Williamstown High School

Course Descriptions
and
Graduation Requirements
2013-2014
Purpose
This handbook of course descriptions and graduation requirements was compiled by the 2013-2014 Williamstown High School Faculty for the purpose of helping students make more knowledgeable and competent course selections during their high school career. Each student is advised to make course selections with the help of their parents, teacher mentors, and guidance counselor. Course selections should be based on past academic performance in school and career goals—not on the basis of what courses a friend has chosen. Courses should be chosen with extreme care.

Williamstown Jr./Sr. High School Mission Statement
We the staff of Williamstown Jr./Sr. High School believe our mission is to establish a secure environment and create a strong foundation for life-long learning by guiding, nurturing, and challenging each student to reach their potential in a rapidly changing and complex technical society.

We believe…
All students have the potential to learn at high levels.
We have the responsibility to provide the environment for students to reach that potential.
We should help foster a love of life-long learning.
Students and staff should feel secure in the school environment.

Course Scheduling Process
In late January or early February of each school year, students will be given a Course Request form that is appropriate to his or her grade level. After reviewing course options and discussing the courses the student wishes to take for the upcoming school year, the student and parent/guardian must sign the form and return it to the guidance office by the due date listed on the form. If the form is not turned in or is not turned in on the designated due date, the guidance counselor will schedule students into classes based upon availability and credits needed. Although students are given the course request form, this does not guarantee that all students will be enrolled in all desired classes.

Graduation Requirements
The following graduation requirements are separated into two categories: Minimum High School Graduation Requirements and Pre-College Curriculum Requirements. All WHS students are encouraged to follow the Pre-College Curriculum Requirements due to the rigor associated with such a program.

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>Minimum High School Graduation Requirements</th>
<th>Pre-college Curriculum Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CREDITS</td>
<td>COURSES</td>
</tr>
<tr>
<td>Language Arts</td>
<td>4</td>
<td>English I, II, III, IV (To include the content strands of reading, writing, speaking, listening, observing, inquiry, conventions, analysis, and using technology as a communication tool. Language arts shall be taken each year of high</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>Requirements</td>
<td>Credits</td>
<td>Social Studies</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Mathemati cs</td>
<td>3</td>
<td>Algebra I, Geometry and Algebra II (An integrated, applied, interdisciplinary or technical/occupational course that prepares a student for a career path based on the student's Individual Learning Plan may be substituted for a traditional Algebra I, Geometry or Algebra II course on an individual student basis if the course meets the content standards in the program of studies. Pre-Algebra shall not be counted as one of the three required Mathematics credits for high school graduation but may be counted as an elective.) Mathematics shall be taken each year of high school. If a student does not meet the college readiness benchmarks for mathematics (19), the student shall take a mathematics transitional course or intervention, which is monitored to address remediation needs, before exiting high school.</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
<td>Credits shall incorporate lab-based scientific investigation experiences and include the content strands of biological science, physical science, earth and space science, and unifying concepts.</td>
</tr>
<tr>
<td>Health</td>
<td>1/2</td>
<td>Credit to include the content strands of individual well-being, consumer decision, personal wellness, mental wellness, and community services</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1/2</td>
<td>Credit to include the content strands of personal wellness, psychomotor, and lifetime activity</td>
</tr>
<tr>
<td>Visual and Performing Arts</td>
<td>1</td>
<td>History and appreciation of visual and performing arts or a performing arts course which incorporates such content (Credit to include the content strands of arts, dance, music, theatre, and visual arts or a standards-based specialized arts course based on the student's Individual Learning Plan.)</td>
</tr>
<tr>
<td>World Language</td>
<td>2</td>
<td>2 units of a single world language or demonstration of a world language proficiency</td>
</tr>
<tr>
<td>Electives</td>
<td>7</td>
<td>Academic and career interest</td>
</tr>
</tbody>
</table>
standards-based learning experiences (to include four (4) standards-based learning experiences in an academic or career interest based on the student's Individual Learning Plan; and Demonstrated performance based competency in technology.)

<table>
<thead>
<tr>
<th>Technology</th>
<th>0</th>
<th>Demonstrated performance-based competency in technology</th>
<th>0</th>
<th>Same as Minimum High School Graduation Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>22</td>
<td></td>
<td>24</td>
<td></td>
</tr>
</tbody>
</table>

*Students must reach 100% completion on the ILP in order to receive a diploma.
*Students must complete the Senior Exit Project in order to participate in graduation ceremony.

Instructions for Using this Handbook
Each high school student will be given one copy of this handbook. The student is to keep this handbook for reference purposes throughout his/her high school years. A copy is also available on the Counseling & Guidance website, which can be accessed from the school’s home page.
All of the courses in this handbook are not on the schedule every year because some are offered on alternate years. If there is sufficient demand for a course, the course is offered. A student should have an opportunity during his/her high school years to take any course listed in this handbook if the course selected is in sufficient demand/All students in the Williamstown High School are required to be enrolled in six (6) periods of class per day. Williamstown has no provisions for part-time students.
Five (5) full credits are required for a student to be designated as a sophomore.
Ten (10) full credits are required for a student to be designated as a junior.
Sixteen (16) full credits are required for a student to be designated as a senior.
In addition, according to the State Board of Education requirements, by the end of grade ten (10), students must have taken the following courses: 2 units of Language Arts, 2 units of Mathematics, and 2 units of Science.
Also, college bound students are encouraged to take as part of their elective courses additional classes in Math, Science, Foreign Language, Arts, Social Studies, and Computer Literacy.

New Course Approval & Implementation
In December or January of each school year, academic departments will be asked for input on course offerings for the upcoming school year. Each teacher will review the courses they plan to teach or have previously taught, and they will submit any changes to the guidance counselor. Each list will include the name of the class, a description of the course, and any prerequisites or requirements needed to take the course. If a new course is approved by the principal, the guidance counselor will add the course and its description to this handbook for student and parent/guardian reference.

Weighted Classes
When figuring grade point standing and student ranking in class, the following scale will be used.
*The Site-Based Decision Making Council (SBDM) approved the following weights to be added to honors, advanced, and Advanced Placement courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANATOMY &amp; PHYSIOLOGY</td>
<td>1.05</td>
</tr>
<tr>
<td>BIOLOGY II</td>
<td>1.05</td>
</tr>
<tr>
<td>CHEMISTRY I/II</td>
<td>1.05</td>
</tr>
<tr>
<td>HONORS ALGEBRA II</td>
<td>1.05</td>
</tr>
<tr>
<td>HONORS GEOMETRY</td>
<td>1.05</td>
</tr>
<tr>
<td>HONORS ENGLISH 9 &amp; 10</td>
<td>1.05</td>
</tr>
<tr>
<td>Course</td>
<td>Credit</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>ONLINE HIGH SCHOOL COURSES</td>
<td>1.05</td>
</tr>
<tr>
<td>PHYSICS</td>
<td>1.05</td>
</tr>
<tr>
<td>PRE-CALCULUS</td>
<td>1.05</td>
</tr>
<tr>
<td>SPANISH III</td>
<td>1.05</td>
</tr>
<tr>
<td>AP ENGLISH</td>
<td>1.10</td>
</tr>
<tr>
<td>AP SPANISH IV</td>
<td>1.10</td>
</tr>
<tr>
<td>AP U.S. HISTORY</td>
<td>1.10</td>
</tr>
<tr>
<td>AP CALCULUS</td>
<td>1.10</td>
</tr>
<tr>
<td>AP BIOLOGY</td>
<td>1.10</td>
</tr>
<tr>
<td>ALL APPROVED COLLEGE-LEVEL COURSES/DUAL CREDIT COURSES</td>
<td>1.10</td>
</tr>
<tr>
<td>ANY APPROVED ADVANCED OR HONORS COURSES NOT LISTED ABOVE</td>
<td>1.05</td>
</tr>
</tbody>
</table>
Agricultural Education

Agriscience Interdisciplinary
Grade levels: 9-10
Prerequisite: This course is for first-year agriculture students.
Credit: 1
Agriscience introduces the scientific agricultural approach to animal science and selection, and plant and land science. Agricultural career opportunities will be emphasized in each class. Laboratory experiences relating to basic and current technology will be part of the program. Utilizing the appropriate computer applications may enhance the content. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program and keep appropriate records.

Equine Science
Grade levels: 11-12
Prerequisite: Must have taken Agriscience.
Credit: 1
Equine science develops knowledge and skill pertaining to breed identification and selection, anatomy, physiology, nutrition, genetics and reproductive management, training principles, grooming, health disease, parasite control and sanitation practices. Content may be enhanced with appropriate computer applications. Leadership development will be provided through FFA.

Animal Science—Murray State University
Grade levels: 11-12
Prerequisite: Consent of Instructor/Murray State University Requirements
Credit: 1
Animal/Vet Science will be a dual credit course through Murray State University. In the fall semester students will participate in Murray State University’s online AGR 100 Animal Science course, and in the spring Murray State University’s online AGR 182 Introduction to Vet Science course. Students wishing to recieve the dual credit will be asked to pay a one-time $30 registration fee and a $150.00 course fee for each course they wish to take. The courses will be taught during regular school hours but will require student access to the internet to utilize BlackBoard through Murray State. Students must also meet regular Murray State admissions requirements. Please see Mackenzie Wright or email Brandon Wilson from Murray State Univeristy at bwilson18@murraystate.edu for more information.

Vet Science—Murray State University
Grade levels: 11-12
Prerequisite: Consent of Instructor/Murray State University Requirements
Credit: 1
Animal/Vet Science will be a dual credit course through Murray State University. In the fall semester students will participate in Murray State University’s online AGR 100 Animal Science course, and in the spring Murray State University’s online AGR 182 Introduction to Vet Science course. Students wishing to recieve the dual credit will be asked to pay a one-time $30 registration fee and a $150.00 course fee for each course they wish to take. The courses will be taught during regular school hours but will require student access to the internet to utilize BlackBoard through Murray State. Students must also meet regular Murray State admissions requirements. Please see Mackenzie Wright or email Brandon Wilson from Murray State Univeristy at bwilson18@murraystate.edu for more information.
Arts & Humanities

Art Portfolio
Grade levels: 11-12
Prerequisite: "B" Average in Art I & II and Teacher Approval
Credit: 1
Must have completed Art I & II with a “B” average or better. Show ability to be self motivated and stay on task. Must have the teacher's approval and present a portfolio of work. This class is designed to help serious art students develop and produce a portfolio of work to use for college entrance into an art program. This portfolio is submitted as a final grade.

General Art I
Grade levels: 9-12
Prerequisite: none
Credit: 1
This course is introductory and exploratory in nature. Units from both two-dimensional and three dimensional areas are included. Specific units are drawing, design, painting, lettering, printmaking, sculpture, ceramics, vanishing point drawing and communication media. Art criticism, art history and aesthetics are also considered. Approval of the Art teacher is not needed.

Art II
Grade levels: 10-12
Prerequisite: A “C” average in one full credit of General Art I.
Credit: 1
This course gives students an opportunity to advance to a higher level of understanding and skill development in the areas introduced in General Art I. Advanced topics and techniques will be the focus. Students will focus on quality and craftsmanship of their own work. Emphasis will also be placed on the development of a portfolio of their work.

Art III
Grade levels: 11-12
Prerequisite: "B" Average in Art I and Art II and Teacher Approval
Credit: 1
A detailed study of a specialized art area may be arranged by the art teacher upon specific requests. Must show examples of work. Must have the art teacher's approval. Must have a solid understanding of basic concepts and be self motivated. Students moving in from another school district must show examples of work and have the teacher's approval. Students will create work for public viewing.

Art IV
Grade level: 12
Prerequisite: Art I, II and III
Credit: 1
Independent coursework to be arranged with teacher. Student will focus on creating a portfolio of work that best shows the student's abilities. Focus would be placed on preparation to art in college or vocational school. Students moving into the district must show examples of work and must have teacher's approval. Students must create and display work for public viewing (in school and out of school).

Independent Study—Visual Art
Grade Level: 9 - 12
Credits: 1
Courses in Visual Arts - Independent Study, are often conducted with instructors or professional artists as mentors, and enable students to explore a particular art form in more detail and depth than other courses. Advancing skills, building confidence for professional showings or portfolio submission, and gaining experience in public performances or displays are emphasized. Career opportunities are explored.

Band
Grade Level: 9-12
Prerequisites: All students entering the high school instrumental music program are to have successfully completed a year of beginner band and two years of Jr. High training in the Williamstown Music program. Any exceptions to these requirements will be allowed only through the approval of the band director.
Credit 1
The High School instrumental program is an advanced continuation of skills learned through the Jr. High band. This includes more specific areas of pitch, tone, technique, rhythm, etc. The student will also be taught various marching techniques through the marching band. Students are also to further develop their understanding and appreciation of various musical styles, and develop self-discipline, respect and pride by working as a member of the organization.

Choral Music
Grade Levels: 9-12
Prerequisites: None
Credit: 1
This course teaches music through group performance. The choral groups study and perform a widely varied program of music literature. A natural outgrowth of this course is appropriate performance, festivals, and concerts.

History & Appreciation of Visual & Performing Arts
Grade Level 9-12
Prerequisites: None
Credit: 1
This course meets the requirements for graduation from high school. A study of the humanities through the arts (dance, drama, music, and visual art). Addresses the structures, humanities, purposes, creative processes and interrelationships of the visual and performing arts.

High School Chamber Choir
Grade Levels: 9-12
Prerequisites: Audition and Approval by Choral Director
Credit: 1
High School Chamber Choir is an advanced choral ensemble for students in grades 9 - 12 which studies high quality vocal literature. Advanced sight reading skills are also taught in this ensemble. This is a performing group which means performances are mandatory and necessary for the success of this group. Students in grades must audition and be accepted by the director in order to participate in this performing ensemble.

Humanities
Grade level: 9-12
Prerequisites: None
Credit: 1
This course explores Music, Dance, Theater and the Visual Arts.
**Business & Technology**

**Introduction to Business & Marketing**  
Grade level: 9-12  
Prerequisite: None  
Credit: 1  
This course establishes basic foundations for further study in business and marketing courses and provides essential information for making financial and economic decisions. Students learn about the fundamentals of the American free enterprise system and world economies; application of sound money management for personal and family finances; credit management; consumer rights and responsibilities; forms of business ownership; risk and insurance; and the importance of international trade.

**Computer Applications**  
Grade level: 9-12  
Prerequisite: None  
Credit: 1  
This course is to provide students with a comprehensive understanding of computer hardware, software, digital citizenship, and employability skills which develop abilities necessary to create computer-based projects in the workforce. It applies the Big Ideas from the Kentucky Technology Program of Studies, National Technology Standards, and The Secretary's Commission on Achieving Necessary Skills.

**Multimedia Publishing**  
Grade level: 9-12  
Prerequisite: Successful completion of Computer Applications course  
Credit: 1  
This hands-on course applies publishing and presentation concepts through the development of sophisticated business documents and projects. These documents include, but are not limited to, brochures, manuscripts, reports, programs, catalogs, newsletters, flyers, business forms, graphs, web pages, on-screen presentations, and video productions. Equipment such as scanners, digital cameras, video cameras, and color laser printers, may be utilized in creating the documents. Formatting, editing, page layout, and design concepts are taught. Distribution ready publication standards are applied to all projects. Students will develop communication skills, problem-solving techniques, cooperative learning, and interpersonal skills.

**Yearbook**  
Grade level: 9-12  
Prerequisite: A brief, written explanation of how you can contribute to the yearbook staff should be turned in to the instructor.  
Credit: 1  
Yearbook is designed as an independent study course, which allows yearbook staff to work collectively on producing a quality annual for the Jr./Sr. High School. The students will work within the guidelines of the objectives to provide equitable coverage to all students in grades 6-12 in the Williamstown Independent School System. This task will require quality work, dedication, organizational skills, attention to detail, promptness and serious time commitment. Students will work together from start to finish, laying out the publication, writing articles and taking pictures, learning the basic processes and vocabulary of printing and publication, and directory structures. Students will learn and use digital cameras, scanners, Photoshop, Pagemaker, and a variety of other software programs. Students will also use Webease publishing at [www.lifetouch.webease.com](http://www.lifetouch.webease.com). Students will also schedule, manage and distribute: ID cards, class, club and senior pictures. Students are required to take pictures each 9 weeks at after school activities. Students may also be required to come back in the summer time to finish pages for the yearbook.
English/Language Arts

**English I**
Grade Level: 9  
Prerequisites: None  
Credit: 1  
English I attempts to integrate the study of literature, language, composition, reference skills and oral communication. The student will study thematic units with literature, music, fine arts, and personal experience. The student will write paragraphs, themes, and various portfolio entries. In literature the student will study short stories, essays, poetry, drama, and selected novels.

**Honors English I**
Grade Level: 9  
Prerequisites: A "B" average in 8th Grade English & consent of instructor  
Credit: 1  
Honors English I attempts to integrate the study of literature, language, composition, reference skills and oral communication. The student will study thematic units with literature, music, fine arts, and personal experience. The student will write paragraphs, themes, and various portfolio entries. In literature the student will study short stories, essays, poetry, drama, and selected novels. This advanced class begins students' preparation for AP English IV.

**English II**
Grade Level: 10  
Prerequisites: None  
Credit: 1  
English II consists of the study of grammar, sentence structure, Mechanics, composition, oral communication, literature and reference skills. The student will study the standard usage of the English language. He will apply his study of usage in a variety of writing and speaking assignments. In literature the student will study short stories, essays, poetry, drama and selected novels.

**Honors English II**
Grade Level: 10  
Prerequisites: A "B" average in English I class & consent of instructor.  
Credit: 1  
Honors English II consists of the study of grammar, sentence structure, mechanics, composition, oral communication, literature and reference skills. Student will study the standard usage of the English language. Students will apply their study of usage in a variety of writing and speaking assignments. In literature, the student will study short stories, essays, poetry, drama and selected novels. This advanced-level course helps prepare students for AP English III and IV.

**English III**
Grade Level: 11  
Prerequisites: None  
Credit: 1  
English III consists of the study of composition, and communication and American Literature. Students will study thematic units based on major themes of American Literature with Literature, music, fine arts, and personal experience. In Literature, students will study the individual and society, the power of nature, war and peace, or other common themes.

**AP English Language & Composition**
Grade Level: 11  
Prerequisites: A "B" average in English II class & consent of instructor.  
Credit: 1  
This demanding course follows the curriculum established by the College Board and prepares students to take the Advanced Placement examination in English Language and Composition. This advanced-level class prepares students for AP English IV.

**English IV**
Grade Level: 12  
Prerequisites: None  
Credit: 1  
English IV consists of the study of grammar, composition, the newspaper, oral communication, reference skills and British literature. Grammar skills will be applied in writing exercises ranging from the essay, to business letters and
resumes, to the research paper. In British literature the student will study prose, poetry, drama, the short story, and the novel

(AP) English Literature and Composition
Grade Level: 12
Prerequisites: Honors English I, II, & III or Consent of Instructor
Credit: 1
This demanding course follows the curriculum established by the College Board and prepares students to take the Advanced Placement examination in English Literature and Composition. It also serves as a student’s English 12 graduation requirement.
**Foreign Language**

**Spanish I**
Grade level: 9-12  
Prerequisite: None  
Credit: 1  
This course is an introduction to the Spanish language and to the customs and people of Spanish-speaking countries. Elementary Spanish grammar, conversation, and reading will be introduced. Also, a glimpse of the Spanish way of life will be given.

**Spanish II**
Grade level: 9-12  
Prerequisite: Spanish I  
Credit: 1  
This course is designed to further the student’s study of the Spanish language and to improve the student’s skill in reading, writing, and speaking Spanish. Students will have an opportunity to advance to a higher level of understanding and proficiency in the language.

**Spanish III**
Grade level: 10-12  
Prerequisite: “C” average in Spanish I & Spanish II  
Credit: 1  
This is an advanced Spanish course. Emphasis is placed on conversation, reading, and writing and speaking. Some cultural aspects of Spanish-speaking countries are also studied.

**AP Spanish IV**
Grade level: 12  
Prerequisite: “B” average in Spanish I, Spanish II, & Spanish III  
Credit: 1  
This is a college-level Spanish course. Emphasis is placed on conversation, reading, writing and speaking of the Spanish language. Some cultural aspects of Spanish-speaking countries are also studied. Students enrolled in this course are required to take the Advanced Placement test in the Spring.
Health and Physical Education

**Health**
Grade Levels: 10-12  
Prerequisite: None  
Credit: \( \frac{1}{2} \)
This course will aid the student in practicing good health habits for themselves, their present and future families, and that of the community. It emphasizes development and maintenance of good physical, mental and emotional health. Included are the effects of proper diet, exercise and rest upon body appearance and performance. Proper care of skin, hair, nails, teeth, eyes and ears are stressed for hygiene and function. This course also emphasizes safety and common sense practices in behaviors, first-aid, prevention of accidents and injuries, and prevention of disease. It is designed to give the students an understanding of the structure and function of the human body.

**Physical Education**
Grade Levels: 10-12  
Prerequisites: None  
Credit: \( \frac{1}{2} \)
Physical Education is made up of those directed purposeful activities which are centered around the total body, its movement, care and use. It stresses the development of physical, social and mental well-being. It is planned instruction in a variety of activities that will enable one to develop physical fitness; increase movement skill range and accuracy; socialize the individual; increase knowledge, favorable attitudes and appreciation; and foster better use of leisure time.

**Physical Education II/Advanced PE:**
Grade Levels: 11-12  
Prerequisites: Successful completion of PE I  
Credit: 1
This course is an extension of PE I course.
Mathematics

Algebra I
Grade Level: 9-12
Prerequisites: 8th grade math. Students with an 88% or above average in Algebra I as an 8th grader will not be permitted to take Algebra I for credit in High School unless recommended by their 8th grade instructor.
Credit: 1
Algebra I is a mathematics course designed for the high school student who has a good understanding of the basic skills of arithmetic, wants to develop a foundation of mathematical ideas and wants to prepare for advanced work in mathematics. The course contains the study of basic operations on real numbers, solving equations, inequalities, quadratic equations, factoring polynomials, problem solving, graphing, linear functions, solving systems of equations, exponents and radicals.

Algebra II
Grade Levels: 9-12
Prerequisites: Algebra I in 8th grade with an 85% or above average or Algebra I in High School.
Credit: 1
Algebra II is a mathematics course designed for students who have successfully completed Algebra I. This course contains an extension of material covered in Algebra I on solving linear equations and inequalities, absolute value, polynomials and rational expressions and the operations on them, real numbers, solving quadratic equations, complex numbers, linear sentences and moves to analytic geometry, solving systems of equations and inequalities in two or three variables and logarithms. Algebra II also helps students prepare for more advanced mathematics courses.

Honors Algebra II
Grade Levels: 9-12
Prerequisites: Algebra I in 8th grade with an 85% or above average or Algebra I in High School AND consent of instructor
Credit: 1
Honors Algebra II is an advanced mathematics course designed for students who have successfully completed Algebra I with at least an 85% average. This course contains an advanced study of material covered in Algebra I on solving linear equations and inequalities, absolute value, polynomials and rational expressions and the operations on them, real numbers, solving quadratic equations, complex numbers, linear sentences and moves to analytic geometry, solving systems of equations and inequalities in two or three variables and logarithms. Honors Algebra II also helps students prepare for more advanced mathematics courses.

Geometry
Grade Levels: 10-12
Prerequisites: Algebra I in 8th grade with at least an 85% average Algebra I in High School.
Credit: 1
In Geometry emphasis is placed on discovery, proof, and application of geometric relationships and principles so that the student will have an understanding of and appreciation for geometric concepts. The course contains a study of points, lines, planes, logic, angles, triangles, similarity and congruence, similar polygons, trigonometry, circles, formulas, geometric solids, constructions, locus, and coordinate.

Honors Geometry
Grade Levels: 10-12
Prerequisites: Algebra I in 8th grade with at least an 85% average Algebra I in High School AND consent of instructor
Credit: 1
This advanced Geometry class is a fast-paced study of discovery, proof, and application of geometric relationships and principles so that the student will have an understanding of and appreciation for geometric concepts. The course contains an advanced study of points, lines, planes, logic, angles, triangles, similarity and congruence, similar polygons, trigonometry, circles, formulas, geometric solids, constructions, locus, and coordinate.

Pre-calculus
Prerequisites: Algebra I & Algebra II and Consent of Instructor
May be taken in the same year as geometry with the consent of the instructor.
Credit: 1
Pre-calculus is a comprehensive course in functions and their graphs. Emphasis is placed on the application of topics to real-world situations. Topics included are functions and their inverses, graphs and their applications including
polynomial, rational, exponential, logarithmic, and trigonometric functions; matrices, polar coordinates, vectors, conic sections, sequences, series, and complex numbers.

**AP Calculus**
Grade Levels: 11-12
Prerequisites: Pre-calculus and consent of instructor
Credit: 1
This course in calculus consists of a full high school academic year of work that is comparable to calculus courses in colleges and universities. It is expected that students who take AP Calculus will seek college credit from institutions of higher learning. This course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. The connections among these representations are important. Topics included in this course are functions, graph, limits, derivatives, and integrals.

**College and Career Readiness Mathematics**
Grade Level: 12 (only)
Prerequisites: none
Credit: 1
This course is designed for students who have acquired computational skills and some fundamental algebraic and geometric concepts. Students will apply these concepts in problems solving and reasoning, algebra and graphs, probability and statistics, geometric and special right triangles, and percent and consumer topics. This course prepares students for the COMPASS and KYOTE assessments, which determine college and career readiness.
Miscellaneous Courses

**College Preparatory Skills**
Grade Level: 10-12  
Prerequisites: Must be planning to attend college and be on track to graduate.  
Credit: 1  
This course is designed for students who plan to attend college. Students will learn important study skills and learn about the college application process and college life. Students may have the opportunity to attend college fairs, meet college representatives, and visit colleges as a part of the class.

**Office Aide**
Grade Level: 12th ONLY  
Prerequisites: Must have all credits needed to graduate; written consent of office staff  
Credit: 0  
Non-instructional content

**Peer Tutoring**
Grade Level: 9-12  
Prerequisites: Consent of Instructor  
Credit: 1  
KY high schools have offered high school credit to students who have served as peer buddies and tutors to students with significant cognitive disabilities. Being a peer buddy allows students with and without disabilities to support each other throughout their school day. This may include interaction during general education classes, extracurricular activities, service learning, community-based instruction and other school activities. For many students, becoming a peer buddy is the first time they have had the opportunity to form a close relationship with a student with a moderate to severe disability, and as they spend time together they have the opportunity to teach each other an extraordinary amount about each other’s strengths and challenges, as well as how their similarities outweigh their differences!

**STLP (Student Technology Leadership Program)**
Grade level: 11-12  
Prerequisite: Instructor Approval  
Credit: 1  
Students will have the opportunity to acquire hands-on learning in the technology area throughout the school district in cooperation with the District Technology Coordinator and Support Staff. Instruction regarding delivery, set-up, problem solving, and troubleshooting of technology hardware and software matters will be practiced.

**Library Media/Research**
Grade level: 11/12  
Prerequisite: Instructor Approval  
Credit: 1  
Students will assist the media specialist and support staff in maintaining and operating the library media center. Duties include: checking in/out and locating print and digital materials for students and staff, shelving and organizing materials, creating displays to promote reading, and other clerical tasks related to the library media center. Students must have good organizational and communication skills, be able to work with staff and students in grades K-12, and be willing to assist with media center and classroom technology as needed.

**Work-Based Learning**
Grade level: 12 (only)  
Prerequisite: Principal/Desigee Approval  
Credit: ½-1, Depending on the Time Spent/Course(s) Taken  
Eligible students may enroll in work-based learning opportunities that are connected to the students’ career goals in their ILP. Experiences vary based on each student’s desired workplace experience, but work-based learning opportunities can include cooperative education, internships, volunteering, and job shadowing. Eligibility is determined at the local school level and depends on the learning opportunity. Pursuant to the revised KAR 15:090,
students participating in work-based learning must take four courses (credits) in addition to the work-based learning course to be eligible to earn Kentucky Educational Excellence Scholarship (KEES) funds that school year. Both students and parents/guardians must sign a Work-Based Learning contract in order for students to be considered.

**WHS Independent Study**
Grade level: 9-12
Prerequisite: Principal/Designee Approval
Credit: ½-1, Depending on the Course(s) Taken
The Independent Study Program provides opportunities for high school students to meet their educational needs through independent study conducted via correspondence. Students may enroll in independent study courses in order to eliminate deficiencies on high school transcripts, to earn additional credits toward graduation, and/or for enrichment purposes. The principal/designee must approve each student’s application by noting the subject that the student is to take and determining that the student meets the qualifications for eligibility. Students must receive a passing score (at least 70 percent) on all course work in order to receive credit for the course. The maximum time a student has to complete a course is one school year. Both students and parents/guardians must sign a contract before a student is allowed to begin an independent study course.
Science

**Integrated Science I**
Grade Levels: 9-10  
Prerequisites: None  
Credit: 1  
This class is required of all freshman. This course incorporates physical, chemical, and earth sciences, covering the basic laws of Chemistry and Physics, knowledge of the elements, change in matter, the relationship between matter, energy, and the Earth, problem solving, metric functions, and laboratory techniques and safety.

**Integrated Science II**
Grade Levels: 11-12  
Prerequisites: Integrated Science I  
Credit: 1  
This course is intended for non-college bound juniors and seniors, or those wishing to add a fourth science credit. Units of study include Water, Petroleum, Nuclear energy, Meteorology, Astronomy and Forensic Science.

**Chemistry I**
Grade Level: 10-11  
Prerequisites: Integrated Science I, Biology I, Algebra I, preferably taking Algebra II  
Credit: 1  
This course is designed to give the student a proficient background in Chemistry. The units of study will deal with the periodic table, the properties of matter, atomic and molecular structure, behavior of nuclear particles, acids, bases and salts.

**Biology I**
Grade Levels: 9-12  
Prerequisites: None  
Credit: 1  
This is an introductory course that deals with the overall study of life. This course combines lectures with lab experiments to increase student involvement and understanding. The following topics are covered in biology: basic chemistry; structure, organization, and energetics of the cell; genetics; evolution; taxonomy; microorganisms; fungi; plants; animals; environmental biology.

**Biology II**
Grade Level: 11-12  
Prerequisites: Biology I  
Credit: 1  
This course offers students advanced level experience in the concepts of biology. Laboratory techniques are developed more to acquaint students with appropriate investigative methods and techniques used by scientists, with particular emphasis in the fields of environmental biology, populations, ecology, behavior, genetics, and selected areas of current research.

**AP Biology**
Grade Level: 11-12  
Prerequisites: A "B" Average or higher in previous science course  
Credit: 1  
This course is the equivalent of a major's college-level course, taught in a high school setting. It provides students with an opportunity to develop content knowledge, laboratory skills, and critical thinking skills that will help prepare them for college. It is expected that students who take AP Biology will seek college credit from institutions of higher learning. The information covered in this course reflects the outline suggested by the College Board, which revolves around eight major themes: science as a process; evolution; energy transfer; continuity and change; relationship of structure to function; regulation; interdependence in nature; science, technology, and society. Laboratory exercises are a critical component of the coursework and will include the 12 suggested AP labs (or modified versions of them).

**Chemistry II**
Grade Level: 10-12  
Prerequisites: Chemistry I
Credit: 1
This course is a continuation of Chemistry I. Topics include thermo chemistry, equilibrium, redox, organic & biochemistry.

**Physics**
Grade Level: 10-12
Prerequisites: Algebra II
Credit: 1
This course is designed to present a better understanding of the nature of matter and energy. Areas of study that will be dealt with are work, velocity, motion, light reflection and refraction and electrostatics.

**Anatomy & Physiology**
Grade Level: 11-12
Prerequisites: An “A” or “B” average in all previous science courses.
Credit: 1
This course addresses the fundamental concepts of human structure and function. Major topics that are covered in this course are the 11 organ systems. With the help of models and specimen, students will gain understanding about the functioning of these organ systems within the human organism.
Social Studies

**Government & Economics**
Grade Level: 9-12  
Prerequisites: None  
Credit: 1  
This course is designed to introduce students to World Geography, Civics, Politics and Government, and Economics.

**World Civilization**
Grade Level: 10-12  
Prerequisites: None  
Credit: 1  
This is a historical introduction to the major civilized societies of the world tracing the principle aspects of their development from 1500 to modern day. It includes an in-depth study of the cultures of the world.

**United States History**
Grade Level: 11-12  
Prerequisites: None  
Credit: 1  
United States History is a study of the nation’s social, economic and political development from pre-colonial days to the present.

**Psychology & Sociology**
Grade Level: 12  
Prerequisites: None  
Credit: 1  
Students will examine personal adjustment through the study of such topics as personality, motivation, emotions, growth and development, mental health and mental illness, statistics, sensation and perception, physiology.

**AP U.S. History**
Grade Levels: 11-12  
Prerequisites: None  
Credit: 1  
This course follows the curriculum established by the College Board and prepares students to take the advanced placement examination in American History.
Vocational Education

Technical Math and/or Science
Grade Level: 11-12
Credit: 1
This credit is given for successful completion of one year of one of the following courses at the vocational school: Auto Body, Diesel, Electrician Tech, Health Science, Welding, or Metal Fabrication.

Science
Grade Level: 11-12
Credit: 1
This credit will be given for successful completion of Health Science at the vocational school.

Technology
Grade Level: 11-12
Credit: 1
This credit will be given for successful completion of Information systems at the vocational school.

Vocational School Programs
Grade Level: 11-12
Credits: Vary, depending upon class & program
*Please note: Availability of these programs vary. Boone County ATC is responsible for all Vocational School scheduling.
  - Auto Body
  - Diesel
  - Electricity
  - Health Sciences
  - Information Technology
  - Metal Fabrication
  - Welding

Online Courses
Grade Level: 11-12
Credits: Vary, depending upon course(s) taken.
*Please note: Students must request to take online college or high school course, and the request must be reviewed and approved by administration. Students and parents must sign and agree to the stipulations and must also sign a contract before the student is enrolled into the courses. These forms can be obtained in the guidance office.

Northern Kentucky University—School-Based Scholars
Grade Level: 11-12
Credits: Vary, depending upon course(s) taken.
*Please note: Students must meet requirements set forth by Northern Kentucky University and Williamstown Jr./Sr. High School in order to enroll in these classes. There is a limit on the number of students admitted, and students are admitted on a first-come first served basis. Strict adherence to deadlines is necessary. Students must have a 21 or higher on their ACT and a 3.25 cumulative GPA in order to enroll. They must also maintain a 3.25 GPA in order to remain in the courses throughout the school year. Other requirements may be instituted at any time. The types of courses offered vary from semester to semester and is strictly up to the university. Once students have enrolled, they must remain fully-enrolled in the program for the entire year unless their GPA falls below the requirement. Please come to the guidance office for more information or visit http://nkuonline.nku.edu/smartcatalog/school-based-scholars-program.htm to download an application and for more information.
Gateway Community & Technical College—Gateway Regional Academy
Grade Level: 11-12
Credits: Vary, depending upon course(s) taken.
*Please note: Students must meet requirements set forth by Gateway Regional Academy and Williamstown Jr./Sr. High School in order to enroll in these classes. Other requirements may be instituted at any time. The types of courses offered vary from semester to semester and is strictly up to the university. Once students have enrolled, they must remain fully-enrolled in the program for the entire year unless their GPA falls below the requirement. Please come to the guidance office for more information or visit http://gateway.kctcs.edu/en/admissions/early_college.aspx for more information and to download an application.

Carol Martin Gatton Academy of Mathematics and Science--WKU
Grade Level: 11-12
Credits: Vary, depending upon course(s) taken.
*Please note: Students must apply for and be accepted into this program in order to participate. More information is available at www.wku.edu/academy/.