations, interpreting the Constitution, Supreme Court decisions, the Bill of Rights, individual rights, civil and criminal law. <b>Suggested Grade Level: 9-10</b>	<b>Credit: .5</b>

<b>Psychology</b>	<b>2207</b>
A study of how individuals perceive, learn, react, and relate to each other and to themselves. Also included is the importance of attitudes, feelings, and values used in determining human behavior.	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>African American Studies</b>	<b>450877</b>
This course introduces students to the history and culture of African Americans. The course will allow students to explore African American history from Africa to the New Millennium.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>

### TECHNOLOGY EDUCATION

<b>Technology Concepts</b>	<b>5021</b>
Students will work with tools and equipment for the purpose of designing, innovating, and implementing technologies in areas of construction, manufacturing, transportation, energy and power. Possible projects include holiday ornaments, greeting cards, architectural plans, balsa wood bridges and towers, CO <sub>2</sub> cars, small engine over view, and note pads.	
<b>Suggested Grade Level: 9-10</b>	<b>Credit: .5</b>
<b>Technology Design and Application</b>	<b>5022</b>
Through the use of drafting, students will apply technological problem solving in developing critical thinking skills, researching and designing, prototyping, testing and modifying products. Students have the opportunity to build prototypes and finish products of the items they design.	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: .5</b>
<b>Conceptual Engineering</b>	<b>5024</b>
Students will apply technology to solve engineering design problems and create innovative designs using Problem Solving and Design process. This course is designed for students who are interested in a career in engineering.	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: .5</b>
<b>Special Topics in Technology: Home Improvement</b>	<b>5110</b>
This course will cover the basic information and skills needed to understand and use hand tools, power tools, fasteners and assorted building materials for improving and maintaining the appearance of homes. Skills and techniques in carpentry, painting, wall papering, masonry, plumbing and electricity will be taught. This course will improve your ability to repair and maintain a residential structure and its systems.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5</b>
<b>Special Topics in Technology: Photography</b>	<b>5023</b>
Students will learn the art of taking pictures and how to alter them in the digital darkroom. It is very helpful if the student has a camera of their own.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5</b>
<b>Special Topics in Technology: Drama Set Design</b>	<b>5025</b>
This course will include the production of sets, backdrops, props, etc. for theatrical productions. Students will use power tools and learn skills and techniques in carpentry, painting, and set design.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5</b>
<b>Computer Hardware</b>	<b>2019</b>
This course is designed to give students hands-on experience working with computer hardware. These students will solve technical problems and design help strategies.	
<b>Prerequisite: Algebra 1 and Geometry.</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5 or 1</b>
<b>Computer Programming</b>	<b>2120</b>
Major content areas: programming in Microsoft Visual Basic.NET, history of computing, future of computing, careers in computing, and technology of computing. When a student has successfully completed computer programming, he/she will be able to write an algorithm (and/or construct a flow chart) for the solution to a computer programming problem. He/she will then be able to program the solution.	
<b>Prerequisite: Algebra 1 and Geometry.</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Advanced Computer Programming in Java</b>	<b>2128</b>
The class will involve basic programming skills in Java. Topics covered will include standalone programs and Java applets. When a student has successfully completed the course, he/she should be able to write an algorithm (and/or construct a flow chart) for the solution to a computer problem. He/she should then be able to code the solution in Java.	
<b>Prerequisite: Computer Programming</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Networking</b>	<b>2701</b>
This class covers the basics of networking. Students will learn how to connect a workstation to a local area network. Students will learn the concepts of the OSI Model and the TCP/IP protocol stack. Additionally, students will learn how to make patch cables with CAT5 cable and installing network cards in computers. Students will learn to construct web pages with Javascript.	
<b>Prerequisite: Algebra 1</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5</b>

## WORLD LANGUAGES

<b>Spanish 1</b>	<b>2431</b>
Students wanting to take Spanish 1 should have at least an average ability in English. Reading/Language Arts scores will be considered, and students with higher scores will be given first priority to take this class. Native speakers are discouraged from taking the first level of Spanish. <b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Spanish 2</b>	<b>2432</b>
A student is eligible for Spanish 2 after the successful completion of Spanish 1 and with the approval of the Spanish 1 teachers. Also a student having developed language skills outside the classroom (whether by travel or residence in a Spanish speaking country) who is too advanced for Spanish 1 may enter the second level. <b>Prerequisite: Spanish 1</b> <b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Spanish 3</b>	<b>2433</b>
A student is eligible for Spanish 3 after the successful completion of Spanish 2 and with the approval of the Spanish 2 teachers. Also a student having developed language skills outside the classroom (whether by travel or residence in a Spanish speaking country) who is too advanced for Spanish 2 may enter the third level. <b>Prerequisite: Spanish 2</b> <b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Spanish 4</b>	<b>2434</b>
A student is eligible for Spanish after successful completion of Spanish 3 and with the approval of the Spanish 3 teacher. This course emphasizes conversation and composition and is designed for students who wish to continue the study of Spanish but do not wish to enroll in the Advanced Placement course. <b>Prerequisite: Spanish 3</b> <b>Suggested Grade level: 11-12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Spanish Language</b>	<b>2438</b>
A student is eligible to take AP Spanish upon successful completion of Spanish 3 and with the approval of the Spanish 3 teachers. AP Spanish involves in-depth work on the four basic skills and test-taking practice for the Advance Placement exam to fulfill their foreign language requirement for the Commonwealth Diploma or to obtain college credit for foreign language taken in high school. <b>Prerequisite: Spanish 3</b> <b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Latin 1</b>	<b>2411</b>
This course involves the study of beginning Latin grammar and vocabulary as well as Roman history and culture. The history will feature the empirical period of Rome. The cultural aspects taught are the structure of the Roman family within the society of the empire. Some work will be done with oral Latin, but the emphasis will be placed on translation skills. Students will work with the practical applications for Latin such as its use in the English vocabulary and in Latin phrases used in English. Students will make a tunica, the basic garment of all the people of the Roman era. <b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Latin 2</b>	<b>2412</b>
This course continues the processes of Latin grammar and translation. The cultural aspects of the city of Rome in the time of the empire are explored through its architecture, engineering and entertainment. Students will study the elements of Roman architecture and learn to identify these elements in present day buildings. <b>Prerequisite: Latin 1</b> <b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Latin 3</b>	<b>2413</b>
This course continues the processes of Latin grammar and translation at a more advanced level as started in Latin 1 and 2. Roman culture is studied through the examination of the Roman calendar, eating habits, and the Roman Forum – the center of ancient Roman economics, politics, and culture. Students will make their own Roman calendars, construct models, and experience Roman dining. <b>Prerequisite: Latin 2</b> <b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Latin 4</b>	<b>2414</b>
This course continues the process of Latin grammar and translation at a more advanced level as continued in Latin 3 and is designed to prepare students for reading and translation of Latin on the advanced placement level. Roman culture and history will be revealed through the writings of ancient Roman authors. <b>Prerequisite: Latin 3</b> <b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Advanced Placement (AP) Vergil</b>	<b>2417</b>
This course strictly follows the AP curriculum for the study of Vergil's Aeneid in Latin. A solid background in Latin 1-3 is required to be able to handle the material and the pace of the course. This course is designed to help students who wish to take the AP Vergil exam to fulfill their foreign language requirement for the Commonwealth Diploma or to obtain college credit for foreign language taken in high school. <b>Prerequisite: Latin 3</b> <b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>

<b>French 1</b>		<b>2421</b>
Students wanting to take French I should have at least an average ability in English. French 1 is an introduction to the modern language and culture of France as well as to Belgium, Switzerland, Luxembourg, and Quebec (French Canada). A student should enter French with the idea of taking a second year course to achieve some degree of mastery.		
<b>Suggested Grade Level: 9-12</b>		<b>Credit: 1</b>
<b>French 2</b>		<b>2422</b>
French 2 is a continuation of grammar and culture begun in French 1. Students will also focus on other French speaking regions of the world: Northern and Western Africa, the Caribbean Islands, French Polynesia, etc.		
<b>Prerequisite: French 1</b>		
<b>Suggested Grade Level: 9-12</b>		<b>Credit: 1</b>
<b>French 3</b>		<b>2423</b>
French 3 is a continuation of grammar and culture studied in French 2. Students will work on strengthening productive language skills in reading, writing, listening, and speaking. Emphasis is on the mastery of the past, imperfect, future, and conditional verb tenses. Students will be exposed to elements of French and Francophone culture through popular music, film, and literary excerpts.		
<b>Prerequisite: French 2</b>		
<b>Suggested Grade Level: 10-12</b>		<b>Credit: 1</b>
<b>French 4</b>		<b>2424</b>
A student is eligible for French 4 after successful completion of French 3 and with the approval of the French 3 teacher. This course emphasizes conversation and composition and is designed for students who wish to continue the study of French but do not wish to enroll in the Advanced Placement course.		
<b>Prerequisite: French 3</b>		
<b>Suggested Grade level: 11-12</b>		<b>Credit: 1</b>
<b>Advanced Placement (AP) French Language</b>		<b>2430</b>
Students must seek a recommendation from the French teacher to take the Advanced Placement course. This class is for highly motivated students wishing to further their skills in the target language. <b><u>Students must be willing to work independently on extended assignments and practice diligently all components of language acquisition.</u></b>		
<b>Prerequisite: French 3</b>		
<b>Suggested Grade Level: 11-12</b>		<b>Credit: 1</b>
<b>Chinese 1</b>		<b>2441</b>
Students wanting to take Chinese 1 should have at least an average ability in English. Since Chinese is an elective, there are no criteria for admission other than the interest of the student.		
<b>Suggested Grade Level: 9-12</b>		<b>Credit: 1</b>
<b>Chinese 2</b>		<b>2442</b>
A student is eligible for Chinese 2 after the successful completion of Chinese 1 and with the approval of the Chinese 1 teacher. Also a student having developed language skills outside the classroom (whether by travel or residence in a Mandarin speaking country) who is too advanced for Chinese 1 may enter the second level.		
<b>Prerequisite: Chinese 1</b>		
<b>Suggested Grade Level: 9-12</b>		<b>Credit: 1</b>
<b>Chinese 3</b>		<b>2443</b>
A student is eligible for Chinese 3 after the successful completion of Chinese 2 and with the approval of the Chinese 2 teacher. Also a student having developed language skills outside the classroom (whether by travel or residence in a Mandarin speaking country) who is too advanced for Chinese 2 may enter the third level.		
<b>Prerequisite: Chinese 2</b>		
<b>Suggested Grade Level: 9-12</b>		<b>Credit: 1</b>
<b>Classical Mythology</b>		<b>230211</b>
This course is an enlightening and entertaining survey of the myths of the ancient Greeks and Romans. We will survey the major gods and heroes and the creation of the cosmos with their stories and the impact of classical myths on the visual art, theater, literature, film, and music of modern culture.		
<b>Suggested Grade Level: 9-12</b>		<b>Credit: .5 or 1</b>

**Kentucky Tech  
Madison County Area Technology Center**

**AUTOMOTIVE TECHNOLOGY**

<b>Auto Tech 1 (Basic Automotive Electricity)</b>		<b>5052 (470556)</b>
This course is designed to let the student explore several opportunities for a career in the automotive industry. The student will be introduced to shop and personal safety, as well as how to properly and safely use the tools and equipment of the automotive field. Next, this course introduces the student to the principles, theories, and concepts of the automotive electrical system that include the unique diagramming, coding and locating of wiring, and component devices. This is the beginning course for the automotive technology program.		
<b>Suggested Grade Level: 10-12</b>		<b>Credit: 1</b>

<b>Auto Tech 2 (Electrical Systems)</b>	<b>5253 (470562)</b>
This course focuses on the theory and principles relating to automotive electrical/ electronic components. Also the course focuses on the theory and principles relating to the automotive electrical and electronic components including identifying, testing, and diagnosing such component devices. Also, an introduction to the Hybrid Vehicle.	
<b>Prerequisite: 470556</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Auto Tech 2 (Brake Systems)</b>	<b>5050 (470550)</b>
This course involves the operational theory and application of hydraulic disc and drum brakes along with anti-lock brake systems.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Auto Tech 2 (Suspension and Steering)</b>	<b>5068 (470553)</b>
This course presents the automotive suspension system, the diagnosing of suspension problems, identifying components, recognizing tire wear problems, wheel balancing and the use of alignment equipment.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Auto Tech 2 (Climate Control)</b>	<b>5760 (470547)</b>
This course introduces the theory and operation of heating and air conditioning systems. Air conditioning terminology and how to service and troubleshoot mechanical and electrical circuits of heating and air conditioning systems are emphasized.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Auto Tech 2 (Engine Repair)</b>	<b>5065 (470580)</b>
This course provides a series of lectures and demonstrations on the fundamentals of engine repair, troubleshooting and engine operation and maintenance.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Auto Tech 3 (Basic Fuel and Ignition Systems)</b>	<b>5055 (470558)</b>
This course presents the theory, component identification, application, operation, and the service and repair of the basic automotive ignition, fuel, and emission systems, including related components, including distributorless ignition systems.	
<b>Prerequisite: 470532</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Auto Tech 4 (Emission Systems)</b>	<b>5064 (470564)</b>
This course presents the theory, component identification, application, operation, and the service and repair of advanced automotive ignition, fuel, and emission systems, including related components.	
<b>Prerequisite: 470558</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Auto Tech 5 (Computer Control Systems and Diagnosis)</b>	<b>5366 (470560)</b>
This course presents the comprehensive diagnostics of on-board computer control systems, including distributorless ignition systems. The problem solving process, including flow chart reading will be presented.	
<b>Prerequisite: 470564</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>

## CARPENTRY

<b>Introduction to Construction Carpentry</b>	<b>5202 (460211)</b>
This course is an introduction to the construction industry. We learn about all types of construction materials such as wood, concrete and steel. Students will build projects using almost every type of hand tool, portable and stationary power tools used on jobsites today. Required projects are a sawhorse and toolbox. Upon successful completion of required tasks students will have the opportunity to plan and build a project of their choice. We also offer the opportunity to obtain OSHA construction safety training required by many employers that can help during job searches during and after high school.	
If your college plans include engineering, architecture, industrial or construction technology, Carpentry classes can give you a head start above other students with little or no hands on experience. Sign up and experience the thrill of applying your academic skills to real life, hands on building of things you can use!	
Visit our website at <a href="http://www.madison.kyschools.us/staff/marks.kenner/">http://www.madison.kyschools.us/staff/marks.kenner/</a>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Light Frame Construction I (Formerly Floor and Wall Framing)</b>	<b>5123 (460212)</b>
Increase your skills from Introduction to Carpentry. In this class we build houses. We've built all of the walls for 8 Habitat for Humanity houses in our shop in the Philips Building across from Madison Central. We concentrate on the math and building codes required to build safe, sellable houses and then build them! See pictures on our website at <a href="http://madison.kyschools.us/staff/marks.kenner/">http://madison.kyschools.us/staff/marks.kenner/</a>	
If you hope to go into business for yourself after high school or college and will be involved in any type of building or remodeling this class will give you the knowledge you need to avoid costly mistakes. Even if you never intend to make a living building, you will live in a house. Learn the skills necessary to build or remodel it yourself and save money! Get the skills necessary to have a fun summer job outside on a jobsite instead of filling burgers! Pay can range from \$8.00 to \$23.00 per hour based on knowledge and experience.	
<b>Prerequisite: Students must have successfully completed Introduction to Construction Carpentry.</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>

**Light Frame Construction II (Formerly Ceiling and Roof Framing) 5124 (460213)**  
 Add to your construction knowledge gained in Introduction to Carpentry and Floor and Wall Framing. Learn to design, estimate cost, build roofs and repair storm damage. You may not make a living doing this but sometime in your life you will have to do it or hire someone to do it. 40% class time / 60% HAMMER TIME!!!!  
 You will be cutting and installing ceiling joists, rafters, roof decking, shingles and metal roofing materials.  
**Prerequisite: Students must have successfully completed Introduction to Construction Carpentry.**  
**Suggested Grade Level: 10-12 Credit: 1**

**CAD/DRAFTING/GIS**

**Basic Drafting 1 5164 (480111)**  
 Introduces students to the principles and techniques of standard technical drawing as used by engineers, architects and other construction and manufacturing trades. Traditional manual drafting basics are taught with special emphasis on freehand lettering, geometric construction, using and maintaining equipment, one-view drawings, beginning multiview drawing and dimensioning. Prerequisites: Must be a Sophomore, Junior or Senior  
**Suggested Grade Level: 10 - 12 Credit: 1**

**Engineering Graphics (Basic Drafting 2) 5162 (480113)**  
 In **Engineering Graphics (Basic Drafting 2)** Students begin developing drafting techniques and skill in the areas of multiview, section views, basic dimensioning, pictorial drawing and auxiliary view drawings. Technical drawings will be produced on standard media using both traditional drafting equipment and the currently used CAD – 3D modeling software.  
**Prerequisite: Basic Drafting 1 (480111)**  
**Suggested Grade Level: 10 - 12 Credit: 1**

**CAD 1 - Computer Aided Drafting 1 5159 (480110)**  
 In CAD I students will utilize the principles learned in Basic Drafting 1 & 2 to produce high quality technical drawings, like those produced by professional architects and engineers. Using the CAD system and software (Autodesk Inventor R11), students will learn the basics of 2D and 3D drawing and entity creation. Emphasis will be placed on learning commands, command sequences, file management, and entity manipulation. Topics will include 3D model creation, multiview, dimensioning, sectional views, and isometric views.  
**Prerequisite: Basic Drafting 1 (480111)**  
**Suggested Grade Level: 10-12 Credit: 1**

**CAD 2 - Computer Aided Drafting 2 5166 (480112)**  
 In CAD II students will develop skill using basic Autodesk Inventor (R11) features to produce 3D models and the subsequent creation of multiviews, advanced dimensioning, section views, pictorials, and auxiliary view drawings in the 2D environment. Emphasis will be placed on skill development, problem solving, and applying ANSI standards.  
**Prerequisite: CAD 1 (480110)**  
**Suggested Grade Level: 10-12 Credit: 1**

**CAD 3 - Computer Aided Drafting 3 5340 (470922)**  
 CAD III is intended for serious students pursuing careers in Drafting, Construction, Engineering, Architecture, Graphic Arts or Technical Illustration. Students will develop their CAD skills by using AutoCAD, Inventor, and Autodesk Revit to solve engineering problems and produce professional quality 3D models, assemblies and working drawings. Emphasis on Advanced dimensioning principles and practices. Students will learn to apply precision tolerancing, geometric dimensioning, and manufacturing symbols as they produce advanced 3d models, assemblies, and architectural drawings.  
**Prerequisite: CAD 2 (480112)**  
**Suggested Grade Level: 11-12 Credit: 1**

**Introduction to GIS (Geographic Information Systems) 5488 (110401)**  
**Course Description:** This course introduces students to Geographic Information Systems (GIS), which utilizes software, hardware and data to **create maps** for the manipulation, analysis, and display of information that is tied to a geographic location. Topics include data structure, acquisition, integration and manipulation of spatial data. Through practical exercises in GIS students will use scientific and technical methods of inquiry to analyze tabular and spatial data for geographic trends, patterns and relationships. We will also gather data locally for a GPS and GIS exercise in the field.  
**Required Grade Level: 11-12 Credit: 1**

**GIS Software Tools 5497 (110402)**  
 GIS Extensions are software models that plug into the core product to deliver powerful added functionality. This class introduces some of the most popular advanced extensions used to network analysis, spatial analysis, and 3D Analysis  
**Prerequisites: Intro to GIS**  
**Suggested Grade Level: 11-12 Credit: 1**

**Introduction to Database Design 5499 (110211)**  
 This course introduces the standards for designing relational databases. Design criteria include first, second, and third normal forms to eliminate modification anomalies. Discussions review the capabilities of three major types of data models –hierarchical, network, and relational – as they apply to hypothetical sets of data objects. Experiences include the creation of logical design and translation into a physical database using the relational model. Interaction with the physical database will be conducted through a graphical interface and Query-by-example.  
**Prerequisites: Intro to GIS**  
**Suggested Grade Level: 11-12 Credit: 1**

## ELECTRICAL TECHNOLOGY

<b>Sustainable Energy</b> This course examines the sustainability of various energy resources. An overview of energy technology, energy resources, and emerging future energy technologies coupled with our energy use will bring into context the strengths and weaknesses of different energy methodologies in developing a working concept of sustainable energy. <b>Suggested Grade Level: 9-12</b>	<b>4604 (460334)</b>  <b>Credit: 1</b>
<b>Renewable Energy Systems</b> This course examines the need for alternative and renewable energy resources. This class is designed to promote the student's awareness, understanding and responsibility to search for technologies that will contribute to the sustainability of energy in our present and future societies. The object of this course is to take a more in-depth look at renewable energy forms and the replacement of fossil fuels in our society. Through wind, solar, and biomass this class will focus on live projects and scientific studies and comparisons of feasibility. <b>Suggested Grade Level: 9-12</b>	<b>4605 (460335)</b>  <b>Credit: 1</b>
<b>Electrical Construction I</b> This class involves wiring in the residential field. Students will be taught how a house is wired from the rough in phase to the completion of the home. Students will learn how to choose the correct materials to wire a house by National Electric Code standards. <b>Suggested Grade Level: 10-12</b>	<b>5260 (460312)</b>  <b>Credit: 1</b>
<b>Basic Troubleshooting</b> This course explores the science of troubleshooting and the importance of proper maintenance procedures; how to work well with others, aids in communication, and trade responsibilities; examines actual troubleshooting techniques, aids in troubleshooting, and how to use schematics and symbols; focuses on specific maintenance tasks such as solving mechanical and electrical problems, breakdown maintenance, and the how's and why's of planned maintenance. <b>Suggested Grade Level: 10-12</b>	<b>4707 (470317)</b>  <b>Credit: .5</b>
<b>National Electrical Code</b> Emphasizes the importance of the National Electrical Code as it applies to electrical installations, electrical safety issues, prevention of fire due to the use of electrical energy, prevention of loss of life and property from the hazards that might arise from the use of electrical energy, and proper selection of electrical equipment for hazardous and non-hazardous environments. A learning resource in the preparation for electrical licensing examinations. <b>Suggested Grade Level: 10 – 12</b>	<b>4603 (460333)</b>  <b>Credit: .5</b>
<b>Electrical Construction II</b> This class involves wiring in the commercial field. Students will be taught how a commercial building such as an office or business is wired from the rough in phase to the completion of the building. Students will learn how to choose the correct materials to wire a commercial building by National Electric Code standards. <b>Prerequisite – Electrical Construction I</b> <b>Suggested Grade Level: 10 – 12</b>	<b>5259 (460313)</b>  <b>Credit: 1</b>
<b>Circuits I</b> This class is an introduction to basic theory of DC and AC circuits. Students will learn how to build basic circuits and troubleshoot them using multi meters and Ohm's law. Students will also learn how to solder and the proper use and care of basic hand tools used in the electrical field. <b>Suggested Grade Level: 10 – 12</b>	<b>5332 (460315)</b>  <b>Credit: 1</b>

## HEALTH SCIENCES

<b>Health Sciences Introduction (Principles of Health Science)</b> This course is an orientation to the health care cluster consisting of four career majors: Nursing, Medicine, Dentistry and Allied Health. It is also designed to develop and enhance an understanding of the roles and responsibilities of each career major area. Communication, study and leadership skills will be emphasized as the student learns about the health care industry, health care economics and career opportunities available as well as examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. Medical Terminology will be integrated throughout the course. Upon successful completion of this course, the student will be able to focus on a career major path and make informed decisions regarding choices for continuing education and/or employment. Job-seeking and job-retention skills are taught through the development of resumes and job search materials. Maximum benefit is received if this course is taken in the latter part of the student's course work. This course addresses the Kentucky Learner Goals and Academic Expectations, Core Content for Assessment and includes core components from the National Health Care Skill Standards. <b>Suggested Grade Level: 9-12</b>	<b>5314 (170111)</b>  <b>Credit: 1</b>
<b>Health and Wellness (Human Growth &amp; Development)</b> Course focus is promotion of health through assessment of individuals' growth and development across the life span. Consideration is given to the family, cultural, environmental, spiritual, and genetic influences when meeting basic human needs. <b>Prerequisites: None</b> <b>Suggested Grade Level: 10-12</b>	<b>5304 (170172)</b>  <b>Credit: .5</b>
<b>Emergency Procedures (CPR &amp; First Aid)</b> Safety and First Aid is a course designed to teach current strategies relative to designated emergency situations as put forth by the National Safety Council or American Red Cross. The National Safety Council or American Red Cross standardized course qualifies a student for certification in safety and first aid. Cardiopulmonary resuscitation will be incorporated which is a course designed to teach current emergency techniques relative to cardiac and/or respiratory arrest, as put forth by the American Heart Association, National Safety Council or American Red Cross. The American Heart Association, National Safety Council or American Red Cross standardized course qualifies a student for certification of cardiopulmonary resuscitation. <b>Suggested Grade Level: 10-12</b>	<b>5302 (170141)</b>  <b>Credit: .5</b>

<b>Medical Terminology</b>	<b>5303 (170131)</b>
An overview designed of the basic techniques of medical work building is provided. Once these techniques have been developed, they can readily be applied to acquire an extensive medical vocabulary. Emphasis is on basic anatomical, physiological, pathology, diagnostic procedures, and pharmacological terms.	
<b>Prerequisite: None</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5</b>
<b>Medicaid Nurse Aide</b>	<b>5305 (170631)</b>
This course is designed to provide knowledge and skills for nurse aids to assume the role and responsibility required in long term care. The focus of this course is communication, infection control, safety, residents' rights, and basic nursing skills. This course is strongly recommended for any student considering a career in nursing.	
<b>Prerequisite: Prior Approval of Instructor, Health Science Introduction strongly recommended.</b>	
<b>Suggested Grade Level: 12</b>	<b>Credits: 2</b>
<b>Basic Anatomy and Physiology</b>	<b>5315 (170162)</b>
Basic Anatomy and Physiology is designed to provide knowledge of the structure and function of the human body with an emphasis on normalcy. The course includes interaction of all body systems in maintaining homeostasis and promotes an understanding of the basic human needs necessary for health maintenance. Explain the basic principles of inorganic and organic chemistry as they apply to physiological processes.	
<b>Prerequisite: None</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Infection Control (Microbiology)</b>	<b>5307 (170640)</b>
This course is designed to promote an understanding of the effects of microorganisms on the human body. The study includes standard precautions necessary for health maintenance and infection control. The focus is on reduction of diseases that interfere with basic human needs.	
<b>Prerequisite: None</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5</b>

#### MACHINE TOOL TECHNOLOGY

<b>Basic Machining (Formally Machine Tool A)</b>	<b>5376 (470913)</b>
This course provides the basic principles needed for a solid foundation in which to build on in Machine Tool Technology. Students will learn the use of metalworking shop equipment such as metal cutting saws, grinders, engine lathes and mills. Students will learn materials characteristics, tooling, and precision measurement	
<b>Prerequisite: None</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Intermediate Machine Shop (Formally Machine Tool B)</b>	<b>5377 (470914)</b>
This course is designed to provide the student with intermediate skill development building on skills learned in Basic Machine Shop. Utilizing machinery, students will be able to perform more advanced machining operations.	
<b>Prerequisite: Basic Machining (Formally Machine Tool A)</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>CNC Machining</b>	<b>5381 (470915)</b>
This course introduces the student to CNC format. Students will learn process planning in the operation of Computer Numerical Controlled equipment, from the programming stage to the operation of CNC mills and lathes. Students will program and operate the CNC machinery using different types of programming procedures which include Mastercam, manual and conversational type programming	
<b>Prerequisite: None</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Specialized Machining</b>	<b>5375 (470979)</b>
This course is designed for students who wish to enhance their skill level in a specific area of machining.	
<b>Prerequisite: Instructor's Approval</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Co-op 1</b>	<b>5367 (909101)</b>
Cooperative Education provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program receive compensation for their work.	
<b>Prerequisites: Basic Machining and Intermediate Machine Shop</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>

#### WELDING

<b>Cutting Process</b>	<b>5378 (480537)</b>
This course is designed to teach students cutting process safety, how to setup and troubleshoot cutting equipment. This course will also teach students the different cutting processes oxy-fuel, plasma arc cutting, air carbon arc, shielded metal arc cutting and mechanical cutting process.	
<b>Prerequisite: Instructor's Approval</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Shielded Metal ARC Welding (SMAW)</b>	<b>5543 (480521)</b>
This course is designed to teach students the identification, inspection, and maintenance of SMAW electrodes: principles of SMAW; the effects of variables on the SMAW process to weld plate and pipe; and metallurgy.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>

<b>Oxy-Fuel Systems</b>	<b>5054 (480523)</b>
This course is designed to teach students proper oxy-fuel safety, inspection and maintenance of oxy-fuel equipment. The course will also teach students the basic skills need for oxy-fuel cutting of various thicknesses of metal.	
<b>Prerequisite: Instructor's Approval</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Gas Metal ARC Welding</b>	<b>5559 (480522)</b>
This course is designed to teach students the identification, inspection, and maintenance of GMAW machines: identification, selection and storage of GMAW electrodes; principles of GMAW; and the effects of variables on the GMAW process. Theory and applications of related processes such as FCAW and SAW and metallurgy are also included.	
<b>Prerequisite: Instructor's Approval</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Gas Tungsten ARC Welding</b>	<b>5558 (480525)</b>
This course is designed to teach students the identification, inspection, and maintenance of GTAW machines; identification, selection and storage of GTAW electrodes; principles of GTAW; the effect of variables on the GTAW process; and metallurgy. This course also teaches the theory and application of Plasma Arc Cutting.	
<b>Prerequisite: Instructor's Approval</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Blueprint Reading for Welders</b>	<b>5550 (480510)</b>
This course provides students with practice fabricating from a blueprint. Students will read and fabricate from detail prints, control distortion during fabrication, and follow the proper sequence in welding a fabricated part. Students use welding symbols, study weld sizes, strengths.	
<b>Prerequisite: Must have taken another Welding Course offered by KY Tech.</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>

#### **BUSINESS & OFFICE TECHNOLOGY**

<b>Accounting I (Financial Recordkeeping)</b>	<b>5610 (070124)</b>
Students are introduced to accounting terminology and general theoretical principles. The major focus of the course is on the accounting cycle and the communication of financial information to decision makers. Can be taken as 4 <sup>th</sup> math credit.	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Business Management</b>	<b>5648 (060410)</b>
This course is specifically designed to help students who aspire to become business owners, business managers, or employees in any career or field. This course introduces the concepts and principles of effective business management and includes forms of business ownership, typical business organizational structures, relationship of business to the community, and the effect of government regulations on businesses. Problem solving activities and case studies are used in researching the position of the manager in typical business. Business simulations are conducted throughout the year to reinforce concepts.	
<b>Suggested Grade Level: 9 - 12</b>	<b>Credit: 1</b>
<b>Business Management – Coop 1</b>	<b>5275 (909101)</b>
Business Management Internship Enhances the student's transition from class to the world of work by providing unpaid work experience in an off-campus setting, which utilizes the skills, required to achieve the student's occupational goal.	
<b>Prerequisite: Business Management – 060410</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Office Technology – Coop 1</b>	<b>5472 (909101)</b>
This course enhances the student's transition from class to the world of work by providing paid work experience which utilizes the skills required to achieve the student's occupational goal.	
<b>Prerequisite: Computer Applications 1 (060112), Office Administration (070610)</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>Business Math - Business Calculations for the Office Professional</b>	<b>2747 (060172)</b>
This course is designed to study the principles involved in the field of business with the application of algebra skills. Students will apply skills required for the performance of business tasks including banking, buying and selling, financial records, payroll, personal income taxes, loans, investments and other business applications. Students will have the opportunity to use spreadsheet software, 10-key calculators and linear programming for figuring and tracking solutions to problems. <b>NOTE: NCAA or Kentucky State Department does not recognize Business Math as a pre-college curriculum course.</b>	
<b>Prerequisite: Geometry</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Computer Applications I / Keyboarding</b>	<b>5365 (060112)</b>
This course is designed to develop skill in operating a keyboard by touch. This course provides students an opportunity to develop skills through the completion of projects and performance based activities. The experiences apply and reinforce competencies required for employment in the modern business office and success in post secondary pursuits. In addition, the impact of computers on society, and ethical issues are presented. Students use microcomputers and application software, including word-processing, database, spreadsheets, and the Internet to prepare documents and reports.	
<b>Suggested Grade Level: 9 – 12</b>	<b>Credit: 1</b>
<b>Advanced Computer Applications</b>	<b>5615 (070612)</b>
This course is specifically designed to help students who would like to achieve MOS (Microsoft Office Specialist) certification (as required by several Universities). Students use a personal computer to further develop skills in operating word processing, database, spreadsheet, and presentation software. Emphasis will be placed on performance to identify and utilize the requirements, capabilities, limitations, and applications of these different software packages.	
<b>Prerequisite: Grade of C or higher in Computer Applications I. (060112)</b>	
<b>Suggested Grade Level: 10 – 12</b>	<b>Credit: 1</b>

<b>Office Administration</b>	<b>5471 (070610)</b>
This course includes a study of the practices and procedures of current office concepts with emphasis given to the electronic office. Areas covered in the course include job application procedures, human relations in the office, business ethics, decision making, skills, travel and meeting arrangements, time and stress management, incoming/outgoing mail processes and telephone procedures. The second half of this course will include special topics to expand course offerings as well as address local office issues as new technology is developed. Topics vary from semester to semester at the discretion of the instructor.	
<b>Prerequisite: Computer Applications 1 – 060112</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: .5</b>
<b>Personal Finance</b>	<b>5010 (060170)</b>
Information needed to make intelligent choices and take effective action in the management of personal resources is provided. Topics include financial planning, buying, and borrowing, saving, budgeting, investing, and insurance and taxes.	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: .5</b>
<b>Word Processing</b>	<b>5468 (060142)</b>
This course provides experience in word processing using industry standard software. Applications include the preparation of business documents using advanced word processing features. Concepts, capabilities, procedures, and legal responsibilities of word and information processing are applied. Simulated and real projects may be used for problem solving and business document preparation.	
<b>Prerequisite: Computer Applications 1 – (060112)</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Workplace Principles</b>	<b>5345 (060197)</b>
This course examines the changing workforce and the skills needed to adapt to constantly changing demands and expectations. The course includes, but is not limited to problem solving, teamwork, time management, and self-management skills. Job-seeking and job-retention skills are taught through the development of resumes and job search materials. Maximum benefit is received if this course is taken in the latter part of the student's course work.	
<b>This course is required for all students completing a Kentucky Tech Certificate</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: .5</b>
<b>Leadership Dynamics</b>	<b>5597 (060196)</b>
For students approaching the major career transition from school to work either as a graduating student or as a cooperative education student. This course defines and develops concepts of positive work habits, effective human relations skills, leadership skills, positive personality traits, professional image, and proper telephone techniques.	
<b>Prerequisite: Recommended that student has completed a keyboarding course (or obtain Instructor's approval)</b>	
<b>Suggested Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Practicum 1</b>	<b>5466 (909201)</b>
Provides supervised on-the-job work experience related to the students educational objectives. Students participating in the practicum do not receive compensation.	
<b>Prerequisite: OST100 or Consent of Instructor</b>	
<b>Suggested Grade Level: 12</b>	<b>Credit: 1</b>
<b>MARKETING TECHNOLOGY</b>	
<b>Principles of Marketing (Introduction to Marketing)</b>	<b>5750 (080716)</b>
This course provides a basic foundation for further study in marketing. Students study economic functions at work in the marketplace, marketing functions including purchasing, pricing, and distribution function. This course is based on the business and marketing core that includes communication skills, economics, financial analysis, and promotion. Both marketing and employment skills learned will improve and increase the change of successful transition into the world of work.	
<b>Suggested Grade Level: 9-12</b>	<b>Credit: 1</b>
<b>Fashion Marketing</b>	<b>5398 (080111)</b>
This course is a specialized course that provides instruction in marketing of apparel and accessories. This course is based upon the business and marketing core that includes communication skills, economics, operations, professional development, promotion, selling, distribution and product/service management. The instruction includes basic fashion and marketing basics, the use of design and color, promotions, visual merchandising and career opportunities.	
<b>Prerequisite: Successful completion of Principles of Marketing</b>	
<b>Suggested Grade Level: 10-12</b>	<b>Credit: 1</b>
<b>Advanced Marketing</b>	<b>5759 (080717)</b>
This course is designed to enhance marketing developed in the marketing prerequisite courses and to learn advanced marketing skills in such areas as advertising, customer service, supervision, employee/employer relations, etc., for a wide range of marketing careers. It offers the opportunity for developing advanced skills that are appropriate for careers in sports marketing, hospitality and tourism, general marketing, retailing, hotel/motel, etc.	
<b>Prerequisite: Principles of Marketing</b>	
<b>Required Grade Level: 11-12</b>	<b>Credit: 1</b>
<b>Marketing Co-op (Seniors Only)</b>	<b>5403 (909101)</b>
Cooperative Education provides supervised on-the-job work experience related to the student's educational objectives. Students participating in the Cooperative Education program receive compensation for their work.	
<b>Prerequisite: Consent of Instructor</b>	
<b>Required Grade Level: 12</b>	<b>Credit: 1 - 3</b>

**Financial Services I****5008 (060311)**

This course involves operating a student financial center in cooperation with a sponsoring bank. The sponsoring bank provides an employee who works as a consultant to the students. Banking and financial concepts are applied as students assume various positions in the bank. Hands-on experience will be provided with the management by students of a student financial center (TRIBAL TRUST) offering accounts for school personnel and students. Community Trust Bank serves as a sponsor / consultant to the students. Banking and financial concepts are applied as students assume various positions in the bank.

**Prerequisite: Successful completion of Principles of Marketing****Suggested Grade Level: 10-12****Credit: 1****Financial Services II****5723 (060351)**

This course is a continuation of student financial center operation in cooperation with a sponsoring bank. The sponsoring bank continues to provide an employee who works as a consultant to the students. Banking and financial concepts are applied as students assume various positions in the bank. Students will be involved in public relations for the Banking Center at MCHS, as well as independent study assignments involving the economy and financial matters.

**Prerequisite: Successful completion of Financial Services I****Suggested Grade Level: 11-12****Credit: 1****PRACTICUM WORK-BASED EDUCATION****Practicum Work-Based Education****8825**

The practicum provides supervised on the job work experience related to the student's educational objectives. Students participating in the practicum do not receive compensation. Students may receive up to two credits per semester. This program is only open to seniors that meet the program guidelines. The program objectives include gaining awareness and opportunity in the career interest area; integrating classroom studies with work experience; receive exposure to facilities and equipment unavailable in a classroom setting; increase employability potential after graduation; and to utilize community resources to help students explore career choices. Students must apply to the program, have a 3.0 GPA, have the recommendation of two teachers and one administrator, and must be on track for graduation. Students and parents must sign contractual agreements and participate in the program orientation meeting.

**Prerequisite: Meet all requirements of the program to be accepted.****Suggested Grade Level: 12****Credit: 1-3****DUAL CREDIT COURSES THROUGH EASTERN KENTUCKY UNIVERSITY**

**Students must successfully complete the EKU admissions process to qualify. ACT scores must be on file with EKU at the time of application. Minimum ACT score of 21 (18 in English, 19 in Mathematics, and 20 in Reading) and a 3.0 cumulative GPA. One free class per semester for Juniors and Seniors. A second class per semester for Seniors only with half tuition for ACT composite of 21-23 or free tuition for ACT composite of 24 and above. Students will be held responsible for the cost of textbooks, parking permits and any associated course fees. For more specific information, please contact your Guidance Counselor.**

**ENG 101 & 102 (English Composition I & II)****2309**

A writing course reviewing sentence basics and methods of development; emphasizing style, organization, coherence, and persuasion in written discourse; extensive practice in composition for different purposes and audiences; study and practice to improve reading. The second half of the course refines general composition skills; emphasis on expository and argumentative writing, including researched, documented papers and reports; study of research sources and methods, with emphasis on analytical reading. Students who pass the courses receive 1 credit at the high school and 6 semester hours of credit at Eastern Kentucky University. Both courses must be taken to get a full credit of English at MCHS. This course will be taught on Madison Central's campus.

**Suggested Grade Level: 11-12****Credit: 1****MAT 107 & 109 (College Algebra & Precalculus)****2799**

First semester - Real and complex numbers, integer and rational exponents, polynomial and rational equations and inequalities, graphs of functions and relations, exponential and logarithmic functions, systems of equations, matrices. Second semester - Polynomial, rational, exponential, logarithmic, and trigonometric functions and inverses. Sequences and series, systems of linear and nonlinear equations and inequalities, the complex number system, vectors, the binomial theorem, mathematical induction, and conic sections. Use of graphing calculators. This is a dual credit class offered by Eastern Kentucky University and Madison Central. Students who pass the course receive 1 credit at the high school for Precalculus and 6 semester hours of credit at Eastern Kentucky University. This course will be taught on Madison Central's campus.

**Prerequisite: A minimum ACT score in mathematics of 22.****Suggested Grade Level: 11-12****Credit: 1**

**For more information about Dual Credit courses and for a complete list of the courses currently approved as Dual Credit General Education Courses through the EKU NOW program please go to the following websites:**

[www.eku.edu/now](http://www.eku.edu/now)

[http://www.advising.eku.edu/advising\\_handbook/forms/gen\\_ed\\_worksheet\\_new.pdf/](http://www.advising.eku.edu/advising_handbook/forms/gen_ed_worksheet_new.pdf/)