COURSE DESCRIPTIONS

2017-2018

GRADUATION REQUIREMENTS

A credit is defined as a subject taken and passed for one term. Some subjects are required. That is, they must be taken and passed by all students who expect to graduate from Williamsburg High School. The other subjects are electives and may be selected by the student to complete the total number of credits required for graduation.

The Williamsburg Community School District believes in equity. Matters of sex, race, religion, creed, or handicap will not be considered valid reasons in and of themselves to prevent students from taking those subjects.

GRADUATION REQUIREMENTS
55 CREDITS

Eight (8) credits in Language Arts
- English 9 (2 Credits)
- English 10 (2 Credits)
- English 11 (2 Credits)
- Two credits of Language Arts electives

Six (6) credits in Science
- Two (2) credits in Earth Science (9th Grade)
- One (1) credit in Intro to Physics (10th Grade)
- One (1) credit in Intro to Chemistry (10th Grade)
- Two (2) credits in Biology (11th Grade)

Six (6) credits in Mathematics

Six (6) credits in Social Studies
- One (1) credit in Geography (9th Grade)
- Two (2) credits in American History (10th Grade)
- Two (2) credits in World History (11th Grade)
- One (1) credit of Government (12th Grade)

One (1) credit in Consumer Economics

One (1) credit in Health

Four (4) credits in Physical Education
- Students will meet the swimming requirement, equivalent to nine (9) weeks of swimming, through documented swimming units integrated into the personal wellness course.

23 Credits Of Electives

Williamsburg Community School District declares and affirms to its students, employees, and to the public that it does not discriminate on the basis of sex, race, age, color, creed, national origin, religion, marital status, sexual orientation, gender identity, physical appearance, personality traits, and/or disability in its educational programs, activities, admission procedures, or employment practices. The Williamsburg Community School District affirms its commitment to comply with all applicable federal and state laws, regulations, and orders.

If you have any questions or grievances related to compliance with this policy, please contact the Williamsburg Equity Coordinator, Chad Garber at 810 West Walnut, Williamsburg, Iowa 52361, or by phone 319-668-1059; or the Director, Office of Civil Rights, U.S. Department of Education, Citigroup Center, 500 W. Madison Street, Suite 1475, Chicago, IL 60661, or by phone 312-730-1560, fax 312-730-1576, or email: OCR.Chicago@ed.gov

WHS - SOAR PROGRAM

Talented and Gifted students are identified students whose academic needs are greater than what can be offered in the standard classroom. These students' needs can be met in a variety of ways; including, but not limited to, differentiation in the classroom, acceleration of classes, and ability grouping.

Identification
Typically, SOAR students are the top 3-4% of students in a particular grade level based on academic ability and cognitive needs. Identification of high school SOAR students at Williamsburg occurs in 8th grade during April after the current year's Iowa Assessment, MAPS, and CogAT tests have been taken. Identified high school SOAR students and parents will be notified before the next high school year begins. New enrollees from gifted programs and students' grades 9-12 with significant improvement will also be considered at this time. Students scoring in the Iowa Assessment 90th percentile or above on the English Language Arts, Science, Social Studies, and Math subtests are eligible for teacher recommendations. Teacher recommendations are based solely on the characteristics of giftedness. After test scores from Iowa Assessment, MAPS, Coat, and teacher recommendations are submitted, a committee of administrators, coordinators, counselors, and teachers will compile the results and identify the SOAR students (top 3-4%).

Academic Opportunities

Acceleration
Common accommodations for SOAR students come from differentiation in instruction and ability grouping in the individual classrooms. If determined necessary by the classroom teachers, the SOAR Coordinator and the administration, students may be accelerated into a higher-level class per the school board policy.

Advanced Placement (AP) Courses
All 11th and 12th grade students are eligible to take AP Courses. Identified high school SOAR students are eligible to take the AP Courses in 9th and 10th grade as well. Williamsburg requires all students enrolled in an AP course to take the AP test each May. The student is responsible for half of the AP testing fee, approximately $45.00, and the school pays for the other half.

The AP courses taught by Williamsburg teachers are Biology, Chemistry, Physics B, Statistics, Calculus AB, Calculus BC, World History, and Psychology. Other possible AP courses may be taken online.

Conferences and Academic Competitions
High school SOAR students have the opportunity to participate in a variety of conferences and academic competitions such as: Iowa ITAG Spring Youth Conference, ISU Taking the Road Less Traveled Conference, Grant Wood AEA Technology Conferences, National High School Science Bowl, Math Club, HS First Tech Challenge, HS Battle of the Books, and FCCLA competitions.

NEW COURSES FOR 2017 – 2018

Post Secondary Options Act

The Post-Secondary Options Act is intended to promote rigorous pursuits and to provide a wider variety of options to high school students by enabling eleventh and twelfth grade students to enroll part time in nonsectarian courses in eligible post secondary institutions of higher learning in Iowa. Application forms and further information are available in the high school office. Applications may be completed in the high school principal's office.

COURSE INDEX

ENGLISH LANGUAGE & LITERATURE (CONTINUED)							
Composition	English 9 & 10			11	12	6	1
Composition I-KCC	KCC Placement Test			11	12	6	1
Composition II-KCC	Composition I-KCC			11	12	6	1
Creative Writing	English 9 & 10			11	12	6	1
Media & Literature	English 9 & 10			11	12	7	1
Minority Literature	English 9 & 10			11	12	7	1
Modern Fiction	English 9 & 10			11	12	7	1
Sports & Literature	English 9 & 10			11	12	7	1
FAMILY & CONSUMER SCIENCES							
Child Development		9	10	11	12	8	1
Clothing		9	10	11	12	8	1
Clothing II	Clothing I	9	10	11	12	8	1
Family Living		9	10	11	12	8	1
FCS Small Business		9	10	11	12	8	1
Financial Literacy		9	10	11	12	8	1
Foods and Nutrition I		9	10	11	12	8	1
Foods and Nutrition II	Foods and Nutrition I	9	10	11	12	8	1
Foods and Nutrition III	Foods and Nutrition II		10	11	12	9	1
Interior Design		9	10	11	12	9	1
Intro to College	KCC Placement Test			11	12	9	1
Menu Planning	KCC Placement Test		10	11	12	9	1
Nutrition	KCC Placement Test		10	11	12	9	1
Parenting		9	10	11	12	9	1
Quick Cooking	Foods and Nutrition I	9	10	11	12	10	1
Safety and Sanitation	KCC Placement Test		10	11	12	10	1
Single Living				11	12	10	1
Skills for Life I		9	10	11	12	10	1
Skills for Life II		9	10	11	12	10	1
FINE & PERFORMING ARTS							
Art Fundamentals		9	10	11	12	11	1
Advanced Art	Completion of Four Art Courses				12	11	1
Ceramics	Art Fundamentals	9	10	11	12	11	1
Choir - Concert/Bass/Treble/Mens		9	10	11	12	11	4
Drawing	Art Fundamentals	9	10	11	12	11	1
Graphic Art	Art Fundamentals			11	12	12	1
High School Band	Prior Experience on Instrument	9	10	11	12	12	4
Jewelry	Art Fundamentals		10	11	12	12	1
Painting	Art Fundamentals	9	10	11	12	12	1
Printmaking	Art Fundamentals	9	10	11	12	12	1
Sculpture	Art Fundamentals	9	10	11	12	12	1

FOREIGN LANGUAGE							
Spanish I		9	10	11	12	13	2
Spanish II	Proficient in 80% of Spanish I standards	9	10	11	12	13	2
Spanish III	Proficient in 80% of Spanish II standards		10	11	12	13	2
Spanish IV	Proficient in 80% of Spanish III standards			11	12	13	2
Spanish V	Proficient in 80% of Spanish IV standards				12	13	2
HEALTH & SAFETY EDUCATION							
Health & You		9	10			14	1
Contemporary Health			10	11	12	14	1
INDUSTRIAL/TECH EDUCATION							
Adv Construction Material Processing	Construction Material Processing		10	11	12	15	1
Building Construction Systems I	Construction Technology		10	11	12	15	1
Computer Integrated Manufacturing (CIM)	IED	9	10	11	12	15	2
Construction Material Processing		9	10	11	12	15	1
Construction Technology	Construction Material Process		10	11	12	15	1
Gas Metal Arc Welding Short Circuit Transfer				11	12	16	2
Gas Metal Arc Welding Spray Transfer				11	12	16	2
Gas Tungsten Arc Welding				11	12	16	2
House Construction/Building Trades	Advanced Construction Material Processing				12	16	4
Intro to Material Processing		9	10	11	12	16	1
Intro to Welding Safety				11	12	16	2
Light Machining for Main. Trades				11	12	17	2
Metals	Intro to Materials Processing	9	10	11	12	17	1
Metal Fabrication	Intro to Materials Processing/Welding I		10	11	12	17	
Production Technology	Construction Material Processing	9	10	11	12	17	1
Small Engines		9	10	11	12	17	1
Welding I		9	10	11	12	17	1
LIFE & PHYSICAL SCIENCE							
Earth Science		9				18	2
Introduction to Chemistry	Earth Science	9	10	11	12	18	1
Introduction to Physics	Earth Science, Geometry Completion Preferred		10	11	12	18	1
General Biology	Intro to Chemistry	9	10	11	12	18	2
Advanced Chemistry	Intro to Chemistry	9	10	11	12	18	1
Advanced Physics	Intro to Physics, Algebra II			11	12	19	1
Advanced Placement Biology	Advanced Chemistry, Human Anatomy, General Biology			11	12	19	2
Advanced Placement Chemistry	Advanced Chemistry, Algebra II			11	12	19	2
Advanced Placement Physics	Advanced Physics, Algebra II			11	12	19	2
Analysis of World Events: Scientific	Earth Science	9	10	11	12	20	1
Environmental Science - KCC	General Biology/KCC Placement Scores			11	12	20	1
Environmental Sustainability(SE)-PLTW	General Biology/KCC Placement Scores		10	11	12	20	2
Human Anatomy & Physiology	General Biology		10	11	12	20	2
Principles of Engineering (POE)-PLTW	IED	9	10	11	12	20	2

MASS COMMUNICATION							
Yearbook I & II		9	10	11	12	21	1
MATHEMATICS							
Algebra I-1 Semester	Proficient in 90% of Math 8 Standards	9	10			22	2
Algebra I (QS)-Year Long	Proficient in 80% of Math 8 Standards	9	10			22	2
Algebra I A/B- 2 Year	Proficient in 80% of Math 8 Standards	9	10			22	2
Geometry- Semester	Proficient in 90% of Algebra I Standards	9	10	11		22	2
Geometry (QS)-Year Long	Proficient in 80% of Algebra I Standards	9	10	11		22	2
Geometry A/B- 2 Year	Proficient in 80% of Algebra I Standards		10	11		23	2
Algebra II-Semester	Proficient in 90% of Geometry Standards		10	11	12	23	2
Algebra II (QS)-Year Long	Proficient in 80% of Geometry Standards		10	11	12	23	2
Pre-calculus & Discrete Math (PDM)	Proficient in 80% of Algebra II Standards			11	12	23	2
AP Calculus AB	Proficient in 80% of PDM Standards			11	12	23	2
AP Calculus BC	AP Calculus AB				12	23	2
AP Statistics	Algebra II			11	12	24	2
Survey of Mathematics	Geometry A/B or Admin Approval			11	12	24	2
PLTW: Introduction to Computer Science		9	10	11	12	24	2
PHYSICAL EDUCATION							
Personal Wellness		9	10	11	12	25	1
Lifeguarding	15 years of age or older	9	10	11	12	25	1
SOCIAL SCIENCES & HISTORY							
American History			10			26	2
Government				11	12	26	1
World Geography		9	10			26	1
World History				11	12	26	2
AP American History			10	11	12	27	2
AP Psychology				11	12	27	2
AP World History				11	12	27	2
SPECIAL EDUCATION COURSES							
Social Skills	IEP DIRECTED	9	10	11	12	28	2
WASA	IEP DIRECTED	9	10	11	12	28	2
SUPPORTIVE PROGRAMS & ASSISTANCE							
Leadership Development		9	10	11	12	29	1
Study Skills	Test Data or Need	9	10	11	12	29	2
SUCCESS	Need	9	10	11	12	29	2
KIRKWOOD CAREER EDGE ACADEMIES							
Advanced Manufacturing	KCC Placement Scores	9	10	11	12	31	
Agriculture Science Academy	KCC Placement Scores		10	11	12	32	
Arts and Science Academy	KCC Placement Scores	9	10	11	12	33	
Culinary Academy	KCC Placement Scores		10	11	12	34	
Education Academy	KCC Placement Scores			11	12	35	
Health Careers Academy	KCC Placement Scores			11	12	36	
Project Lead The Way	KCC Placement Scores	9	10	11	12	37	

Software Specialist	KCC Placement Scores	9	10	11	12	38	
Welding	KCC Placement Scores			11	12	39	

AGRICULTURE

INTRODUCTION TO AGRICULTURE (AFNR)

PREREQUISITE: NONE
GRADE LEVEL: 9-12

THIS IS THE CORE COURSE IN THE AG ED DEPARTMENT. IT IS A PREREQUISITE FOR ALL OTHER AG ED COURSES. Students participating in the Introduction to Agriculture, Food, and Natural Resources course will experience exciting "hands-on" activities, projects, and problems. Student experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students will work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise.

AG BUSINESS

PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12

This course will study the business aspects of agriculture including but not limited to: entrepreneurship, farm management, agricultural marketing, sales, accounting, agricultural law, cooperatives, record keeping, U.S. AG policy, and foreign trade.

AG ENERGY

PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12

This course will study the business aspects of agriculture including but not limited to: entrepreneurship, farm management, agricultural marketing, sales, accounting, agricultural law, cooperatives, record keeping, U.S. AG policy, and foreign trade.

AG LEADERSHIP

PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12

This course will develop leadership and career skills in students over the semester. Students will engage in team building, communication, leadership, and cooperative activities. Students will also practice public speaking, job interview, extemporaneous speaking, and parliamentary procedure skills.

AGRICULTURAL MECHANICS

PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12

This course will study and explore various careers, safety and lab orientation, use of wood working and metal working tools, power tools, project planning, use of fasteners and adhesives, using hardware, using plans, cutting and welding, painting, small gas engines, electricity, plumbing, hydraulics, concrete, fencing, roofing, and small agricultural building structures.

CASE ANIMAL SCIENCE

PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12

This course includes study of classes of livestock including: beef, dairy, swine, horses, goats, sheep, poultry, aquaculture, rabbits, specialty, and exotic animals. Topics studied will include careers, livestock selection and evaluation, reproduction, animal health and diseases, genetics, biotechnology, and marketing.

CASE PLANT SCIENCE

PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12

The course is structured to enable all students to have a variety of experiences that will provide an overview of the field of agricultural science with a foundation in plant science so that students may continue through a sequence of courses through high school. Students will work in teams, exploring hands-on projects and activities, to learn the characteristics of plant science and work on major projects and problems similar to those that plant science specialists, such as horticulturalists, agronomists, greenhouse and nursery mangers and producers, and plant research specialists face in their respective careers. This knowledge and skills will be used in future courses within the CASE™ program. Students will study soils, plant propagation, hydroponics, plant anatomy and physiology, taxonomy, crop marketing, and more. Students will also utilize the greenhouse for lab activities.

GLOBAL AGRICULTURE

PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12

This course will study the business aspects of agriculture including but not limited to: entrepreneurship, farm management, agricultural marketing, sales, accounting, agricultural law, cooperatives, record keeping, U.S. AG policy, and foreign trade.

NATURAL RESOURCES

PREREQUISITE:INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12

This course will enable students to better understand their natural world and how to better manage it. Students will work in groups to solve problems and do hands-on projects. Some of the issues that students will study include: History of U.S. use of natural resources, soil management, fish and wildlife, water resources, forestry, biofuels and alternative energy, and careers in natural resources.

PRECISION FARMING SYSTEMS

PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12
THIS CLASS IS AT IOWA VALLEY
KCC CREDIT-3 CREDITS

Provides a background in the tools of precision farming, GPS, GIS and VRT. Introductory use of each of these tools in a precision farming system and how they are applied on the farm are covered. Hands-on activities with local data will provide a practical experience in the use of these tools. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PRINCIPLES OF AGRONOMY

THIS IS A SEMESTER LONG COURSE
KCC CREDIT- 3 CREDITS
AT IOWA VALLEY HIGH SCHOOL

Presents instruction in a crop plant classification, use and identification. Also covers cropping systems, tillage methods, planting and harvesting methods and crop growth patterns. A balance of theoretical and practical crop science. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PRINCIPLES OF HORTICULTURE

THIS IS A SEMESTER LONG COURSE
KCC CREDIT- 3 CREDITS
AT IOWA VALLEY HIGH SCHOOL

Includes plant growth, botanical nomenclature, anatomy, propagation, plant nutrition and climate, and introduces career fields within the horticulture industry. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

SURVEY OF ANIMAL INDUSTRY

SEMESTER LONG COURSE
KCC CREDIT- 3 CREDITS
AT IOWA VALLEY HIGH SCHOOL

Breeds, basic management and marketing of farm animals. Composition, evaluation and marketing of animal products. Includes live animal demonstrations with cattle for meat and milk, horses, poultry, sheep and swine. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE A COMPASS TEST OR ACT TEST SCORES ON FILE.**

BUSINESS/COMPUTER

REQUIRED

CONSUMER ECONOMICS
GRADE LEVEL: 11-12

Consumer Economics is a required course and must be passed in order to graduate from Williamsburg High School. The course will consist of a study of the basic elements of micro-economics, the business world, consumer awareness, money and banking, credit usage, savings accounts, insurance purchases, and a personal budget. In addition, students will learn skills for job acquisition, such as the application process, resume writing, and job interviewing. The major goal of the course will be to provide students with an understanding of the day-to-day economic decision-making process.

ELECTIVES

BUSINESS LAW
GRADE LEVEL: 9-12

Business Law is a course that introduces students to legal issues as related to business. Course content includes our U.S. Constitution, ethics in our law, kinds of laws, enforcing the law, crimes, and torts. Also the course takes a look at how the laws treat certain groups such as: laws for minors, laws for families, laws for consumers, and contract law. Landmark Supreme Court cases that impact the schools environment will be included.

BUSINESS PRINCIPLES AND MANAGEMENT
GRADE LEVEL: 11-12

With the support and guidance of volunteer consultants from the local business community, this course will provide students with basic economic education through a combination of course work, speakers, and field trips. Students will not only learn how businesses function but also about the structure of the U.S. free enterprise system and the benefits it provides. Through the use of the Junior Achievement model and an Internet simulation activity, students will learn business organization, revenue raising principles, pricing, marketing concepts, human resource management, and decision-making.

DESKTOP PUBLISHING
GRADE LEVEL: 9-12
KCC CREDIT-3 CREDITS

The programs explored in this class are InDesign, Photoshop, Publisher and Microsoft Word. We explore parts of all of these applications which have a desktop publishing component. If you enjoy getting creative with text, shapes, color and photo, or if you enjoy exposure to new programs, this course is a good fit for you. This is an introductory course to expose students to software that is used to create items such as menus, magazine spreads, and magazine covers, and other commonly used printed materials. **STUDENTS WILL NEED TO APPLY TO KCC.**

DOCUMENT FORMATTING
PREREQUISITE: WORD PROCESSING
GRADE LEVEL: 9-12

Students use a variety of applications to make information look professional and interesting. . Students will be exposed to activities that will enhance their work place readiness skills. The goals of the course include using a variety of software to prepare mail merges, tables, labels, sort function, reference feature, online sites, newsletters, online forms, reports, online templates, styles, mailings, and envelopes.

ENTREPRENEURSHIP
GRADE LEVEL: 9-12

This term course is designed to build students' skills in entrepreneurial processes and tie those processes to successful management concepts and operations. The roles of small business in the United States economy, what it takes to be a business owner, creation of a small business, and management and/or expansion of a small business are units covered by the completion of assignments throughout the semester as well as a possible business simulation.

INTRO TO ACCOUNTING
GRADE LEVEL: 9-12

This course will emphasize the basics of accounting. If you plan to pursue a business related field, this is a good starter course because you will be expected to take accounting at the college level. The foundation that you learn will make college accounting much easier. Students will explore the basics of bookkeeping and record keeping for a small service and merchandising business.

INTRODUCTION TO BUSINESS
GRADE LEVEL: 9-12

This is an introductory level course which explores the types of business organizations, careers offered, and business simulations. This course will introduce students to the world of business and help prepare them for the economic roles of consumer, worker and citizen. This class is designed for 9th and 10th grade students and should be one of the first courses taken in the business department.

INTRO TO INTEGRATED TECHNOLOGY
GRADE LEVEL: 9-12

In this class we take information and plug it into several types of applications. We use Keynote, iPhoto, VideoScribe, movie applications, and audio to build messages that move in unique ways. One of the major focus of this course is to create unique ways to communicate information. This class is changing constantly as we learn about new sites that are interesting, fun, and useful. Students will explore a variety of ways to take information and present it in an interesting and creative way.

INTRO TO COMPUTERS
GRADE LEVEL: 9-12
KCC CREDIT-3 Credits

This course covers a wide range of topics when it comes to working with computer related concepts. In this course the student will be defining terminology related to topics of information systems, hardware, network, and information technology. Software specific applications include demonstrating competency in various spreadsheet applications, presentation applications, database applications, document editing and formatting applications.

Familiarizes the student with business, personal and industrial uses of microcomputers. Broad-based overview of microcomputer topics is presented; concepts of storage media, file organization and data representation are also presented. The fundamentals of computer problem solving and programming are discussed. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

MARKETING
GRADE LEVEL: 9-12

Marketing is a 1-term course that will explore areas such as pricing, promotion, production, and distribution. Also, marketing practices such as wholesaling, retailing, and networking will be studied. This course will enable students to understand and apply marketing, management, and entrepreneurial principles; to make rational economic decisions; and to exhibit social responsibility in a global economy.

MICROSOFT APPLICATIONS
GRADE LEVEL: 9-12

An ideal part of this course is that students have the opportunity to earn a certification in Microsoft Excel. When we are not working on getting prepared for the Excel certification, we are learning how Excel is used with other applications such as Word, PowerPoint and if time permits Access. This is a course designed to get students ready for college and workplace. Students will be exposed to spreadsheets, presentation software, and database software if time permits.

POWERPOINT (EMERGING TECH TRENDS)
GRADE LEVEL: 9-12
KCC CREDIT-3 CREDITS

An ideal part of this course is that students have the opportunity to earn a certification in Microsoft PowerPoint. We also work towards developing a knowledge of multimedia concepts by studying multimedia software and the hardware components needed to develop and view multimedia productions. Use assessment projects to demonstrate and learn multimedia elements (copyright, video, graphics, sound and animation), tools (digital camera, video camera, scanner, cams) and editing software (sound, video and graphics editing). The primary focus of the class is the multimedia. Students will learn to use sound, video, with the PowerPoint. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

WEB DESIGN
GRADE LEVEL: 9-12

Focus on the introductory concepts of the overall production process surrounding web site design with particular emphasis on layout of web pages. Students are exposed to web authoring software to design and create a website. Application used in this class is Adobe Dreamweaver Creative Cloud.

WORD PROCESSING
GRADE LEVEL: 9-12

An ideal part of this course is that students have the opportunity to earn a certification in Microsoft Word. Earning a certification is only one good part, there are more listed below. Students who need/want to master typing skills and who also want to learn more about Microsoft Word are encouraged to take this course. Some of the goals of this course are to help the student master typing by touch, improve typing speed, and improve typing accuracy. Other goals include using the Microsoft Word program to prepare letters, templates, memos, tables, and reports, format graphics, and outlines. Students will also explore a variety of applications found online that relate to our curriculum.

DRAFTING

ARCHITECTURAL DESIGN
2 TERM COURSE
GRADE LEVEL: 10-12

This course is designed to teach students basic architectural design techniques using Revit software. Students will discuss architectural fundamentals, design, & model their own house.

COMPUTER INTEGRATED MANUFACTURING (CIM)
PREREQUISITE: IED
GRADE LEVEL: 9-12
KCC CREDIT-3 CREDITS

Manufactured items are part of everyday life, yet most students have not been introduced to the high tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system. Teaches robotics and automated manufacturing concepts by creating three-dimensional designs with modeling software, then producing actual models of student designs. This course was developed by Project Lead the Way. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

INTRODUCTION TO ENGINEERING DESIGN (IED)-PLTW
SEMESTER COURSE
GRADE LEVEL: 9-12
PSEO-KCC CREDIT-3 CREDITS

This PLTW course challenges students to use a problem-solving model to improve existing products and invent new ones. Emphasis is placed on analyzing potential solutions and communicating ideas to others. The course assumes no previous knowledge, as students will employ engineering and scientific concepts in the solution of engineering design problems. In addition, students use inventor which is a state of the 3D solid modeling design software package from Autodesk to help them design solutions to solve proposed problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course. Students will also learn how to document their work, and communicate their solutions to their peers and members of the professional community. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

INTRO TO MATERIAL PROCESSING
1-TERM COURSE
GRADE LEVEL: 9-12
In this course, students become familiar with the materials, processes, tools, machines, and practices of the wood and metal industries. During this course, which is both project and objective oriented, students gain hands-on experience in the operation of machines and tools which are common to construction and manufacturing.

PRINCIPLES OF ENGINEERING (POE)-PLTW
SEMESTER COURSE
GRADE LEVEL: 9-12
PSEO-KCC CREDIT-3 CREDITS

This PLTW course is designed for students to explore a wide variety of careers in engineering and technology. Using activities, projects, and problems, students learn first hand how engineers and technicians use math, science, and technology in an engineering problem-solving process to benefit people. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

ENGLISH LANGUAGE ARTS

REQUIRED

ENGLISH 9
2 TERM COURSE

Ninth grade English is required of all students; the course combines writing and reading with traditional English usage, and concentrates on students using various forms of printed materials. This study of a broad range of literature includes the reading of novels, short stories, plays, and poetry. There will also be a focus on expository writing with an emphasis on utilizing research skills.

ENGLISH 10
2 TERM COURSE
PREREQUISITE: ENGLISH 9

Tenth grade English is required of all students. The class incorporates reading, writing, speaking and viewing of various texts from American Literature. Students will be asked to use a variety of media components to show their learning. There will also be a focus on literary analysis, informative and narrative writing techniques.

ENGLISH 11
2 TERM COURSE
PREREQUISITE: ENGLISH 10

Eleventh grade English is required for all students. The class incorporates reading, writing, speaking and viewing of various texts from British Literature and World Masterpieces. There is also a focus on research and advanced expository writing skills in conjunction with various reading projects.

ELECTIVES

COMPOSITION
PREREQUISITE: ENGLISH 9 & ENGLISH 10
GRADE LEVEL: 11-12

Basic Composition is a one-term course which focuses on reflective, expository, and persuasive writing. It is particularly suited for students who plan on entering the armed forces or attending a community college. Students write at least four small papers and create a portfolio of written work. Types of papers will include opinion papers, reflective essays, and persuasive research. Students will use outside sources for some papers and will practice MLA format and citation. There will also be an emphasis on grammar, usage, and mechanics.

COMPOSITION I
PREREQUISITE: SEE KCC GUIDELINES
PSEO-KCC CREDIT- 3 CREDITS

Composition I requires a Compass Test Placement score of 70 or above or ACT score of 18 or above. This course develops expository and analytical writing with emphasis on organizations, supporting details, style, vocabulary and research skills. Students will read, discuss, and analyze literature in a variety of genres. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

COMPOSITION II
PREREQUISITE: COMPOSITION I
GRADE LEVEL: 12
PSEO-KCC CREDIT- 3 CREDITS

Composition II teaches precise and responsible use of research tools and critical analysis of literature. While building upon the skill set of Composition I, emphasis is on developing effective arguments and navigation of difficult texts.

CREATIVE WRITING
PREREQUISITE: ENGLISH 9 & ENGLISH 10
GRADE LEVEL: 11-12

Creative Writing is a one term English elective for the student who is interested in developing creative writing skills in a variety of genres: fiction, poetry, drama, etc. Students will read exemplary writing and then produce their own; emphasis is on writing as exploration and discovery.

MEDIA AND LITERATURE

PREREQUISITE: ENGLISH 9 & 10
GRADE LEVEL: 11-12

Students in this course will analyze and deconstruct fiction, non-fiction, visual, and auditory media by asking: Who created this message and why are they sending it? What techniques are used to attract and hold attention? What lifestyles, values, and points of view are represented? What is omitted and why is it left out? How might different people interpret this message? Students will create original media products and maintain a media blog as an authentic forum for their analysis and writing.

MINORITY LITERATURE

PREREQUISITE: ENGLISH 9 & 10
GRADE LEVEL: 10-12

Minority Literature uses various literary works and film by and about members of minority groups to understand the minority experience within a majority culture. Groups which are studied include Jews, Hispanics, Native Americans, women, Asians and Asian-Americans, members of the LGBT community, Africans and African-Americans. In addition to reading, assignments take the form of journals, reaction papers, quizzes, tests, and projects.

MODERN FICTION

PREREQUISITE: ENGLISH 9 & 10
GRADE LEVEL: 10-12

This course provides a thought-provoking study of popular thematic genres of modern fiction such as mystery, fantasy, and science fiction. Students will focus on critical reading and thoughtful examination of short stories, novels, and film selections. Activities will be assigned defining the genres using examples from the selections studied in class.

SPORTS AND LITERATURE

PREREQUISITE: ENGLISH 9 & ENGLISH 10
GRADE LEVEL: 11-12

This course will study the role of sports in our culture – the competition, the struggle, success and disappointment through an examination of contemporary and classic sports writing as well as across a variety of genres, including novels, biographies, poetry, short stories, drama, film, and magazine and newspaper journalism. Students may engage in focused study of a sport or genre and practice literary analysis and original expository writing on sports related subject matter. Students will read non-fiction and fiction as a class, in literature circles and/or independently.

Family Consumer Sciences

CHILD DEVELOPMENT
GRADE LEVEL: 9- 12

The purpose of this course is to help the student better understand children including their physical, intellectual, social, emotional and moral development. Students gain skills and knowledge about how to provide meaningful interactions with children, while thinking about their futures in relationship to parenthood and career choices involving children. The high school students teach and interact with elementary school children for "hands on" experience at Williamsburg Elementary School.

CLOTHING I
GRADE LEVEL: 9- 12

This course is designed for the student who wants to create clothing, home furnishings, or accessories out of fabric. Students will learn basic construction skills in a lab setting. Students will develop skills necessary to work and care for a variety of fibers. A great deal of freedom for individual interests will be allowed when choosing projects. This is a project-oriented class.

CLOTHING II
PREREQUISITE: CLOTHING I
GRADE LEVEL: 9-12

Clothing II is designed for the student who wants to continue to build upon skills learned in Clothing I. Students will pursue individual interests and construct individualized projects in clothing, home furnishings, or accessories while applying new techniques and skills. Current technology will be utilized, including sergers, computerized sewing machines, and embroidery machines. Individualized projects with an emphasis on gaining and improving clothing construction skills are the primary focus of this class.

FAMILY LIVING
GRADE LEVEL: 9-12

This course is designed to prepare students for multiple roles of adult life. Emphasis is placed on development as an individual, as a family member, and as a part of society. Family living examines the family life cycle from birth to death, including all aspects of life: personality development, communication, relationships with family and friends, mate selection, divorce and marriage, handling crises, and aging and death.

FCS SMALL BUSINESS
GRADE LEVEL: 9-12

This course is designed for the student interested in the actual "hands-on" management of a small food-related business. Students will focus on employability skills and product development. This will include professionalism, working with others, communication, interview skills, and critical thinking. Students will also create and produce their own product to be sold in the football concession stand. Product development skills to be learned include purchasing, pricing and profit margin and analysis. Students will be empowered to actually supervise a small business.

FINANCIAL LITERACY
GRADE LEVEL: 9-12

The theme of this class is to "take charge of your finances." The course uses a family-based approach to teaching financial literacy. The student will learn and improve skills needed for money management. A myriad of financial topics will be covered relating to the many areas of life. Goal setting will be a foundation to applying skills in these areas. A variety of learning activities, projects, and simulations will be explored.

FOODS AND NUTRITION I
GRADE LEVEL: 9- 12

This course is designed for the student who wants to learn more advanced food preparation skills and/or is interested in going into a nutrition or culinary arts career. Areas of study may include nutrition; fruits and vegetable science; meat, poultry and fish; stocks, soup, and sauces; global cuisine; and careers in the food industry.

FOODS AND NUTRITION II
PREREQUISITE: FOODS AND NUTRITION I
GRADE LEVEL: 9- 12

This course is designed for the student who wants to learn more advanced food preparation skills and/or is interested in going into a nutrition or culinary arts career. Areas of study may include nutrition; fruits and vegetable science; meat, poultry and fish; stocks, soup, and sauces; global cuisine; and careers in the food industry.

FOODS AND NUTRITION III

PREREQUISITE: FOODS AND NUTRITION I/II
GRADE LEVEL: 9-12

This course is designed for the student interested in more advanced culinary arts skills. Emphasis is placed on detailed exploration including the science of pies, cakes, cookies, yeast breads, and candies. Culinary careers will be highlighted throughout the course. Time will be spent studying meal planning and preparation to operate the Raider Restaurant during this course.

INTERIOR DESIGN

GRADE LEVEL: 9-12

This course is designed for the student interested in learning about housing and interior design either as a career or for personal use. The student will work with surface treatments (carpet, draperies, upholstery, wallpaper, etc.) in applying the design elements (color, line, texture, shape and form) and principles of design (balance, rhythm, proportion, emphasis, unity and variety) while furnishing a "home". Other topics covered include housing needs and choices, history of housing, interpreting and creating floor plans, arranging furniture, energy efficiency and careers. Students will draft floor plans and coordinate furnishings.

INTRODUCTION TO COLLEGE

GRADE LEVEL: 10-12
PSEO-KCC CREDIT- 1 CREDIT

This course is designed to introduce students to the world of college. Students who are considering attending college after high school are encouraged to take this course. Topics covered may include college applications, finding and applying to colleges, housing or dorm living, social pressures, good study habits, personal financial management and self-advocacy. Students also explore individual strengths, strategies for solidifying personal responsibility, college readiness/academic success strategies, career readiness/vocational goals for students as they identify a college program or major. The course emphasizes differences between high school and college expectations. Identifies appropriate career areas. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

MENU PLANNING

GRADE LEVEL: 10-12
PSEO-KCC CREDIT- 1 CREDIT

Studies the principles of menu marketing and management. Students write and analyze menus for various population groups, types of food service facilities and service styles, then design a menu cover. Upon successful completion of a national test, students are certified by the National Restaurant Association Educational Foundation (this is optional). This course is one of three courses in The Culinary Academy offered through Kirkwood Community College . Completion of the academy fulfills two course requirements for Kirkwood's Restaurant Management and Culinary Arts programs. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

NUTRITION

GRADE LEVEL: 10-12
KCC CREDIT- 1 CREDIT

Reviews basic nutritional concepts in relation to current health concerns and the food service industry. Includes practice in recipe and menu modification to improve nutrition. Upon successful completion of a national test, students are certified by the National Restaurant Association Educational Foundation. This course is one of three courses in The Culinary Academy offered through Kirkwood Community College. Completion of the academy fulfills two course requirements to Kirkwood's Restaurant Management and Culinary Arts Programs. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PARENTING

GRADE LEVEL: 9-12

This course is designed to help students look at different aspects of parenting and parenthood. Philosophies of parenting techniques are explored. The focus is to encourage the student to think about parenting, the many choices and responsibilities with such a role, and how one can be an effective parent. Myths of parenting along with legal consequences of child neglect and abuse will be studied. How to provide a positive environment for development from conception to 18 years will be explored. Students will study positive parenting skills to aid in nurturing responsible self-disciplined children capable of critical thinking.

QUICK COOKING

PREREQUISITE: FOODS AND NUTRITION I
GRADE LEVEL: 9-12

This course is designed for the student interested in learning how to prepare nutritious meals in a minimum amount of time. The focus will be on cooking foods and creating menus for today's fast paced life-style. Students will practice preparing foods based on limited time, space, equipment and money.

SAFETY AND SANITATION

PREREQUISITE: NONE
GRADE LEVEL: 10-12
KIRKWOOD CREDIT

This Kirkwood course is one of three courses in the Culinary Academy. Upon satisfactory completion of Nutrition, Menu Planning and Safety and Sanitation, the student may fulfill two course requirements to Kirkwood's Restaurant Management and Culinary Arts Programs. This class is considered the "gatekeeper" class to a career in hospitality, regardless of your plan of study. Basic principles of bacteriology, food borne illness, sanitation, workplace safety, personal hygiene, food security, health regulations and inspections are studied. Students **must** complete the National Restaurant Association Educational Foundation certification exam to pass this course. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

SKILLS FOR LIFE I

GRADE LEVEL: 9-12

Skills for Life I is a comprehensive course designed to introduce students to three of the basic areas of study in family and consumer sciences education. Students will identify and investigate careers in each of these areas.

- **PERSONAL DEVELOPMENT** - studies issues of personal growth through topics such as decision making, goal setting, refusal techniques, and communication skills.
- **RELATIONSHIPS** - explores issues of concern to teens' self-esteem, changing relationships with peers, family and significant others. Sexual decisions, family changes, conflicts and emotions are explored.
- **FOODS/NUTRITION** -involves food preparation skills with emphasis placed on nutritious foods from the basic food groups. Skills acquired in labs include- food preparation, sanitation, and safety; use of equipment; and management skills.

SKILLS FOR LIFE II

GRADE LEVEL: 9-12

Skills for Life II is a comprehensive course designed to introduce students to five of the basic areas of study in family and consumer sciences education. Students will identify and investigate careers in each of these areas:

- **MANAGING/BUYING** - includes identifying personal resources of time and money and managing those resources. Other topics include the market place, learning how to shop for price and quality, and understanding consumer rights and responsibilities.
- **CLOTHING** - introduces design, fibers and fabrics, care of clothing along with clothing construction while using the conventional sewing machine.
- **CHILD CARE/DEVELOPMENT** - includes the development of the child from birth to age six. This unit covers the principles and skills involved in child care responsibilities.
- **INTERIOR DESIGN** - is based upon challenges which students experience in making their own personal space more attractive and enjoyable. Principles of art and elements of design are introduced and applied.

SINGLE LIVING

GRADE LEVEL: 9-12

This course is designed for the student who wants to gain practical skills for living on their own. The student will have an opportunity to improve skills in the following areas: goal setting; renting and furnishing an apartment; choosing and communicating with roommates; budgeting and consumerism; clothing care; and simple food preparation. This is a great opportunity to learn many necessary survival skills in one short term.

FINE ARTS/PERFORMING ARTS

I. **No more than <u>one</u> <u>art</u> <u>class</u> may be taken during <u>one</u> <u>term</u>, except <u>seniors</u> may take 2 art classes during one term.**
II. **Must take Art Fundamentals first before <u>any</u> advanced high school art course.**
III. **Examples of artwork for each class can be seen at:**
http://williamsburgart.blogspot.com/p/classes-offered-at-williamsburg-jr-sr.html

ART FUNDAMENTALS
GRADE LEVEL: 9-12

The basic fundamentals and elements of art will be explored in this introductory class. Beginning projects of the advance courses will be offered. Areas of study will be drawing, painting, ceramics, printmaking, and jewelry and graphic art. **<u>This class must be taken before any other high school art course.</u>**

ADVANCED ART
PREREQUISITE: COMPLETION OF FOUR ART CLASSES
GRADE LEVEL: 11-12

Advanced Art is a course that will be planned, researched, and carried out by the student with the teacher's guidance and approval in the areas of interest. The areas of interest (projects) must have been taken in previous years of senior high art. This is a course for only the serious art students who want to continue in the world of art. The class will be set up on a schedule of assignments with due dates. Both teacher and student signature of agreement is required. A portfolio will be an option for interested students as an assignment in this class. **STUDENTS ARE ALLOWED TO TAKE THIS ONCE IN A SCHOOL YEAR.**

CERAMICS
PREREQUISITE: ART FUNDAMENTALS
GRADE LEVEL: 9-12

The study of ceramics will be directed toward the art of pottery. Methods of forming and building pottery will be explored such as hand building and wheel thrown works. Among the areas of study will be 6" cylinder, bowl, pinch pot, drape, slab container and mixed container.

CONCERT CHOIR
TREBLE CHOIR AND MENS ENSEMBLE
YEARLONG COURSE
GRADE LEVEL: 9-12

High School Concert Choir is a <u>YEARLONG</u> course, which meets daily. Concert Choir is the main vocal performing ensemble at Williamsburg High School. In Concert Choir, the components of intelligent musicianship achieved through singing are taught, as well as the development of life skills such as working together, developing self-discipline and gaining self-confidence. The Choir performs at four public concerts, Iowa Large Group Contest, and at high school graduation. Concert Choir meets on Monday, Wednesday, and Friday. Men's and Treble Choirs meet on Tuesday and Thursday. The Concert Choir goes on tour every three to four years. Along with performing groups, students can participate in State Solo-Ensemble Contest, Dorian Honor Choir at Luther College, and the Simpson Honor Choir. The Show Choir, "Sound Attraction", is made up of members from the Concert Choir. They perform at concerts, State Contest, several Show Choir Invitationals, local community functions, and the annual Dinner Show. Members of the Sirens and EnHarmony are selected from the Show Choir. These select musicians want to sing in more performance avenues.

DRAWING
PREREQUISITE: ART FUNDAMENTALS
GRADE LEVEL: 9-12

All students who plan to take art courses other than Art Fundamentals are encouraged to take Drawing as an aid to better understand form and design. The course will include many uses of line, exploring areas of negative lines, self-portraits, perspective, ink washes, crosshatching and colored pencil/chalk.

GRAPHIC ART

PREREQUISITE: ART FUNDAMENTALS
GRADE LEVEL: 11-12

This course is intended to be a general introduction to commercial design. It will provide instruction in the basic skills of commercial design: lettering, logo, letterheads, poster, package design and ad design. These skills will be applied in a hands-on experience and some computer applications.

HIGH SCHOOL BAND

YEARLONG COURSE
PREREQUISITE: PRIOR EXPERIENCE ON BAND INSTRUMENT *OR* ***CONSENT OF INSTRUCTOR***
GRADE LEVEL: 9- 12

High School Band is a <u>YEARLONG</u> course, which meets daily. Members of the band make up the Williamsburg Concert Band, Raider Marching Band, Williamsburg Jazz Bands, Williamsburg Wind Ensemble and the Raider Pep Band. The Raider Marching Band meets during football season both during school and on selected early "music mornings." The band performs at all home football games and at several marching band festivals held on selected Saturdays throughout the fall. The Williamsburg Concert Band begins rehearsals after football season and presents multiple concerts per year as well as participating in the Iowa State Large Group Festival in the spring. Membership in Williamsburg's Jazz Outlet Jazz Band is determined by audition in the spring or fall. Members of Jazz Outlet are expected to attend several festivals on selected days(possible weekends) throughout the winter and spring. Jazz outlet rehearses on selected mornings before school. The Williamsburg Wind Ensemble is the select concert band. Membership in the Wind Ensemble is through chair placement auditions for the Concert Band. Wind Ensemble rehearses once a week during Concert Band. The Raider Pep Band is a volunteer band that performs at varsity basketball games. Membership in the high school band affords students many individual and small group performance opportunities including state solo/ensemble festival, honor bands, and performances at many community events.

JEWELRY

PREREQUISITE: ART FUNDAMENTALS
GRADE LEVEL: 10-12
COURSE DESCRIPTION: The course will be devoted to the creation of jewelry. Methods of making jewelry will be construction, overlay and forming. The process of sawing, soldering, building and stone mounting will be learned and applied. Area of study will be texture band ring wire project, stone mount ring, flat metal wire stone project.

PAINTING

PREREQUISITE: ART FUNDAMENTALS
<u>DRAWING IS STRONGLY RECOMMENDED</u>
GRADE LEVEL: 9-12

This course will deal with different styles and types of painting. Mediums to be explored will be watercolor, oils, and acrylics along with different painting surfaces (masonite, canvas panel and stretch canvas).

PRINTMAKING

PREREQUISITE: ART FUNDAMENTALS
GRADE LEVEL: 9-12

The student will learn the skills necessary to reproduce original drawings and designs in the various areas of printmaking techniques. The areas of printmaking to be studied will be mono prints, 2-color cardboard, 3-color linoleum/wood cut reduction, 1-color photo silkscreen, and 1-color dry point/etching.

SCULPTURE

PREREQUISITE: ART FUNDAMENTALS
GRADE LEVEL: 9-12

Sculpture is an exploration into 3-dimensional space, objective and non-objective projects. Projects will deal with clay (additive/subtractive methods), plaster (subtractive method), wire (additive method), cardboard (additive method).

Foreign Language

SPANISH I

GRADE LEVEL: 9- 12
YEAR LONG COURSE

This class is open to all high school students in grades 9-12. This course is intended for students who have personal interest in Spanish and college-bound students. Students will engage in daily practice and preparation in order to prepare for assessments. Students will be assessed on standards pertaining to speaking, listening, reading, writing, and cultural understanding. Essential learnings for this course are: the verbs ser and estar, regular present tense verbs, subject pronouns, Spanish phonetics, sentence structure, and interrogative words (questions).

SPANISH II

PREREQUISITE: Proficient in 80% of Spanish I Standards
GRADE LEVEL: 9-12
YEAR LONG COURSE

Students will review the key concepts from Spanish I and resume studies of the Spanish language. This course is intended for students who have personal interest in Spanish and college-bound students.
Emphasis will be placed on vocabulary expansion, reading comprehension, oral and written communication in contextualized situations. Students will engage in daily practice and preparation in order to prepare for assessments. Students will be assessed on standards pertaining to speaking, listening, reading, writing, and cultural understanding. Topics covered will include celebrations, daily routines, houses, food, and travel. Essential learnings for this course are: use of the verbs ser and estar, irregular present tense verbs, future tense verbs, possessive adjectives, and creating sentences with multiple verbs.

SPANISH III

PREREQUISITE: Proficient in 80% of Spanish II Standards
GRADE LEVEL: 11-12
2-TERM COURSE

Students will review previously learned concepts and will resume a more in-depth study of the Spanish language. Emphasis will be placed on vocabulary expansion, reading comprehension, oral and written communication in contextualized situations. The majority of the classroom instruction, as well as student dialogue, will take place in Spanish. This is an excellent class for students who would like to meet college graduation requirements regarding the study of foreign language and for students who would like to
travel with the Spanish Club in 2017 (junior/senior status required). Topics covered will include: travel, food preparation, bartering, and childhood. Essential learnings: preterit tense (past), imperfect tense (past), indirect object pronouns, direct object pronouns.

SPANISH IV

PREREQUISITE: Proficient in 80% of Spanish III Standards
GRADE LEVEL: 9-12
2-TERM COURSE

Students will review previously learned concepts and begin to polish oral and written communication skills. Students will work on continued reading comprehension through a variety of excerpts and other literary works from a cross-section of authors. Classroom instruction, as well as student dialogue, will take place in Spanish. This is an excellent class for students who would like to fulfill college graduation requirements regarding the study of foreign language and for students who would like to
travel with the Spanish Club in 2017 (junior/senior status required). Topics covered will include: storytelling, art, health, household items, and nature. Essential learnings: multiple-clause sentences, use of preterit and imperfect tenses, formal speaking, and Usted commands.

SPANISH V

PREREQUISITE: Proficient in 80% of Spanish IV Standards
GRADE LEVEL: 12
2-TERM COURSE

Spanish V is available for students passing Spanish 4 with a C- (70%) or higher and/or students that can demonstrate Spanish speaking, reading, writing, & listening proficiency skills equivalent to a student completing Spanish 4. The course will be primarily conducted online with all tests and quizzes being submitted electronically to the AP Teacher and graded by him/her. The classroom portion will be conducted mainly in Spanish and will provide tutoring and speaking opportunities as well as supplementary reading, culture, and writing practice. A successful student will be independent, intrinsically motivated, and interested in continuing to develop and hone Spanish skills. Areas of focus: tense conjugation and use, grammatical accuracy, broadening vocabulary, cultural awareness and sensitivity, history/contributions of Hispanics/Latinos. AP test preparation and college placement test preparation will be provided. Students successfully completing the course will be eligible to take the AP Spanish test in May. This is an excellent class for students who would like to travel with the Spanish Club in 2017 (junior/senior status required).

HEALTH EDUCATION

HEALTH AND YOU
GRADE LEVEL: 9-12

Health and You is a required course and must be passed in order to graduate from Williamsburg High School. This course encourages students both male and female, to take positive actions regarding their own social, emotional, mental and physical well-being. The student's role in this learning process is active and personal. The dynamic life process, which includes, self-esteem, responsible decision making and goal setting is covered throughout the course. Concepts of interpersonal relationships, family life, stress management; including suicide prevention, substance use and non-use, human sexuality, prevention and control of sexually transmitted diseases; consumer health, emotional and social health are also covered. Students are encouraged to develop a solid understanding of wellness and how to make it a life-long habit.

CONTEMPORARY HEALTH
GRADE LEVEL: 11-12

Contemporary Health may be substituted for Health and You to meet graduation requirements. This course has the same state-mandated topics as "Health and You". However, it is geared to the older student with a greater emphasis on relationships and adult life. Different audio, visual and learning materials will be used in this course so a student may opt to take both courses if desired. The student will have an active and personal role in learning process while social, emotional, mental, and physical well being are studied.

INDUSTRIAL/TECHNOLOGY EDUCATION

ADVANCED CONSTRUCTION MATERIAL PROCESSING

FORMERLY WOODS II
PREREQUISITE: CONSTRUCTION MATERIAL PROCESSING
GRADE LEVEL: 9- 12

This class was formally called (**WOODWORKING II).** This course continues to expand upon the skills and techniques acquired in Construction Material Processing to include real world employability skills. Construction skills that will be acquired will included: machine skills and equipment usage, hand and power tool capabilities, time management, interpreting plans, specs and working drawings, problem solving and conflict resolution, and material usage.

BUILDING CONSTRUCTION SYSTEMS I

PREREQUISITE: CONSTRUCTION TECHNOLOGY
GRADE LEVEL: 10-12

This class was formally called **(BASIC CONSTRUCTION II).** Provides introductory lab experience in tool and equipment use, basic residential construction procedures and safety for those with little or no construction experience. Includes foundation systems, floor systems, basic wall construction, roof systems, electrical layout and theory, heating and air handling basics, and plumbing systems.

COMPUTER INTEGRATED MANUFACTURING (CIM)

SEMESTER COURSE
GRADE LEVEL: 9-12
KCC CREDIT-3 CREDITS

Manufactured items are part of everyday life, yet most students have not been introduced to the high tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system. Teaches robotics and automated manufacturing concepts by creating three-dimensional designs with modeling software, then producing actual models of student designs. This course was developed by Project Lead the Way. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

CONSTRUCTION MATERIAL PROCESSING

FORMERLY WOODS I
GRADE LEVEL: 9- 12

This class was formally called (WOODWORKING I) Students will continue developing team building skills. This is the foundational course for the architecture and construction cluster. Students will learn proper construction terminology and safe instruction in hand and power tool usage through project construction. Students will experience plan development, reading project drawings, material identification, cost estimation and production (that leads into and includes an individual building project).
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CONSTRUCTION TECHNOLOGY

FORMERLY CALLED BASIC CONSTRUCTION
PREREQUISITE: CONSTRUCTION MATERIAL PROCESSING
GRADE LEVEL: 10- 12

This class was formally called **(BASIC CONSTRUCTION I).** This course is designed to give students an introduction to construction systems in today's society. Students will be responsible for the construction of individual and/or group project(s) built throughout the semester. The project(s) will be determined by the needs and wants of the class, community, and school district as well as the experience of the classmates involved. There will be a wide range of topic; job-site safety, concrete construction, rough framing construction, roofing construction, interior construction, electrical, fine finish carpentry, and other topics within the construction cluster. Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.

GAS METAL ARC WELDING SHORT CIRCUIT TRANSFER

GRADE LEVEL: 11-12
PSEO-KCC CREDIT-2 CREDITS

Focuses on proper weld safety, machine setup and welding techniques of gas metal arc welding short-circuiting transfer. Students perform American Welding Society compliant welds on carbon steel, in flat, horizontal, vertical and overhead positions, this course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. This course aligns with sense level I module 5, gas metal arc welding key indicators 1-7. Also aligns to sense level 3, drawing and welding symbol interpretation key indicator 3. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

GAS METAL ARC WELDING SPRAY TRANSFER

GRADE LEVEL: 11-12
PSEO-KCC CREDIT-2 CREDITS

Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Spray Transfer. Students perform American Welding Society compliant welds on carbon steel in flat and horizontal positions. This course will prepare student to take an AWS welding certification test, which is recommended for its successful completion. It aligns with SENSE Level I, Module 5-Key Indicators 1, 2, and 8-12. Also aligns to SENSE Level 3, Drawing and Welding Symbol Interpretation, Key Indicator 3. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

GAS TUNGSTEN ARC WELDING (GTAW) FOR CARBON STEEL

GRADE LEVEL: 11-12
PSEO-KCC CREDIT-2 CREDITS

Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Spray Transfer. Students perform American Welding Society compliant welds on carbon steel in flat and horizontal positions. This course will prepare student to take an AWS welding certification test, which is recommended for its successful completion. It aligns with SENSE Level I, Module 5-Key Indicators 1, 2, and 8-12. Also aligns to SENSE Level 3, Drawing and Welding Symbol Interpretation, Key Indicator 3. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

HOUSE CONSTRUCTION/BUILDING TRADES

PREREQUISITE: ADV. CONSTRUCTION MATERIAL
GRADE LEVEL: 12
THIS COURSE IS HELD AT ENGLISH VALLEY

THIS COURSE WILL BE HELD AT ENGLISH VALLEY HIGH SCHOOL. STUDENTS WILL NEED TO HAVE THEIR DRIVER'S LICENSE IN ORDER TO ENROLL. This course is a practical study of building concepts with the main purpose to acquaint students with building terms and techniques used in the residential construction industry. Student interested in construction, engineering, or business careers are encouraged to enroll. Students will experience all phases of construction from footings to finishing carpentry. The course includes foundation, framing, plumbing, electricity, siding, roofing, and finishing carpentry. The students will use textbooks, classroom instruction and practical experience to learn construction techniques. Students are required to supply their own hammer, tape measure, square, utility knife, nail set, pencil, safety glasses, rubber boots, suitable shoes and nail apron.

INTRO TO MATERIAL PROCESSING

1-TERM COURSE
GRADE LEVEL: 9-12
In this course, students become familiar with the materials, processes, tools, machines, and practices of the wood and metal industries. During this course, which is both project and objective oriented, students gain hands-on experience in the operation of machines and tools which are common to construction and manufacturing.

INTRO TO WELDING SAFETY

GRADE LEVEL: 11-12
KCC CREDIT-1 CREDIT

This course will cover the basics of safety and health within the welding profession and orientation to the occupation. This course aligns to sense level I, module I, occupational orientation and module 2, safety and health of workers. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

LIGHT MACHINING FOR MAINTENANCE TRADES

SEMESTER LONG COURSE
GRADE LEVEL: 10-12
PSEO-KCC CREDIT- 4 CREDITS

Covers machine/shop safety, machine theory, blueprint reading, tolerances, tooling selection, machine feed and speed, and proper usage of manual knee mills and manual lathes. Emphasizes print reading, mill and lathe usage, and machine maintenance, in a hands-on lab setting. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

METALS

PREREQUISITE: INTRO TO MATERIAL PROCESSING
GRADE LEVEL: 9- 12

This course is designed for advanced metals procedures in sheet metal, lathe, and millwork, metal fabrication and layout building upon skills developed in Metals I. Emphasis will be placed on machine and hand tool safety.

METAL FABRICATION

PREREQUISITE: WELDING I
GRADE LEVEL: 9- 12

This course will deal with metal fabrication. The skills that were learned in Welding I will be used to fabricate metal welding projects. The students will also learn brazing, soldering, paddling along with overhead and vertical welding.

PRODUCTION TECHNOLOGY

PREREQUISITE: CONSTRUCTION MATERIAL PROCESSING
GRADE LEVEL: 9-12

This course is made up of several areas of involvement which allow the student to work with many tools, materials and processes used in manufacturing industries. The primary focus of the course involves setting up an enterprise wherein a product is designed, produced, advertised and sold.

SHIELDED METAL ARC WELDING

GRADE LEVEL: 11-12
PSEO-KCC CREDIT
Focuses on safety, amperage settings, polarity and the proper selection of electrodes for the shielded metal arc welding process. Students will perform American Welding Society compliant welds on carbon steel, using visual and destructive methods for determining weld quality. This course aligns to SENSE Level 1 Module 4 - Key Indicators 1-7 for the flat and horizontal positions, as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.
STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.

SMALL ENGINES

GRADE LEVEL: 9- 12

This course will introduce the students to the engine concepts of both four cycle and two cycle engines. Class involves the disassembly and overhaul of a small engine. Students are required to bring their own small engine for a project.

WELDING I

GRADE LEVEL: 9- 12

This course is a basic beginning to the world of welding. This class will deal with five basic joints: butt, lap, T, corner, edge. Each weld will be performed with the arc and mig welders. The students will also be cutting metal with a torch and plasma cutter.

Life/Physical Science

REQUIRED

EARTH SCIENCE
GRADE LEVEL: 9
2 TERM COURSE

Earth Science is a required course and must be passed in order to graduate from Williamsburg High School. This course is designed to give a comprehensive study over geology, astronomy, climatology and meteorology. More specifically, this course emphasizes an investigative/inquiry approach to learning about the beginnings and evolution of our universe and solar system, earth history, plate tectonics, carbon cycle, fossil fuels, global warming and weather. Most topics are studied in real world contexts with emphasis placed on researching solutions to various environmental problems when applicable.

INTRODUCTION TO CHEMISTRY
PREREQUISITE: EARTH SCIENCE
GRADE LEVEL: 9-12

Introduction to Chemistry is a required course and must be passed in order to graduate from Williamsburg High School. Chemistry is the study of how substances react to form new substances. Concepts include conservation of mass, chemical bonds, reaction types and rates, , equilibrium and thermochemistry. This course is very hands-on and will include lab work, calculations, lab reports, presentations, and tests. This course is designed for freshmen and sophomores who have completed Earth Science, and can be taken concurrently with Introduction to Physics.

INTRODUCTION TO PHYSICS
PREREQUISITE: EARTH SCIENCE, GEOMETRY
GRADE LEVEL: 9 -12

Introduction to Physics is a required course and must be passed in order to graduate from Williamsburg High School. Physics is the science which deals with physical changes and physical laws. The topics to be included are motion, forces, momentum, energy, and heat transfer. This course will involve labs, projects, calculations, and tests. This course is designed for sophomores or juniors who have completed Earth Science, and can be taken concurrently with Introduction to Chemistry. Students choosing to accelerate in both science and math may be prepared for this course in their freshman year.

GENERAL BIOLOGY
PREREQUISITE: INTRO TO CHEMISTRY
GRADE LEVEL: 9-12
2 TERM COURSE

General Biology is a required course and must be passed in order to graduate from Williamsburg High School. This course is designed to develop an understanding of the scientific enterprise and the characteristics of life. Topics covered throughout the course include the structure and function of living systems, molecular genetics, interdependence of the behavior of organisms, interdependence of organisms, biological evolution and the nature of science. Student understanding will be promoted through projects, papers, presentations, laboratory investigations, and evaluations. Sophomores, juniors and seniors who have completed Introduction to Chemistry should register for this course. Students who have accelerated in science may be prepared for this course in their freshman year.

ELECTIVES

ADVANCED CHEMISTRY
PREREQUISITE: INTRO. TO CHEMISTRY
GRADE LEVEL: 9 - 12

This is a continuation of chemistry for students interested in attending a four-year college or pursuing a career in science. It is a prerequisite for Advanced Placement Chemistry and Advanced Placement Biology. Concepts include conservation of mass, chemical bonds, reaction types, reaction rates, equilibrium, and thermochemistry. Labs, technical writing, presentations, and tests will all be a part of the class. This course is designed for students who have completed Earth Science and Introduction to Chemistry, and can be taken concurrently with Introduction to Physics.

ADVANCED PHYSICS

PREREQUISITE: INTRO. TO PHYSICS, ALGEBRA II
GRADE LEVEL: 11-12

This course is a continuation of Introduction to Physics for students interested in earning the required science credits for entrance to a 4-year college or university, or those students wishing to take Advanced Placement (AP) Physics. Because physics is a fundamental science and is based in mathematics, it is strongly recommended students take math through Algebra II prior to this course. Each day the class will look at new principles, apply them in practical situations and use them to solve problems. Topics include forces, linear motion, work and energy, circular motion, heat and temperature, sound, light and electricity.

ADVANCED PLACEMENT BIOLOGY

PREREQUISITE: ADVANCED CHEMISTRY & HUMAN ANATOMY
GRADE LEVEL: 11-12
YEARLONG COURSE

This AP Biology course is designed to enable students to develop advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across areas of study. This course is equivalent to a two-semester college introductory biology course which is intended to prepare students for the study of advanced topics in subsequent college courses. This course is divided into seven major units that span all levels of biological organization, from atoms and molecules, through cells and organs and into interactions among and between organisms. These units have been developed with the four big ideas of the AP biology curriculum framework in mind: Big Idea 1: Evolution, Big Idea 2: Cellular Processes: Energy and Communication, Big Idea 3: Genetics and Information Transfer Big Idea 4: Interactions. Students will need to understand that science is more than a collection of facts; it is a process of observing and understanding the natural world. Discussion of the content of the curriculum are integrated with projects and laboratory activities to help students develop enduring understandings. The design of laboratory components keeps the seven science practices outlined in the AP biology curriculum framework in mind: **Science Practice 1:** The student can use representations and models to communicate scientific phenomena and solve scientific problems. **Science Practice 2:** The student can use mathematics appropriately. **Science Practice 3:** The student can engage in scientific questioning to extend thinking or to guide investigations within the context of the AP course. **Science Practice 4:** The student can plan and implement data collection strategies appropriate to a particular scientific question. **Science Practice 5:** The student can perform data analysis and evaluation of evidence. **Science Practice 6:** The student can work with scientific explanations and theories. **Science Practice 7:** The student is able to connect and relate knowledge across various scales, concepts and representations in and across domains.

ADVANCED PLACEMENT CHEMISTRY

PREREQUISITE: ADV CHEMISTRY
GRADE LEVEL: 11-12
2 TERM COURSE

AP Chemistry will move quickly through concepts learned in prior chemistry classes and will focus on college-level work. Units will include the following six big ideas: chemical elements as the fundamental building materials of matter, arrangement of atoms and the forces between them, rearrangement of atoms and transfer of electrons, molecular collisions and reactions rates, thermodynamics and equilibrium. A strong math and reading background is helpful, as are high-quality lab skills. Students will be asked to think critically and work in more advanced lab situations so that successful students may be able to earn college lab credit. In addition, the AP Exam will be taken in May, which may earn students college credit. Another possibility is that students who perform well in this class may do well on college placement exams or CLEP test well. This course is highly recommended for any college-bound student interested in a science-related career.

ADVANCED PLACEMENT PHYSICS

PREREQUISITE: ADVANCED PHYSICS, ALGEBRA II
GRADE LEVEL: 11-12
2 TERM COURSE

AP Physics 1 in an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Algebra and Geometry skills are important to this course. Other math and science courses are highly recommended as prerequisites to this course.

ANALYSIS OF WORLD EVENTS: SCIENTIFIC

GRADE LEVEL: 9-12

This is a class designed to investigate environmental, scientific or even political issues that are important for our lifetime. Real world events involving potentially controversial decisions can be analyzed through a scientific approach. An emphasis is placed on critical thinking skills as students investigate conspiracy theories, mysteries, scientific studies and scientifically related events. Students often research conspiracies as a platform to investigate scientifically related issues where more than one viewpoint exists. Conspiracies generally have a negative connotation but sometimes these investigators are exposing things that have been covered up. If that's true, then why? This is your chance to research and defend conclusions and/or arguments you feel are important for the public to know. The main goal of this class is to develop college readiness skills while conducting long term investigations. Topics are student selected as long as some connection is made to the scientific world.

ENVIRONMENTAL SCIENCE

PREREQUISITE: GENERAL BIOLOGY
GRADE LEVEL: 11-12
PSEO-KCC CREDIT-3 CREDITS

Environmental Science is an introductory-level college science course. In this class you will explore major environmental topics including: biotechnology, climate change, fossil fuel use, human population growth, land utilization, pollution, resource management, soil degradation, and toxicology. You will learn concepts from a variety of sciences, like biology, chemistry, geology, physics, and sociology. You will practice analyzing and synthesizing concepts, writing fact-based opinions, and applying your learning to real environmental issues. Many of these issues are of *immediate* and *local* concern (in Linn, Johnson, Benton, and adjacent counties).

Our natural environment is made of many complex systems. To make informed choices, you will learn how the physical and biological aspects of our environment interact. Furthermore, you will see how science affects and is affected by our economy, society, and politics. Your understanding of the environment and successfully dealing with environmental problems will depend upon your involvement with the science. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

ENVIRONMENTAL SUSTAINABLITY (ES)

2 TERM-SEMESTER COURSE
PREREQUISITE: GENERAL BIOLOGY
GRADE LEVEL: 10- 12

Environmental Sustainability (ES) is an interdisciplinary specialty-engineering course in the PLTW Engineering pathway. In ES, students investigate and design solutions in response to real-world challenges related to clean and abundant drinking water, food supply issues, and renewable energy. Applying knowledge of engineering, biology, and ecology through hands-on activities and simulations, students research and design potential solutions to these true-to-life challenges. The diversity of subject matter has the potential to bring together in a single classroom a group of students with interests in a wide range of STEM subjects. The demand is high and the need is great for both environmental and biological engineering professionals. This course provides a solid foundation in both disciplines, taking students from introduction to in-depth exploration. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

HUMAN ANATOMY

PREREQUISITE: GENERAL BIOLOGY
GRADE LEVEL: 10-12
2 TERM COURSE

This course is intended to meet the needs of students who display a high interest in the field of biology or other science field and would be appropriate preparation for nursing or medical postsecondary education. The students will gain a better understanding of the human body in health and disease.

PRINCIPLES OF ENGINEERING (POE)-PLTW

2 TERM-SEMESTER COURSE
GRADE LEVEL: 9-12
PSEO-KCC CREDIT-3 CREDITS

This PLTW course is designed for students to explore a wide variety of careers in engineering and technology. Using activities, projects, and problems, students learn first hand how engineers and technicians use math, science, and technology in an engineering problem-solving process to benefit people. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

Mass Communication

YEARBOOK I & II

GRADE LEVEL: 9-12
THIS IS A NON-CREDIT COURSE

The yearbook course has been designed to provide students with the journalism skills and the ability to apply those skills to the actual production of the yearbook. Units of study include teamwork, responsibility, brainstorming, content, coverage, concept, reporting, writing, headlines, captions, editing, photography, typography, design, graphics, finances, yearbook campaigns, advertising and distribution.

Actual work results in the current volume of the school's yearbook. The publication strives to maintain a tradition of excellence in which the school and the community can take pride.

Mastery of the goals and objectives fully verse staff members in all areas of publication production and students should be able to pursue journalism with a strong background either in their advanced studies or in a career.

This course is not taken for credit, but is offered during the school day. Students will be chosen through a selection process. Preference will be given to students who can enroll for two or more consecutive terms and have indicated publications or journalism as a possible career path. Students who commit to two or more consecutive terms will be given priority in selecting tasks and layout assignments. Students with a strong interest in graphic design and/or photojournalism are encouraged to explore this course's offerings. This class has limited enrollment

Some out of class time is required to sell ads, meet deadlines, and take photographs. Students enrolled in the course will also **be expected to work up to three weeks in June** to complete the book and meet final deadlines.

MATHEMATICS

ALGEBRA I (BLOCK)

PREREQUISITE: Proficient in 90% of MATH 8 Standards
GRADE LEVEL: 9-10
2-TERM COURSE

THIS IS AN ACCELERATED SEMESTER LONG COURSE. Algebra 1 is a course with an emphasis placed on the structure of mathematics meant and to improve the student's problem solving skills by applying concepts of algebra to problems that the student may face in everyday affairs. Algebra I consists of understanding algebraic terms; forming laws of operations; expressing functional relationships by means of equations, tables, and graphs; simplifying equations and fractions; solving systems of linear equations in two unknowns; simplifying algebraic expressions involving square roots, and radicals and solving quadratic equations.

ALGEBRA I (QS)- YEAR LONG

PREREQUISITE: Proficient in 80% of MATH 8 Standards
GRADE LEVEL: 9-12
ALL YEAR COURSE

THIS IS THE NORMAL PACED MATH COURSE. Algebra I is a course recommended for students who are interested in mathematics, and students who plan to continue post high school study. The emphasis of the course is placed on the structure of mathematics and to improve the student's problem solving skills by applying concepts of algebra to problems that the student may face in everyday affairs.
Algebra I consists of understanding algebraic terms; forming laws of operations; expressing functional relationships by means of equations, tables, and graphs; simplifying equations and fractions; solving systems of linear equations in two unknowns; simplifying algebraic expressions involving square roots, and radicals and solving quadratic equations.

ALGEBRA I A/B (2 YEARS)

PREREQUISITE: Proficient in 80% of MATH 8 Standards
GRADE LEVEL: 9-10
ALGEBRA IA IS AN ALL YEAR COURSE
ALGEBRA IB IS AN ALL YEAR COURSE

THIS COURSE IS PACED FOR MORE MATH DEVELOPMENT OVER A LONGER PERIOD OF TIME. Algebra I is a course recommended for students who are interested in mathematics, and students who plan to continue post high school study. The emphasis of the course is placed on the structure of mathematics and to improve the student's problem solving skills by applying concepts of algebra to problems that the student may face in everyday affairs.
Algebra I consists of understanding algebraic terms; forming laws of operations; expressing functional relationships by means of equations, tables, and graphs; simplifying equations and fractions; solving systems of linear equations in two unknowns; simplifying algebraic expressions involving square roots, and radicals and solving quadratic equations.

GEOMETRY

PREREQUISITE: Proficient in 80% of Algebra Standards
GRADE LEVEL: 9- 12
2-TERM COURSE

THIS IS AN ACCELERATED SEMESTER LONG COURSE. Geometry is the branch of mathematics that deals with the measurement, properties, transformations, and relationships of points, lines, planes, angles, circles, polygons, surfaces, and solids. With this course we hope to increase the student's knowledge of, and ability to visualize, two and three-dimensional figures. This course also includes units on logic, trigonometry, and vectors.

GEOMETRY (QS)

PREREQUISITE: Proficient in 80% of Algebra Standards
GRADE LEVEL: 9- 12
ALL YEAR COURSE

THIS IS THE NORMAL PACED MATH COURSE. Geometry is the branch of mathematics that deals with the measurement, properties, transformations, and relationships of points, lines, planes, angles, circles, polygons, surfaces, and solids. With this course we hope to increase the student's knowledge of, and ability to visualize, two and three-dimensional figures. This course also includes units on logic, trigonometry, and vectors.

GEOMETRY A/B (2 YEARS)

PREREQUISITE: Proficient in 90% of Algebra Standards
GRADE LEVEL: 9- 12
GEOMETRY A IS AN ALL YEAR COURSE
GEOMETRY B IS AN ALL YEAR COURSE

THIS COURSE IS PACED FOR MORE MATH DEVELOPMENT OVER A LONGER PERIOD OF TIME. Geometry is the branch of mathematics that deals with the measurement, properties, transformations, and relationships of points, lines, planes, angles, circles, polygons, surfaces, and solids. With this course we hope to increase the student's knowledge of, and ability to visualize, two and three-dimensional figures. This course also includes units on logic, trigonometry, and vectors.

ALGEBRA II

PREREQUISITE: Proficient in 80% of Geometry Standards
GRADE LEVEL: 9-12
2-TERM COURSE

THIS IS AN ACCELERATED SEMESTER LONG COURSE. This course is designed to not only review and extend the terminology, concepts, skills, and applications that were introduced in Algebra I, but also to introduce other types of relations and functions that are needed to create mathematical models for applications in the real world. Topics include linear and quadratic relations and systems, exponents and logarithms, trigonometry, polynomials, and probability.

ALGEBRA II (QS)

PREREQUISITE: Proficient in 80% of Geometry Standards
GRADE LEVEL: 9-12
ALL YEAR COURSE

THIS IS THE NORMAL PACED MATH COURSE. This course is designed to not only review and extend the terminology, concepts, skills, and applications that were introduced in Algebra I, but also to introduce other types of relations and functions that are needed to create mathematical models for applications in the real world. Topics include linear and quadratic relations and systems, exponents and logarithms, trigonometry, polynomials, and probability.

PDM (PRECALCULUS/DISCRETE MATH)

PREREQUISITE: Proficient in 80% of Algebra II Standards
GRADE LEVEL: 11-12
2-TERM COURSE

Pre-calculus topics include a review of the elementary functions, advanced properties of functions, polar coordinates, complex numbers, and introductions to the derivative and integral. Discrete mathematics topics include mathematical reasoning and logic and vectors in two and three dimensions. Mathematical thinking is a unifying theme employed throughout the course. Computers are used to help generate, illustrate, and analyze data and mathematical concepts. This course is highly recommended for those students that will need to enroll in calculus.

AP CALCULUS AB

PREREQUISITE: Proficient in 80%of PDM Standards
GRADE LEVEL: 11-12
2-TERM COURSE

This course is designed for those students that want to continue their mathematical preparation for college and have already completed all. Many fields such as engineering, economics, life science, mathematics, and physical science, build on the basic concepts of differential and integral calculus. This course will include a blend of verbal, numerical, graphical, and algebraic representations with emphasis on modeling and applications. Students enrolled in this course will take the Advanced Placement Calculus AB Exam.

AP CALCULUS BC

PREREQUISITE: CALCULUS AB
GRADE LEVEL: 11-12
2-TERM COURSE

This course is designed for those students that want to continue their mathematical preparation for college and have already completed all the prerequisites and Calculus AB. Many fields such as engineering, economics, life science, mathematics, and physical science, build on the basic concepts of differential and integral calculus. This course will include a blend of verbal, numerical, graphical, and algebraic representations with emphasis on modeling and applications. Specific topics will include advanced integration techniques, infinite series, Taylor series, and the calculus of parametric equations. Students enrolled in this course will take the Advanced Placement Calculus BC Exam.

AP STATISTICS

PREREQUISITE: Proficient in 80% of Algebra II Standards
GRADE LEVEL: 11-12
ALL YEAR COURSE

This course is designed for those students that want to continue their mathematical preparation for college and have completed through Algebra II. An introductory statistics course, similar to the AP Statistics course, is required for many college majors. This course will introduce students to the major concepts and tools used for collecting, analyzing, and drawing conclusions from data. Students completing this course will take the Advanced Placement Statistics Test.

SURVEY OF MATHEMATICS

PREREQUISITE: STUDENTS MUST TEST INTO THIS COURSE WITH COMPASS
GRADE LEVEL: 12
SEMESTER COURSE
PSEO-KCC CREDIT-4 CREDITS

Survey of Mathematics provides an overview of topics that include: sets, real number systems, ratios, proportions, percentages, geometry, algebra and functions. The course is intended for students wishing to enroll in a vocational or general studies program at a community college. This course will satisfy the prerequisite for Math and Society but cannot be used instead of Algebra II for regent university admission. Upon successful completion of the course students will earn credit both at WHS and Kirkwood Community College. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PROJECT LEAD THE WAY (PLTW): INTRODUCTION TO COMPUTER SCIENCE

GRADE LEVEL: 9-12

Designed for students who have never programmed before, ICS is an optional starting point for the PLTW Computer Science program. Students work in teams to create apps for mobile devices using MIT App Inventor®. They explore the impact of computing in society and build skills in digital citizenship and cybersecurity. Beyond learning the fundamentals of programming, students build computational thinking skills by applying computer science to collaboration tools, modeling and simulation and data analysis. In addition, students transfer the understanding of programming gained in App Inventor to text-based programming in Python® and apply their knowledge to create algorithms for games of chance and strategy. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PHYSICAL EDUCATION

GRADUATION REQUIREMENT: A TOTAL OF FOUR TERMS OF PHYSICAL EDUCATION ARE REQUIRED TO GRADUATE. NO LESS THAN NINE WEEKS SHOULD BE OF SWIMMING INSTRUCTION.

THE PHYSICAL EDUCATION REQUIREMENT MAY BE WAIVED FOR:

- **Medical reasons -- physical education waiver granted if requested by a licensed physician or chiropractor.**
- **Academic course conflict for juniors or seniors -- physical education waiver granted if a twelfth grade student has an unresolvable conflict between an academic course and a physical education course. The waiver may be requested just one time, either as a junior or a senior.**

CLASS REQUIREMENT: SHOES, SOCKS, SHORTS, AND APPROPRIATE SHIRT.

PERSONAL WELLNESS

GRADE LEVEL: 9-12
SEMESTER LONG COURSE

Physical Education promotes lifetime sport and recreational activities. Personal Wellness will include the following components: Aerobic activity, muscular strength, flexibility, team sports and individual sports. This course includes the study of physical development concepts and principles of sport and exercise as well as opportunities to develop or refine skills and attitudes that promote lifelong fitness. Students have the opportunity to develop an appropriate personal fitness program that enables them to achieve a desired level of fitness. Ongoing assessment includes both written and performance based skill evaluation.

LIFEGUARDING

PREREQUISITE: 15 YEARS OF AGE OR OLDER
GRADE LEVEL: 9- 12
SEMESTER LONG COURSE

This course is designed to certify students in lifeguarding, First Aid, and CPR. Students will be certified through the American Red Cross. Students will need to pay a fee of approximately $45.00 to take class. **THIS CLASS WILL FULFILL SWIM COURSE REQUIREMENT.**

SOCIAL SCIENCES/HISTORY

REQUIRED

AMERICAN HISTORY
GRADE LEVEL: 10
THIS IS A 2-TERM COURSE.

American History is a required course and must be passed in order to graduate from Williamsburg High School. American History is not just the memorization of facts and dates; it is much more personal and interesting! It is finding out about ourselves: who we are, where each one of us comes from and where we might be going. It is learning about conflicts among people and cultures, our ancestors and heritage, and how these have shaped our country and us. We study the actions and behaviors of people and how these have impacted our lives even today. We can learn from others mistakes and be inspired by their triumphs. The time period is from Civil War to present day.

GOVERNMENT
GRADE LEVEL: 11, 12

Government is a required course and must be passed in order to graduate from Williamsburg High School. This government class focuses on the origins, development, structure, and functions of the United States government. The class will help show how people work together to make our society function. We seek to give all students a working knowledge of unique aspects of government in all of its forms, with an emphasis placed on our national government. This course will cover the foundations of American government, the U.S. Constitution, branches of government, our rights and civic responsibility. Government will give the student a background on which he or she may exercise his or her role as an educated and informed citizen.

WORLD GEOGRAPHY
GRADE LEVEL: 9

World Geography is a required course and must be passed in order to graduate from Williamsburg High School. This course studies the relationship between the physical environment, humans and the culture that they create. This course will focus on the five themes of geography (location, place, region, movement, and human environment interaction) and examine their impact on the various parts of our world. The knowledge gained from this class will enable students to understand the nature of geography and to start to view the earth with a geographic perspective--in terms of people and places.

WORLD HISTORY
GRADE LEVEL: 11
THIS IS A 2-TERM COURSE.

World History is a required course and must be passed in order to graduate from Williamsburg High School. World History offers you a chance to understand the world in which you live as it relates to the actions and decisions of the past. Beginning with early civilizations in 8000 BCE, you will evaluate and critique the evidence of our history to understand 'why' we are where we are. Evidence is drawn from all regions of the world with a special focus on western civilizations as we navigate to the Middle Ages and beyond. You will have opportunities to explore topics of your interest, as well as contribute to the larger class discussions and activities. Emphasis is placed upon evaluating sources and evidence, creating products to demonstrate learning, and classroom dialogues.

ELECTIVES

AP AMERICAN HISTORY
GRADE LEVEL: 10-12
YEAR LONG COURSE

AP American History will satisfy the requirement for American History. Advanced Placement United States History is a challenging course that is meant to be the equivalent of a freshman college course (and has the possibility of earning students college credit, depending upon the college). It is a survey of American history from the first people to enter the Americas to the present time. Solid reading and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical and analytical thinking skills, essay writing, and interpretation of primary and secondary sources. This course is designed to prepare students for the AP exam in May, which consists of 80 multiple-choice questions, a DBQ response question, and two free response essays. Students will master a broad body of historical knowledge, demonstrate an understanding of historical chronology, and use historical data to support an argument or position, and interpret/apply data from original documents.

AP PSYCHOLOGY
GRADE LEVEL: 11-12
THIS IS A 2-TERM COURSE.

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

AP WORLD HISTORY
GRADE LEVEL: 11-12
YEARLONG COURSE

AP World History will satisfy the requirements for World History Study in AP World History involves examining a period of time to see how its history, literature, fine arts, practical arts, politics, and economics are interrelated. All these factors work to shape the culture of that time, which will be the primary point of emphasis. Students' eligible for and selecting this course will be expected to work independently much of the time. They will need to be avid readers, competent writers, enthusiastic debaters, reliable researchers, and self-motivated workers. This course is designed to prepare students for the AP exam in May, which consists of 80 multiple-choice questions, a DBQ response question, and two free response essays. Students will master a broad body of historical knowledge, demonstrate an understanding of historical chronology, and use historical data to support an argument or position, and interpret/apply data from original documents.

Special Education Classes

FOR HIGH SCHOOL CREDIT
The IEP teams will assess students requiring individualized classes in core subject areas. Classes will be modified to meet the unique needs of the student, based upon student Individualized Education Programs (IEPs).

REGULAR CLASS CREDIT
The student will be taught by the general education teacher in the general education classroom. The student's IEP may determine whether a Special Education teacher collaborates with the General Education teacher during that class period. All accommodations and modifications on a student's IEP will be strictly followed in all general education classes.

PRACTICAL CLASS CREDIT (LIFE SKILLS OR SOCIAL SKILLS)
Several classes are taught by special education staff in order to provide instruction in concepts that are not being taught in the regular class setting. Practical life skills and social skills classes give the opportunity to teach several students at one time who have common basic skills to learn.

WASA (WILLIAMSBURG ASSISTED SKILLS ACADEMY) CREDIT
Students may receive credit in WASA using a Pass/Fail option. Special education students will be required to take a WASA class that pertains to his/her goal areas. This will address the specially designed instructional needs of the student. The instruction will be based upon each student's Individualized Education Program (IEP).

SUPPORTIVE PROGRAMS/ASSISTANCE

LEADERSHIP DEVELOPMENT

GRADE LEVELS: 9-12
THIS IS A SEMESTER LONG COURSE

This is a leadership education course in which students will focus on developing their own leadership skills, acquiring 21st century skills and goal setting. Emphasis is placed on having a growth mindset to developing their own leadership skills and abilities. Through investigations, group work, guest speakers and problem solving activities, students will set goals for personal improvement in their leadership capacities. One final project includes students working together to positively impact WHS culture.

STUDY SKILLS

PREREQUISITE: BASED ON TEST DATA/NEED
GRADE LEVELS: 9-12
THIS IS A YEAR LONG COURSE

Study skills is a class designed to help students improve in various areas including: reading comprehension, study skills, and organizational issues. Students will learn various strategies to improve their learning both in and outside of school.

Students are placed in this class by looking at the following student data:

- I-Ready Reading Diagnostic Tests. Students below grade level on any part of the diagnostic will be considered for enrollment.
- Reading Comprehension scores on the Iowa Assessments. Students below the 45%-ile will be enrolled in the course.

SUCCESS

PREREQUISITE: BASED ON NEED
GRADE LEVELS: 9- 12
THIS IS A SEMESTER LONG COURSE

The Williamsburg Success Program serves students in grades 9-12. Its purpose is to provide special assistance to students who may for one or more reasons be "At-Risk" of not succeeding at school, not completing high school, or not becoming a productive citizen upon completion of school. The staff will formulate a personal education plan for the individual that includes communication with the student and his/her teachers and parents. Services offered by the Success Center include counseling, study skills, before/after school study sessions, organization, goal-setting and monitoring attendance, classroom behavior, academic progress and social interactions.

Kirkwood Career Edge Academies

Offered at Williamsburg High School
2017-2018

Advanced Manufacturing
Arts and Sciences Academy
Culinary Academy
Education Academy
Health Careers
Project Lead the Way
Software Specialist
Welding

Advanced Manufacturing

The Kirkwood Advanced Manufacturing Engineering Technology Academy provides students with a jump-start to earning an associates, bachelors and/or graduate degree. Examples of college majors include, but are not limited to: CAD/Mechanical Engineering Technology, CNC Machining Technology, Welding, Manufacturing Technology and Industrial Engineering.

Iowa Average Salaries in Advanced Manufacturing Careers
Machinist: $17.19/hour, $36,010
Welder: $16.22/hour, $34,360
CNC Machine Programmer: $21.98/hour, $45,030

COMPUTER INTEGRATED MANUFACTURING (CIM) PLTW
SEMESTER COURSE
GRADE LEVEL: 9-12
KCC CREDIT-3 CREDITS

Manufactured items are part of everyday life, yet most students have not been introduced to the high tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system. Teaches robotics and automated manufacturing concepts by creating three-dimensional designs with modeling software, then producing actual models of student designs. This course was developed by Project Lead the Way. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

LIGHT MACHINING FOR MAINTENANCE TRADES
GRADE LEVEL: 10-12
THIS IS A SEMESTER LONG COURSE
KCC CREDIT- 4 CREDITS

Covers machine/shop safety, machine theory, blueprint reading, tolerances, tooling selection, machine feed and speed, and proper usage of manual knee mills and manual lathes. Emphasizes print reading, mill and lathe usage, and machine maintenance, in a hands-on lab setting. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

AGRICULTURE SCIENCE ACADEMY

The Kirkwood Agriculture Science Academy provides students with a jump-start to earning an associates, bachelors and/or graduate degree.

Kirkwood agricultural classes prepare students for exciting diversity: from animal or crop production work on the family farm to wildlife management as a park ranger. Students explore options for careers in agriculture-related businesses, in fields such as floriculture, small animal services, or nursery garden center, feed, seed, and fertilizer/chemical businesses and equine management

This academy is at Iowa Valley High School. Transportation is provided by Williamsburg CSD.

PRECISION FARMING SYSTEMS
PREREQUISITE: INTRODUCTION TO AGRICULTURE
GRADE LEVEL: 9-12
KCC CREDIT-3 CREDITS

Provides a background in the tools of precision farming, GPS, GIS and VRT. Introductory use of each of these tools in a precision farming system and how they are applied on the farm are covered. Hands-on activities with local data will provide a practical experience in the use of these tools. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PRINCIPLES OF AGRONOMY
KCC CREDIT- 3 CREDITS
AT IOWA VALLEY HIGH SCHOOL

Presents instruction in a crop plant classification, use and identification. Also covers cropping systems, tillage methods, planting and harvesting methods and crop growth patterns. A balance of theoretical and practical crop science. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PRINCIPLES OF HORTICULTURE
KCC CREDIT- 3 CREDITS
AT IOWA VALLEY HIGH SCHOOL

Includes plant growth, botanical nomenclature, anatomy, propagation, plant nutrition and climate, and introduces career fields within the horticulture industry. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

SURVEY OF ANIMAL INDUSTRY
PSEO-KCC CREDIT- 3 CREDITS
AT IOWA VALLEY HIGH SCHOOL

Breeds, basic management and marketing of farm animals. Composition, evaluation and marketing of animal products. Includes live animal demonstrations with cattle for meat and milk, horses, poultry, sheep and swine. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

Arts And Science Academy

The Arts and Science Academy provides students with a jump-start to earning an associates, bachelors and/or graduate degree. Students must earn 18 credit hours to qualify for a medallion.

COMPOSITION I
PREREQUISITE: COMPASS: KCC Guidelines
GRADE LEVEL: 12
KCC CREDIT- 3 CREDITS

Composition I requires Compass Test Placement score of 70 or above or ACT score of 18 or above on the English Test. This course develops expository writing with emphasis on organizations, supporting details, style, vocabulary and library research skills. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

COMPOSITION II
PREREQUISITE: COMPOSITION I
GRADE LEVEL: 12
KCC CREDIT- 3 CREDITS

Composition II teaches precise and responsible use of research tools. This course requires critical analysis of reading materials, audience and self when communicating content material, and develops students' ability to use effective and ethical arguments.

ENVIRONMENTAL SCIENCE
PREREQUISITE: GENERAL BIOLOGY
GRADE LEVEL: 11-12

Environmental Science is an introductory-level college science course. In this class you will explore major environmental topics including: biotechnology, climate change, fossil fuel use, human population growth, land utilization, pollution, resource management, soil degradation, and toxicology. You will learn concepts from a variety of sciences, like biology, chemistry, geology, physics, and sociology. You will practice analyzing and synthesizing concepts, writing fact-based opinions, and applying your learning to real environmental issues. Many of these issues are of *immediate* and *local* concern (in Linn, Johnson, Benton, and adjacent counties). Our natural environment is made of many complex systems. To make informed choices, you will learn how the physical and biological aspects of our environment interact. Furthermore, you will see how science affects and is affected by our economy, society, and politics. Your understanding of the environment and successfully dealing with environmental problems will depend upon your involvement with the science. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

***9 OTHER ELECTIVES THROUGH KIRKWOOD THROUGH ARTS AND SCIENCES.**

Culinary Academy

The Culinary Academy provides students with a jump-start to earning an associates, bachelors and/or graduate degree. Examples of college majors include, but are not limited to: Bakery Certificate, Culinary Arts, Hotel Management and Restaurant Management.

Iowa Average Salaries in Culinary/Food Service Careers
Chefs/Catering: $36,350
Supervisor of Food Prep and Service Staff: $29,830
Food Service/Restaurant Managers: $45,430
Food Prep Workers: $20,120
Pastry Chef/Baker: $24,210

MENU PLANNING
GRADE LEVEL: 10-12
KCC CREDIT- 1 CREDIT

Studies the principles of menu marketing and management. Students write and analyze menus for various population groups, types of food service facilities and service styles, then design a menu cover. Upon successful completion of a national test, students are certified by the National Restaurant Association Educational Foundation. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

NUTRITION
GRADE LEVEL: 10-12
KCC CREDIT- 1 CREDIT

Reviews basic nutritional concepts in relation to current health concerns and the food service industry. Includes practice in recipe and menu modification to improve nutrition. Upon successful completion of a national test, students are certified by the National Restaurant Association Educational Foundation. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

SAFETY AND SANITATION (HCM 100)
PREREQUISITE: NONE
GRADE LEVEL: 10-12
KIRKWOOD CREDIT

This Kirkwood course is one of three courses in the Culinary Academy. Upon satisfactory completion of Nutrition, Menu Planning and Safety and Sanitation, the student may fulfill two course requirements to Kirkwood's Restaurant Management and Culinary Arts Programs. This class is considered the "gatekeeper" class to a career in hospitality, regardless of your plan of study. Basic principles of bacteriology, food borne illness, sanitation, workplace safety, personal hygiene, food security, health regulations and inspections are studied. Students must complete the National Restaurant Association Educational Foundation certification exam to pass this course. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

Education Academy

The Education Academy can lead students to college certificates, diplomas, associate, bachelors and graduate degrees. Examples of college majors include, but are not limited to: Early Childhood, Elementary Education and/or Secondary Education.

Iowa Average Salaries in Education Careers:
Teacher Assistant/Para-professional: $10-$12/hour or $23,220
Teacher: $44,040

EXPLORING TEACHING
GRADE LEVEL: 11-12
THIS IS A SEMESTER LONG COURSE
PSEO-KCC CREDIT- 3 CREDITS

Introduces the concerns and activities of beginning teachers. The focus is on developing generic teaching skills applicable from preschool through high school. Microteaching is used to simulate actual teaching situations. Case studies are used to discuss common teaching problems. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

COURSES AVAILABLE ONLINE ONLY:

INTRO TO PSYCHOLOGY
GRADE LEVEL: 11-12
THIS IS A SEMESTER LONG COURSE
COMPASS READING-82 OR ACT READING – 19
PSEO-KCC CREDIT- 3 CREDITS

Introduces the scientific study of mental processes and behavior with emphasis on the nervous system, learning and memory, cognition, sensation and perception, motivation and emotion, personality intelligence, stress, psychological disorders and therapy, and social influence. Stresses roles of both theory and empirical evidence in describing, explain and predicting behavior. Encourages critical thinking about research methods and ethics. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

DEVELOPMENTAL PSYCHOLGOY
GRADE LEVEL: 11-12
KCC CREDIT- 3 CREDITS

Introduces physical, cognitive and psychosocial development from a lifespan perspective covering conception until death. Provides and introduction to major theories and classic and contemporary research, and examines normative development as impacted by genes, maturation, experience, cohort, gender, race, social class and culture. Discusses topics including developmental research methods; genetics; prenatal development; infancy; childhood/adolescence; early middle and late adulthood/ and death and bereavement.

Health Careers Academy

The Health Careers Academy can lead students to college certificates, diplomas, associate, bachelors and graduate degrees. Examples of college majors include, but are not limited to: Nursing, Athletic Training, Pre-Med, Exercise Science, Physical Therapy, Occupational Therapy, Radiology and Respiratory Therapy.

Perform basic nursing skills through hands-on, direct patient care. Examples include: assessment of vital signs, such as taking blood pressure, temperature and respiration; performing basic hygiene and transfer skills (bathing, dressing and feeding) and learning to communicate with residents and the health care team.

EXPLORATION OF HEALTHCARE CAREERS

GRADE LEVEL: 11-12
PSEO-KCC CREDIT- 3 CREDITS

Explores all aspects of health care and careers in the filed. Includes field trips to the Kirkwood Simulation Center. Covers the past, present and future of health care. Induces key career cluster terms and career options within each career cluster. Provides career information, including education required for each area, educational costs to attain a degree versus potential career earnings, job descriptions, cases studies and skills needed for specific career areas. Results in CPR for the Healthcare Provider certification upon successful completion. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

MEDICAL TERMINOLOGY

GRADE LEVEL: 11-12
PSEO-KCC CREDIT- 3 CREDITS

A comprehensive study of medical terminology as the language of medicine. Analyzes words by dividing them into component parts. Relates the medical terms to the structure and functional pathology for diseases and current medical procedures. Emphasizes word usage, abbreviations, pronunciation and spelling. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

NURSE AIDE

GRADE LEVEL: 11-12
PSEO-KCC CREDIT- 3 CREDITS

Provide safe, effective resident care by mastering basic care giving skills and concepts. This class includes 30 hours lecture, 15 hours lab and 30 hours of clinical per state guidelines. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PROFESSIONALS IN HEALTH

GRADE LEVEL: 11-12
PSEO-KCC CREDIT- 3 CREDITS

Learn the skills and characteristics expected for professional preparation and employability. Explore the health industry, see current trends and issues, and study the work environment as it relates to health and safety regulations. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

PROJECT LEAD THE WAY

The PLTW Engineering Academy provides students with a jump-start to earning an associates, bachelors and/or graduate degrees. Examples of college majors include, but are not limited to: Electronics Engineering Technology and Engineering in a wide variety of disciplines.

Students learn through a project based curriculum to problem solve real-world engineering challenges.

ENVIRONMENTAL SUSTAINABILITY- (ES)
2 TERM-SEMESTER COURSE
PREREQUISITE: GENERAL BIOLOGY
GRADE LEVEL: 11-12
PSEO-KCC CREDIT-3 CREDITS

An interdisciplinary specialty engineering course; students investigate and design solution in response to real-world challenges related to clean and abundant drinking water, food supply issues, and renewable energy applying their knowledge through hands-on activities and simulations, students research and design potential solution to these true-to-life challenges. Es brings together engineering, biology and ecology. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

INTRODUCTION TO ENGINEERING DESIGN (IED)-PLTW
GRADE LEVEL: 9-12
PSEO-KCC CREDIT-3 CREDITS

This PLTW course challenges students to use a problem-solving model to improve existing products and invent new ones. Students learn how to apply this model to solve problems in and out of the classroom. Using sophisticated three-dimensional modeling software, students communicate the details of the products. Emphasis is placed on analyzing potential solutions and communicating ideas to others.

PRINCIPLES OF ENGINEERING (POE)-PLTW
GRADE LEVEL: 9-12
PSEO-KCC CREDIT-3 CREDITS

This PLTW course is designed for students to explore a wide variety of careers in engineering and technology. Using activities, projects, and problems, students learn first hand how engineers and technicians use math, science, and technology in an engineering problem-solving process to benefit people.

COMPUTER INTEGRATED MANUFACTURING (CIM)
GRADE LEVEL: 9-12
KCC CREDIT-3 CREDITS

Manufactured items are part of everyday life, yet most students have not been introduced to the high tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system. Teaches robotics and automated manufacturing concepts by creating three-dimensional designs with modeling software, then producing actual models of student designs. This course was developed by Project Lead the Way.

SOFTWARE SPECIALIST

Software is a part of not only business and industry but a part of our daily lives as well. Completing this academy gives students a strong understanding in the application area and skills that are transferrable and useful to countless career opportunities.

DESKTOP PUBLISHING

GRADE LEVEL: 9-12
PSEO-KCC CREDIT-3 CREDITS

The programs explored in this class are InDesign, Photoshop and Publisher. If you enjoy getting creative with print and photo or if you enjoy exposure to new programs, this course is a good fit for you. This is an introductory course to expose students to software that is used to create items such as menus, magazine spreads, and magazine covers, and other commonly used printed materials. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

INTRO TO COMPUTERS

GRADE LEVEL: 9-12

This course covers a wide range of topics when it comes to working with computer related concepts. In this course the student will be defining terminology related to topics of information systems, hardware, network, and information technology. Software specific applications include demonstrating competency in various spreadsheet applications, presentation applications, database applications, document editing and formatting applications.

Familiarizes the student with business, personal and industrial uses of microcomputers. Broad-based overview of microcomputer topics is presented; concepts of storage media, file organization and data representation are also presented. The fundamentals of computer problem solving and programming are discussed. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

POWERPOINT MULTIMEDIA

GRADE LEVEL: 9-12
PSEO-KCC CREDIT-3 CREDITS

Develop knowledge of multimedia concepts by studying multimedia software and the hardware components needed to develop and view multimedia productions. Use assessment projects to demonstrate and learn multimedia elements (copyright, video, graphics, sound and animation), tools (digital camera, video camera, scanner, cams) and editing software (sound, video and graphics editing). The primary focus of the class is the multimedia. Students will learn to use sound, video, with the PowerPoint. **STUDENTS WILL NEED TO APPLY TO KCC AND HAVE PLACEMENT SCORES ON FILE.**

WELDING

Kirkwood welding courses prepare you for exciting diversity in skilled careers; from self-employment in repair and maintenance trades to commercial and industrial structural and manufacturing employment

Iowa Average Salaries in Welding Careers
Machinery Manufacturing: $17.58/hour
Architectural & Structural Manufacturing: $16.81/hour
Repair & Maintenance: $18.08/hour
Product & Parts Manufacturing: $20.66/hour
Motor Vehicle Part Manufacturing: $16.38/hour

INTRO TO WELDING SAFETY
GRADE LEVEL: 11-12
PSEO-KCC CREDIT-1 CREDIT

This course will cover the basics of safety and health within the welding profession and orientation to the occupation. This course aligns to sense level I, module I, occupational orientation and module 2, safety and health of workers.

GAS METAL ARC WELDING SHORT CIRCUIT TRANSFER
GRADE LEVEL: 11-12
PSEO-KCC CREDIT-2 CREDITS

Focuses on proper weld safety, machine setup and welding techniques of gas metal arc welding short-circuiting transfer. Students perform American welding society compliant welds on carbon steel, in flat, horizontal, vertical and overheard positions, this course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. This course aligns with sense level I module 5, gas metal arc welding key indicators 1-7. Also aligns to sense level 3§, drawing and welding symbol interpretation key indicator 3.

GAS METAL ARC WELDING SPRAY TRANSFER
GRADE LEVEL: 11-12
PSEO-KCC CREDIT-2 CREDITS

Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Spray Transfer. Students perform American Welding Society compliant welds on carbon steel in flat and horizontal positions. This course will prepare student to take an AWS welding certification test, which is recommended for its successful completion. It aligns with SENSE Level I, Module 5-Key Indicators 1, 2, and 8-12. Also aligns to SENSE Level 3, Drawing and Welding Symbol Interpretation, Key Indicator 3.

GAS TUNGSTEN ARC WELDING (GTAW) FOR CARBON STEEL
GRADE LEVEL: 11-12
PSEO-KCC CREDIT-2 CREDITS

Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Spray Transfer. Students perform American Welding Society compliant welds on carbon steel in flat and horizontal positions. This course will prepare student to take an AWS welding certification test, which is recommended for its successful completion. It aligns with SENSE Level I, Module 5-Key Indicators 1, 2, and 8-12. Also aligns to SENSE Level 3, Drawing and Welding Symbol Interpretation, Key Indicator 3.