

# *JEFFERSON COUNTY SCHOOLS*

## PROGRAMS OF STUDY 2017 - 2018



GRADUATION REQUIREMENTS  
FOR STUDENTS THAT WILL GRADUATE IN  
2018, 2019, 2020, OR 2021

## Notes

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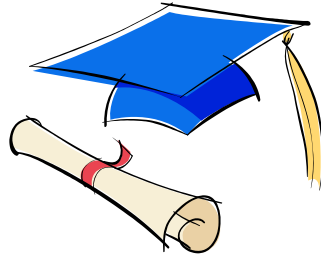
# **JEFFERSON COUNTY SCHOOLS**

## **Vision Statement**

***“Excellence in Teaching and Learning”***

## **Mission Statement**

***Through excellence in teaching and learning, Jefferson County Schools will ensure that all students value themselves and others, contribute to their community, and succeed in a global society.***



## **Definitions**

***Career Clusters:*** A broad grouping of related careers as defined by the United States Department of Education. The sixteen Career Clusters are Agriculture, Food, & Natural Resources, Architecture & Construction, Arts, A/V Technology & Communications, Business Management & Administration, Education & Training, Finance, Government & Public Administration, Health Science, Hospitality & Tourism, Human Services, Information Technology, Law, Public Safety, Corrections & Security, Manufacturing, Marketing, Science, Technology, Engineering & Mathematics, and Transportation, Distribution & Logistics.

***Concentration:*** A coherent sequence of academic and technical courses that prepare students for graduation and college and career readiness, and are related to a student’s chosen Career Cluster and postsecondary goal. For more information about a specific concentration, please refer to [boe.jeff.k12.wv.us](http://boe.jeff.k12.wv.us) click on Programs of Study or speak to your counselor.

***Personalized Education Plan (PEP):*** A plan developed to guide students and their parent and/or guardian to thoughtfully explore individual interest and aptitude in relation to academic and career planning. Each student’s course selections are based on individual career aspirations and postsecondary plans.

## **CAREER EXPLORATION AND DECISION-MAKING JEFFERSON COUNTY SCHOOLS**

### **Grade 7 and 8 Career Exploration**

In grades 7 and 8 students will be exposed to a variety of skills and career opportunities through the two rotations of elective courses. Middle school students may also participate in the James Rumsey Career Exploration program.

In Grade 7, students will begin using the College Foundation of West Virginia (CFWV) platform as well as other tools and activities to learn about career and post secondary education opportunities.

In Grade 8, components of the Introduction to Career Clusters curriculum are used to provide exposure and information regarding a wide variety of career and educational opportunities. This curriculum is designed to assist students in selection of a Career Cluster as part of their Personalized Education Plan and in planning a high school course of study.

Phase I of the Personalized Educational Plan (PEP) is implemented in Grade 8. Students will select a Career Cluster\* and begin planning appropriate classes for grades 9-12.

#### ***CAREER CLUSTERS\****

Agriculture, Food & Natural Resources	Arts, A/V Tech., & Communications	Architecture & Construction
Business Management & Administration	Education & Training	Finance
Government & Public Administration,	Health Science	Hospitality & Tourism
Human Services	Information Technology	Law, Public Safety, Corrections & Security
Manufacturing	Marketing	Science, Tech., Engineering & Math
Transportation, Distribution & Logistics.		

### **Grade 9 - 12 Personalized Education Plan and Experiential Learning:**

The Personalized Educational Plan (PEP) is reviewed and updated annually, in collaboration with the school counselor, teachers, advisor and parents/guardians. Update and revision of the PEP will be informed by factors such as academic offerings, career plans, review of student interest, learning styles and career & academic assessments.

At Grade 10, Phase 2 of the PEP is formalized as students identify course selection for Grades 11 & 12 and post secondary plans for the first year after high school. Students are also required to complete 4 hours of experiential learning. For more information, see the Experiential Learning Handbook, which can be found in the Counseling Center at each high school.



STUDENTS MAY AMEND THE PEP AT THE END OF ANY SEMESTER, PROVIDED AVAILABILITY OF COURSES AND ABILITY TO COMPLETE GRADUATION REQUIREMENTS ON SCHEDULE

**Graduation Requirements: 24 credit required: 18 prescribed and 6 personalized**

Graduation requirements for the class of 2018 and beyond

**Graduation Requirements (18 prescribed)**

<b>English Language Arts</b>	<b>4 credits</b> English 9 English 10 English 11 English 12 or English 12 CR or Transition English Language Arts for Seniors An AP® English course may be substituted for any of the above courses.
<b>Mathematics</b>	<b>4 credits</b> Math I or Math I Lab Math II Math III STEM, or Math III LA or Math III TR Math IV or Math IV TR or Transition Mathematics for Seniors or any other fourth course option (see chart on page 35). An AP® Mathematics course may be substituted for an equivalent course or any fourth course option.
<b>Science</b>	<b>3 credits</b> Earth & Space Science (For students in Grade 9 that will graduate in 2020) Physical Science (for students in grades 10-12 that will graduate in 2017, 2018, or 2019) Biology (Grade 10) One additional lab science course or AP® science course
<b>Social Studies</b>	<b>4 credits</b> World Studies (Grade 9) or an AP® Social Studies course United States Studies (Grade 10) or an AP® Social Studies course One additional Social Studies course or an AP® Social Studies course Civics for the Next Generation or AP® Government and Politics.
<b>Physical Education</b>	<b>1 credit</b>
<b>Health</b>	<b>1 credit</b>
<b>The Arts*</b>	<b>1 credit</b>

\* Students who choose to substitute one of the listed CTE courses for the required art credit must enroll in an additional CTE course applicable to their selected CTE concentration.

The following courses are approved for substitution:

- 1851 - Fundamentals of Illustration (taught at James Rumsey Technical Institute)
- 1857 - Fundamentals of Graphic Design (taught at James Rumsey Technical Institute)
- 1861 - Advanced Illustration (taught at James Rumsey Technical Institute)
- 1859 - Advanced Graphic Design (taught at James Rumsey Technical Institute)
- 1431 - Digital Imaging (taught at JHS and WHS)

Chart continued from previous page

<b>Graduation Requirements (6 personalized)</b>	
<b>Personalized Education Plan (PEP)</b>	<p><b>4 credits</b></p> <p>Each student’s Personalized Education Plan (PEP) will identify course work for the four (4) credits that will lead directly to placement in entry-level, credit-bearing academic college courses, an industry-recognized certificate or license, or workforce training programs. Best practices encourage students to take at least 1 AP® and/or AC course with corresponding examination, a fourth Science credit, and 2 credits in one World Language, and/or four credits cumulating in acquisition of industry recognized Career and Technical Education credential focused on career aspirations.</p>
<b>Electives</b>	<p><b>2 Credits</b></p> <p>The remaining graduation requirements are to be electives. When choosing electives, students should consult with their chosen postsecondary educational program to make sure the electives are acceptable.</p>

<b>Career Development</b>	All students in grades 9-12 shall be provided structured, on-going experiences for career exploration, decision making and career preparation.
<b>Experiential Learning</b>	All students must participate in an experiential learning experience at some time in grades 9-12 earning a minimum of 4 hours to meet graduation requirements.
<b>Technology</b>	Students in grades 9-12 shall be provided integrated opportunities within the core requirements to master the standards for Policy 2520.14. It is recommended that all students take at least one course in technology applications during grades 9-12. It is also recommended that all students complete an online learning experience during grade 9-12. Students must be provided opportunities for advanced technology applications.
<b>Student Advocate/Advisor/Mentor “LINKS”</b>	High schools will implement an advisory system that provides students with meaningful supportive relationships and maximizes each student’s personalized learning experience. An adult advocate, advisor, or mentor will take an interest in each student’s successful learning, goal setting, career planning and personal growth.

**TOTAL CREDITS NEEDED TO GRADUATE = 24 and 4 hours of experiential learning**

## ***Experiential Learning Policy***

### *Purpose and Definition*

In accordance with Policy 2510 all Jefferson County students in grades 9-12 must participate in an experiential learning activity before completion of the 12<sup>th</sup> grade. Experiential Learning is any structured quality work-based, service-based, community-based and/or research-based learning experiences. These are experiences that require students to integrate knowledge and skills from academics, career/technical education and/or the arts and demonstrate the personal qualities, skills, and understanding that students need to be leaders in the 21<sup>st</sup> century.

### *Requirements*

Beginning in grade 9, to be completed by the end of grade 12, each student will be required to complete a minimum of four hours of experiential learning as a graduation requirement. Experiential learning opportunities are activities related to a student's career choice that assist the student to gain an awareness of the workplace, develop an appreciation of the relevance of academic subject matter to workplace performance, and gain valuable work experience and skills while exploring career interests and abilities. It is not required that the experiential learning experience occurs during the regular school day or within the school calendar.

### *Awarding of Credit*

Awarding credit is optional. A student may gain credits by successful completion of established high school experiential learning programs.

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## ***Honors and Advanced Placement (AP) Programs***

Advanced Placement gives high school students the opportunity to receive college credit in the high school upon passing the AP exam. AP and Honors courses are available in many areas, consult the programs of study for listing. There is an application process for entrance into the honors program. Trigonometry, Math III Stem, and all honors and AP classes are weighted. All students in AP classes are strongly encouraged to take the AP exam. Some honors/AP courses may require summer assignments.

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## ***College Classes***

It is the intent of Jefferson County Schools to make available college courses for all students. Course offerings, times, locations, fees and admission requirements rest solely with and are at the discretion of the individual colleges and universities. Registration, transportation, and all fees are the responsibility of the students and their parents. Entry requirements and eligibility are determined by the college or university. Interested students must speak to their school counselors regarding enrollment procedures, costs, times, and locations, etc. Students must confer with counselors during scheduling about taking college courses for high school credit. These must be pre-arranged in order to count for high school credit.

College courses should not be confused with advanced placement courses which are offered during the regular school day at all Jefferson County High Schools.

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## ***College Credit***

With the approval of the school principal and meeting college requirements, students demonstrating outstanding achievement and ability may enroll at a community technical college, four year college or university, or at their high school. Some college credits earned may also fulfill required/elective credits to meet high school graduation requirements. The tuition/transportation is the responsibility of the student/parent.

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## ***High School Senior Honors College Program***

The High School Senior Honors Program is designed to allow seniors to attend classes at Shepherd University or Blue Ridge Community & Technical College for half of their senior year school day. Seniors will be required to be enrolled in a minimum of four (4) credited class periods at JHS or WHS. Seniors may be released for one (1) to three (3) periods to attend college classes. To participate in this program, seniors must obtain an application for the program from guidance and a recommendation from the principal. The criteria to be met for the principal's recommendation will be

- (1) ACT Score of 21 or SAT score of 1,000 or the equivalent PSAT score
- (2) Overall cumulative GPA of 3.0 for Grades 9-11
- (3) Excellent Attendance
- (4) Excellent Character/Discipline Record
- (5) The desire to succeed in college

Seniors will provide their own transportation to college. Also, seniors who enroll in college classes are reminded that these classes may not be dropped. The grade earned in a college class is part of the student's college record and will apply to future scholarships.



### ***West Virginia Promise Scholarship Program***

The goals of the PROMISE Scholarship program are threefold; to increase the rate of college attendance, to reward and encourage academic achievement, and to keep our best and brightest students here in West Virginia. PROMISE is designed to make college more accessible and affordable in West Virginia, thereby increasing the college-go rate of West Virginia students. The PROMISE Scholarship program will also provide an incentive to our high school graduates to pursue post-secondary opportunities here in our state. Eligible students will receive a scholarship towards tuition to a public college (including community and technical college) or university, or an equivalent dollar scholarship to a private college or university in West Virginia. Eligibility requirements and additional information available at the following website:

[www.cfww.com](http://www.cfww.com)

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### ***EDGE (Earn a Degree and Graduate Early)***

EDGE is a program that affords students the opportunity to take specific high school courses from which students can earn both high school and community college credit at no cost to the student or parent. The credits earned may be transferred to community and technical colleges in the state of West Virginia (each college may be different). For more information contact the community college of your choice or the guidance department. Information is also available at the following website:

[www.careertech.k12.wv.us/edge/](http://www.careertech.k12.wv.us/edge/)

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### ***Students Interested in Participating in Athletics at the College Level (NCAA)***

The NCAA determines a college student-athlete's eligibility. It is the student's and the parent's/guardian's responsibility to check with the National College Athletic Association (NCAA) and their post-secondary institution before completing or adjusting the student's schedule. The NCAA currently only accepts college preparatory classes and above from Jefferson County Public Schools. If a student-athlete wishes to participate in collegiate sports, the student and parent are advised to meet with the school counselor. Information regarding NCAA can be found at [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

## **Courses Accepted By NCAA as a Core Course as of 2016\***

### **English**

ENGLISH 9 COLLEGE PREPARATORY  
ENGLISH 9 HONORS  
ENGLISH 10 COLLEGE PREPARATORY  
ENGLISH 10 HONORS  
ENGLISH 11 COLLEGE PREPARATORY  
ENGLISH 11 HONORS  
AP ENGLISH LANGUAGE AND COMPOSITION 11  
ENGLISH 12 CR  
ENGLISH 12 COLLEGE PREPARATORY  
AP ENGLISH LITERATURE AND COMPOSITION 12  
SPEECH I  
CREATIVE WRITING

### **Mathematics**

MATH I, II, III, IV  
ALGEBRA I, II, III  
HONORS ALGEBRA  
GEOMETRY  
TRIGONOMETRY  
PRE- CALCULUS  
MATH II, HONORS  
MATH III, LA, STEM  
COLLEGE ALGEBRA\*\*  
COLLEGE TRIGONOMETRY\*\*  
AP CALCULUS AB  
AP STATISTICS

### **Social Science**

WORLD STUDIES TO 1900 COLLEGE PREP.  
WORLD STUDIES COLLEGE PREP  
WORLD STUDIES TO 1900-HONORS  
WORLD STUDIES HONORS)AP WORLD HISTORY  
U.S. HIST. TO 1900 COLLEGE PREP.  
US STUDIES COLLEGE PREP.  
U.S. HIST. TO 1900 HONORS  
US STUDIES HONORS  
20TH/21ST CENTURY STUDIES COLLEGE PREP.  
CONTEMPORY STUDIES COLLEGE PREP.  
20TH/21ST CENTURY STUDIES HONORS  
CONTEMPORY STUDIES HONORS  
AP U.S. HISTORY  
CIVICS FOR 21ST CENTURY COLLEGE PREP.  
CIVICS NEXT GENERATION COLLEGE PREP.  
AP U.S. GOVERNMENT AND POLITICS  
AP EUROPEAN HISTORY  
AP PSYCHOLOGY  
GEOGRAPHY  
INTRO TO LAW: PRACTICAL LAW  
INTRO TO PSYCHOLOGY  
ECONOMICS  
SOCIOLOGY

### **Natural/Physical Science**

9TH GR. PHYSICAL SCIENCE  
9TH GR. PHYSICAL SCIENCE - HONORS  
BIOLOGY  
AP BIOLOGY  
BIOLOGY/HONORS  
EARTH SCIENCE  
EARTH & SPACE SCIENCE \*\*  
EARTH & SPACE SCIENCE HONORS\*\*  
  
CHEMISTRY  
AP CHEMISTRY  
HUMAN ANATOMY & PHYSIOLOGY  
PHYSICS  
AP PHYSICS  
INTRODUCTION TO FORENSICS

### **Additional Core Courses**

FRENCH I- IV  
GERMAN I - III  
SPANISH I - IV  
SPANISH V/AP SPANISH

\*Check [www.eligibilitycenter.org](http://www.eligibilitycenter.org) for the most up to date information in addition to denied courses.

\*\* Pending approval by NCAA

**Agriculture, Food & Natural Resources Career Cluster**

<b>Pathways</b>	<b>Concentration</b> <i>4 required concentration courses</i>	<i>Washington and/or Jefferson High School</i>	<i>James Rumsey Technical Institute</i>
<b>Power, Structure, &amp; Technical Systems</b>	<b>Power, Structural &amp; Technical Systems (AG 0110)</b> <i>Course #1 - 0101 Introduction to Agriculture, Food, and Natural Resources</i> <i>Course #2 - 0112 Fundamentals of Ag. Mechanics</i> <i>Course #3 - 0134 Supervised Ag. Experience, 1/2 credit per year (SAE)</i> <b>and select one of the following for course #4:</b> <i>0113 Ag. Structures or</i> <i>0114 Ag. Equipment &amp; Repair</i>	X	
<b>Plant Systems</b>	<b>Plant Systems CASE* (AG 0215) JHS Only</b> <i>Course #1 -0161 Intro. to Ag., Food, and Natural Resources (CASE)</i> <i>Course #2 -0166 Plant Science (CASE)</i> <i>Course #3 -0165 Food Science &amp; Safety (CASE)</i> <i>Course #4 -0163 Agriculture Research &amp; Development (CASE)</i>	X	
	<b>Plant Systems (AG 0210) WHS Only</b> <i>Course #1 - 0101 Introduction to Agriculture, Food, and Natural Resources</i> <i>Course #2 - 0212 Horticulture</i> <i>Course #3 - 0134 Supervised Ag. Experience, 1/2 credit per year (SAE)</i> <i>Course #4 - 0214 Greenhouse Production &amp; Management</i>	X	
<b>Animal Systems</b>	<b>Animal Systems (AG 0220)</b> <i>Course #1 - 0101 Introduction to Agriculture, Food, and Natural Resources</i> <i>Course #2 - 0149 Companion Animal Care or</i> <i>2007 Equine Science or</i> <i>0141 Aqua culture</i> <i>Course #3 - 0134 Supervised Ag. Experience, 1/2 credit per year (SAE)</i> <i>Course #4 - 0140 Animal Production &amp; Management</i>	X	
<b>Natural Resources Systems</b>	<b>Natural Resource Management (AG 0170)</b> <i>Course #1 -0101 Introduction to Agriculture, Food, and Natural Resources</i> <i>Course #2 -0190 Fish &amp; Wildlife Management</i> <i>Course #3 -0134 Supervised Ag. Experience, 1/2 credit per year (SAE)</i> <i>Course #4 -0200 Natural Resource Conservation</i>	X	

**X—Concentration available at Washington and/or Jefferson High Schools\*\***

**JR—Concentration available at James Rumsey Technical Institute**

\*CASE (Curriculum for Agriculture Science Education) is a national curriculum designed to enhance rigor and relevance of agriculture, food, and natural resources subject matter. CASE provides purposeful enhancement of Science, Mathematics and English language understanding through inquiry based concepts.

\*\*See your counselor for more information

**Arts, A/V Technology, & Communications Career Cluster**

<b>Pathway</b>	<b>Concentration</b> <i>4 required/suggested concentration courses</i>	<i>Washington and/ or Jefferson High School</i>	<i>James Rumsey</i>
<b>Visual Arts</b>	<b>Graphic Communications (AV 1830)</b> <i>Fundamentals of Graphic Communication Electronic Imaging Image Assembly &amp; Platemaking Offset Press &amp; Bindery</i>		JR
	<b>Graphic Design (AV 1850)</b> <i>Fundamentals of Graphic Design Fundamentals of Illustration Illustration Graphic Design Application</i>		JR
<b>Performing Arts</b>	<b>Fine or Performing Arts</b> <i>Art History Appreciation Music History Choose 2 courses from Art, Band, Chorus, Dance, or Theater</i>	X	
	<b>Fine Arts/Humanities</b> <i>Performing Arts Electives Fine Arts Electives World Language(s) No more than two in the concentration. CTE/Academic/Social Studies Electives</i>	X	
	<b>Liberal Arts/Science</b> <i>Science Electives World Language(s) No more than two in the concentration. Social Studies Elective Art Electives CTE/Academic/PE Electives</i>	X	

**Architecture & Construction Career Cluster**

<b>Pathway</b>	<b>Concentration</b> <i>4 required concentration courses</i>		
<b>Construction</b>	<b>Electrical Technician (AR 1760)</b> <i>Electrical Trades I Electrical Trades II Electrical Trades III Electrical Trades IV</i>		JR
	<b>Carpentry (AR 1820)</b> <i>Carpentry I Carpentry II Carpentry III Carpentry IV</i>		JR
	<b>Masonry (AR 1910)</b> <i>Masonry I Masonry II Masonry III Masonry IV</i>		JR

**X—Concentration available at Washington and/or Jefferson High Schools\***

**JR—Concentration available at James Rumsey Technical Institute**

\*See your counselor for more information

**Business Management & Administration Career Cluster**

<b>Pathways</b>	<b>Concentration</b> <i>4 required/suggested concentration courses</i>	<i>Washington and/or Jefferson High School</i>	<i>James Rumsey</i>
<b>Administrative Support</b>	<b>Accounting (BM 1410)</b> <i>Course #1 -1411 Business Computer Applications I-Microsoft Imagine Academy Word &amp; Excel</i> <i>Course #2 -1413 Business Computer Applications II-Microsoft Imagine Academy PPT &amp; Access; or 0422 Marketing Principles; or 1439 Business and Marketing Essentials</i> <i>Course #3 -1401 Accounting Principles I</i> <i>Course #4 -1403 Accounting Principles II</i>	X	
	<b>Management and Administrative Support (BM 1465)</b> <i>Course #1 -1439 Business &amp; Marketing Essentials</i> <i>Course #2 -1411 Business Computer Applications I-Microsoft Imagine Academy Word &amp; Excel</i> <i>Course #3 -1401 Accounting Principles I</i> <i>Course #4 -1413 Business Computer Applications II-Microsoft Imagine Academy Power Point &amp; Access; or 1403 Accounting Principles II; or 0422 Marketing Principles</i>	X	

**Education & Training Career Cluster**

<b>Teaching/Training</b>	<b>Careers in Education (ED 1300)</b> <i>Course #1 -1301 Foundations in Education</i> <i>Course #2 -1302 Student Learning, Development, &amp; Diversity</i> <i>Course #3 -1304 Educational Psychology &amp; Learning</i> <i>Course #4 -1135 Teacher Preparation</i>	X	
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**Government & Public Administration Career Cluster**

<b>National Security</b>	<b>JROTC (GO 1070)</b> <i>Course #1 -1065 Citizenship, Character &amp; Traditions</i> <i>Course #2 -1080 Communication &amp; Awareness</i> <i>Course #3 -1081 Life Skills &amp; Career Investigation</i> <i>Course #4 -1066 Management &amp; Leadership Principles</i>	X	
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**Health Science Career Cluster**

<b>Therapeutic Services</b>	<b>Therapeutic Services (HE 0723)</b> <i>Foundations of Health Science</i> <i>Advanced Principles of Health Science</i> <i>Clinical Specialty I</i> <i>Clinical Specialty II</i>		JR
	<b>Fitness Ed./Sports Medicine/Sports Performance</b> <i>Foundations of Health Sciences</i> <i>Athletic Training*</i> <i>Weight Training*</i> <b>and select four of the following:</b> <i>Individual and Dual Sports I*</i> <i>Individual and Dual Sports II*</i> <i>Team Sports I*</i> <i>Team Sports II*</i> <i>Athletic Training Practicum*</i> <i>*Denotes semester course</i>	X	

**Hospitality & Tourism Career Cluster**

<b>Restaurants and Food/Beverage Services</b>	<b>Pro Start Restaurant Management (HO 1010)</b> <i>Course #1 -1013 Restaurant &amp; Culinary Foundations</i> <i>Course #2 -1014 Restaurant Management Essentials</i> <i>Course #3 -1019 Advanced Principles in Food Production</i> <i>Course #4 -1020 The Restaurant Professional</i>	X	JR
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**X—Concentration available at Washington and/or Jefferson High Schools\***

**JR—Concentration available at James Rumsey Technical Institute**

**Human Services Career Cluster**

<b>Early Childhood Development and Services</b>	<b>Child Development Specialist (HU 1000)</b> <i>Early Childhood Education I</i> <i>Early Childhood Education II</i> <i>Early Childhood Education III</i> <i>Early Childhood Education IV</i>		JR
	<b>Life Skills (IEP Required)</b> <i>Career Prep</i> <i>Career Exploration</i> <i>21st Century Learning</i> <i>Two CTE Electives</i>	X	

**Information Technology Career Cluster**

<b>Network Systems</b>	<b>Computer Systems Repair Tech. (IT 1680)</b> <i>Course #1 -1705 Fundamentals of Computer Systems (Comp TIA)</i> <i>Course #2 -1664 A+ Essentials</i> <i>Course #3 -1665 A+ Practical Applications</i> <i>Course #4 -1694 Networking Essentials</i>	X	JR
<b>Interactive Media</b>	<b>Certified Internet Webmaster –CIW (IT 1480)</b> <i>CIW Design Methodology and Technology Part 1</i> <i>CIW Design Methodology and Technology Part 2</i> <i>CIW Foundations I</i> <i>CIW Foundations II</i>		JR
<b>Information Support &amp; Services</b>	<b>CISCO Networking Academies (IT 1640)</b> <i>CCNET I</i> <i>CCNET II</i> <i>CCNET III</i> <i>CCNET IV</i>		JR
	<b>Informatics (IT 2201)</b> <i>1550 Connecting the Digital World</i> <i>1551 Designing the Digital World</i> <i>1552 Building the Digital World</i> <i>1553 Managing the Digital World</i>		JR
	<b>Information Management/Microsoft Computer Applications Specialist (IT 1450)</b> <i>Course #1 -1411 Business Computer Applications I- Microsoft Imagine Academy Word &amp; Excel</i> <i>Course #2 -1431 Digital Imaging/Multimedia</i> <i>Course #3 -1429 Desktop Publishing; or 1413 Business Computer Apps. II-Microsoft Imagine Academy PPT &amp; Access</i> <i>Course #4 –1455 Web Page Publishing</i>	X	

**Law, Public Safety, Corrections & Security Career Cluster**

<b>Emergency and Fire Management Services</b>	<b>Emergency &amp; Fire Management Services (HU 2200)</b> <i>Fire Safety Technology</i> <i>Fire Fighting I</i> <i>Fire Fighting II</i> <i>Emergency Med. Tech. Basic</i>		JR
<b>Law Enforcement Services</b>	<b>Law &amp; Public Safety (HU 1020)</b> <i>Foundations of Public Safety Leadership</i> <i>Ethical Practices of Public Safety</i> <i>Practical Applications of Public Safety Leadership</i> <i>Courts and Legal System</i>		JR

X—Concentration available at Washington and/or Jefferson High Schools\*

JR—Concentration available at James Rumsey Technical Institute

\*See your counselor for more information

### **Manufacturing Career Cluster**

<b>Pathways</b>	<b>Concentration</b> <i>4 required/suggested concentration courses</i>	<i>Washington and/ or Jefferson High School</i>	<i>James Rum- sey</i>
<b>Maintenance, Installation, &amp; Repair</b>	<b>Robotics (MA 1630)</b> <i>Robotics I Robotics II Robotics III Robotics IV</i>		JR
<b>Production</b>	<b>Welding Technology (MA 1980)</b> <i>Welding I Welding II Welding III Welding IV</i>		JR

### **Marketing Career Cluster**

<b>Marketing Management</b>	<b>Marketing Management (MK 0420)</b> <i>Course #1 -1439 Business and Marketing Essentials Course #2 -0434 Sports, Entertainment, &amp; Recreation Marketing; or 1403 Accounting Principles II; or 1431 Digital Imaging/ Multimedia Course #3 - 0422 Marketing Principles Course #4 -0425 Marketing Applications</i>	X	
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### **Science, Technology, Engineering, & Math Cluster**

<b>Science &amp; Mathematics</b>	<b>STEM</b> <i>Math Electives* Science Electives* CTE Electives Non-CTE Electives * Minimum one course must be a Math or Science elective</i>	X	
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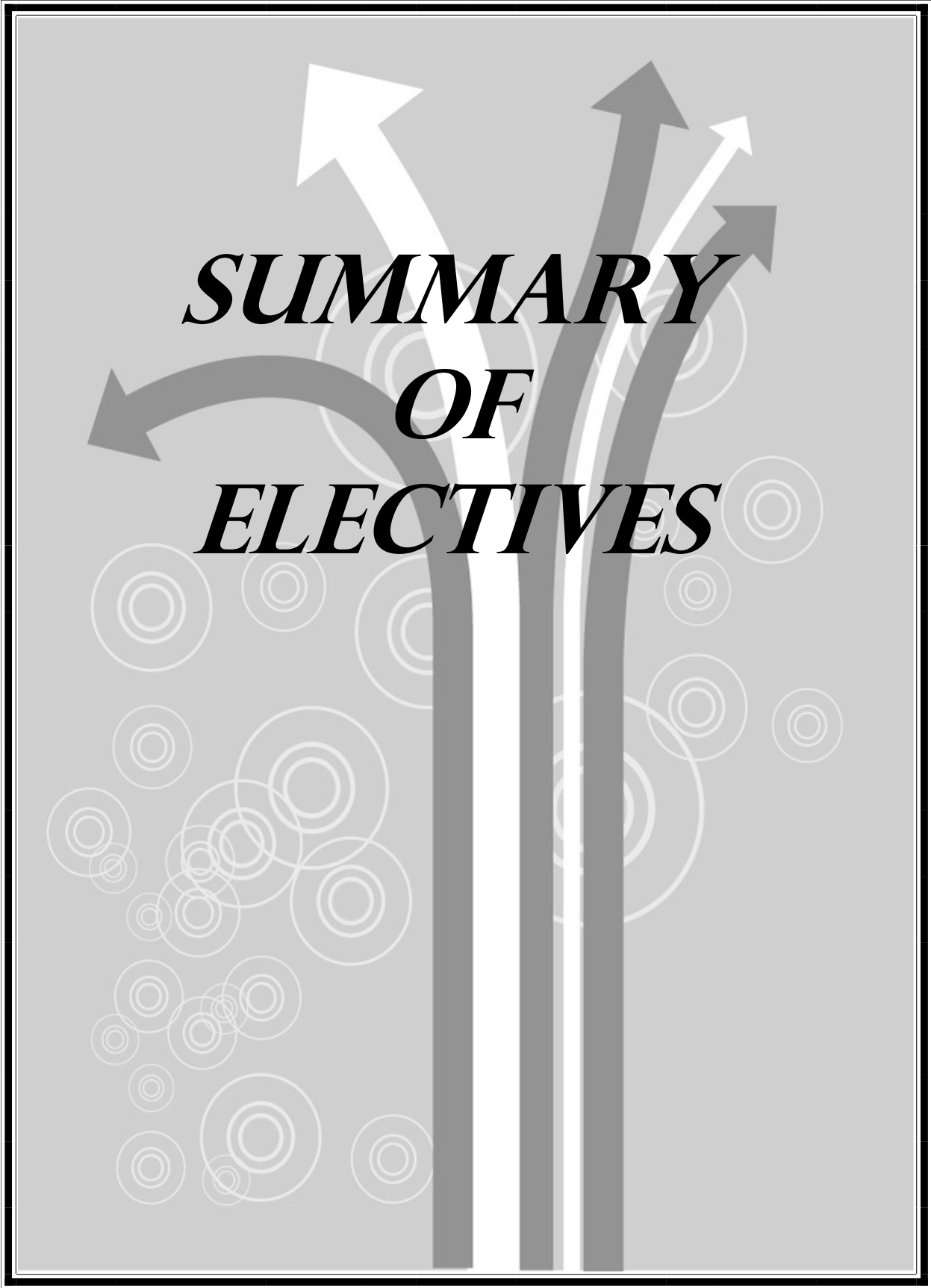
### **Transportation, Distribution, & Logistics Career Cluster**

<b>Facility &amp; Mobile Equipment Maintenance</b>	<b>Automotive Technology (TD 1620)</b> <i>Fundamentals of Automotive Technology Basic Engine Concepts Brakes Suspensions &amp; Steering Diagnosis</i>		JR
	<b>Diesel Technology (TD 1740)</b> <i>Fundamentals of Diesel Equipment Tech. Electronic Engine Controls Diesel Engine Components Diesel Support Systems</i>		JR

X—Concentration available at Washington and/or Jefferson High Schools\*

JR—Concentration available at James Rumsey Technical Institute

\*See your counselor for more information





## **ELECTIVES**

(\*Denotes semester course, Ec Denotes EDGE Credit)

*Not all courses listed will run. Courses must meet minimal enrollment numbers to run.*

### **AGRICULTURAL SCIENCE**

Agricultural Experience Program (SAE)	Fish & Wildlife Management Ec	Intro. to Ag. Food, & Natural Resources Ec
Ag. Equipment & Repair Ec	Food Science & Safety CASE Ec	Natural Resource Conservation Ec
Ag. Structures Ec	Fundamentals of Ag. Mechanics Ec	Companion Animal Care Ec
Animal Production & Management Ec	Greenhouse Production & Management Ec	Plant Science CASE Ec
Aquaculture Ec	Horticulture Ec	Ag. Research & Development CASE Ec
Equine Science Ec	Intro. to Ag. Food, & Nat. Resource CASE Ec	

### **AIR FORCE JUNIOR ROTC**

AFJROTC 100—Citizenship, Character, & Traditions Ec	AFJROTC Summer Leadership School Cadre Course*
AFJROTC 200—Communication, Awareness, & Leadership Ec	
AFJROTC 300—Life Skills & Career Opportunities Ec	
AFJROTC 400—Principles of Management Ec	
AFJROTC 410—Cadet Corps Management	
AFJROTC 500—Aviation Honors Ground School	
AFJROTC Summer Leadership School Basic Course*	
AFJROTC Summer Leadership School Advanced Course*	

### **THE ARTS**

Acting I, II, III, IV	Drawing*	AP Music Theory
AP Studio Art	Flags/Rifle Corps*	Painting*
Art History, Appreciation, & Aesthetics	General Art I—IV	Percussion Ensemble
Band I—IV	Guitar I	Piano I
Chamber Choir	Guitar II	Print Making*
Chorus I—IV	Graphic Design	Show Choir
Crafts Workshop*	Jazz Ensemble	Stagecraft
Dance I—IV	Jazz Improvisation	TV/Videotape
Dance Ensemble	Music History	Theatre I—IV

### **BUSINESS/MARKETING/INFORMATION TECHNOLOGY**

A+ Essentials Ec	Digital Imaging Ec
A+ Practical Applications Ec	Fundamentals of Computer Systems Ec
Accounting Principles I Ec	Marketing Principles Ec
Accounting Principles II Ec	Marketing Applications Ec
Business Computer Applications I Ec	Networking Essentials Ec
Business Computer Applications II Ec	Sports, Entertainment, Rec. Marketing
Business & Marketing Essentials Ec	Web Page Publishing Ec
Desktop Publishing Ec	

### **FAMILY & CONSUMER SCIENCES**

Applied Design-Fashion Merchandising*	Personal Resource Management*
Applied Design-Fashion Merchandise II *	ProStart I & II Ec
Applied Design-Housing/Interior Design	ProStart Cooperative Education
Careers in Education I, II, III, IV	
Food & Nutrition I *	
Food Preparation *	
Fundamentals of Human Services	
Parenting & Strong Families I	
Parenting & Strong Families II*	

## **ELECTIVES (Continued)**

(\*Denotes semester course, Ec Denotes EDGE Credit) *Not all courses listed will run. Courses must meet minimal enrollment numbers to run*

### **WORLD LANGUAGE**

French I  
French II  
French III  
French IV

Spanish I  
Spanish II  
Spanish III  
Spanish IV  
AP Spanish

### **MATHEMATICS**

Math I  
Math I Lab  
Math II  
Math III STEM  
Math III LA

Math III TR  
Math IV & Math IV Honors  
Math IV TR  
AP Calculus  
AP Statistics

Transitions Mathematics for Seniors  
College Algebra  
College Trigonometry

### **PHYSICAL EDUCATION**

Advanced Weight Training & Physical Fitness  
Athletic Training \*

Athletic Training Practicum \*  
Individual & Dual Sports I \*  
Individual & Dual Sports II \*

Team Sports I \*  
Team Sports II \*

### **READING AND ENGLISH LANGUAGE ARTS**

AP English Language & Composition  
AP English Literature & Composition  
Creative Writing \*

Newspaper  
Speech I \*  
Yearbook

### **SCIENCE**

AP Biology  
AP Chemistry  
AP Physics  
AP Environmental Science  
Biology  
Chemistry

Earth and Space Science  
Forensic Science  
Honors Biology  
Honors Earth and Space Science  
Human Anatomy & Physiology Ec  
Physical Science

Physics

### **SOCIAL STUDIES**

AP US History  
AP US Government—Politics  
Civics—Next Generation  
Civics—Next Generation College Prep  
US Studies  
US Civil War\*  
US Studies Honors  
US Studies College Prep

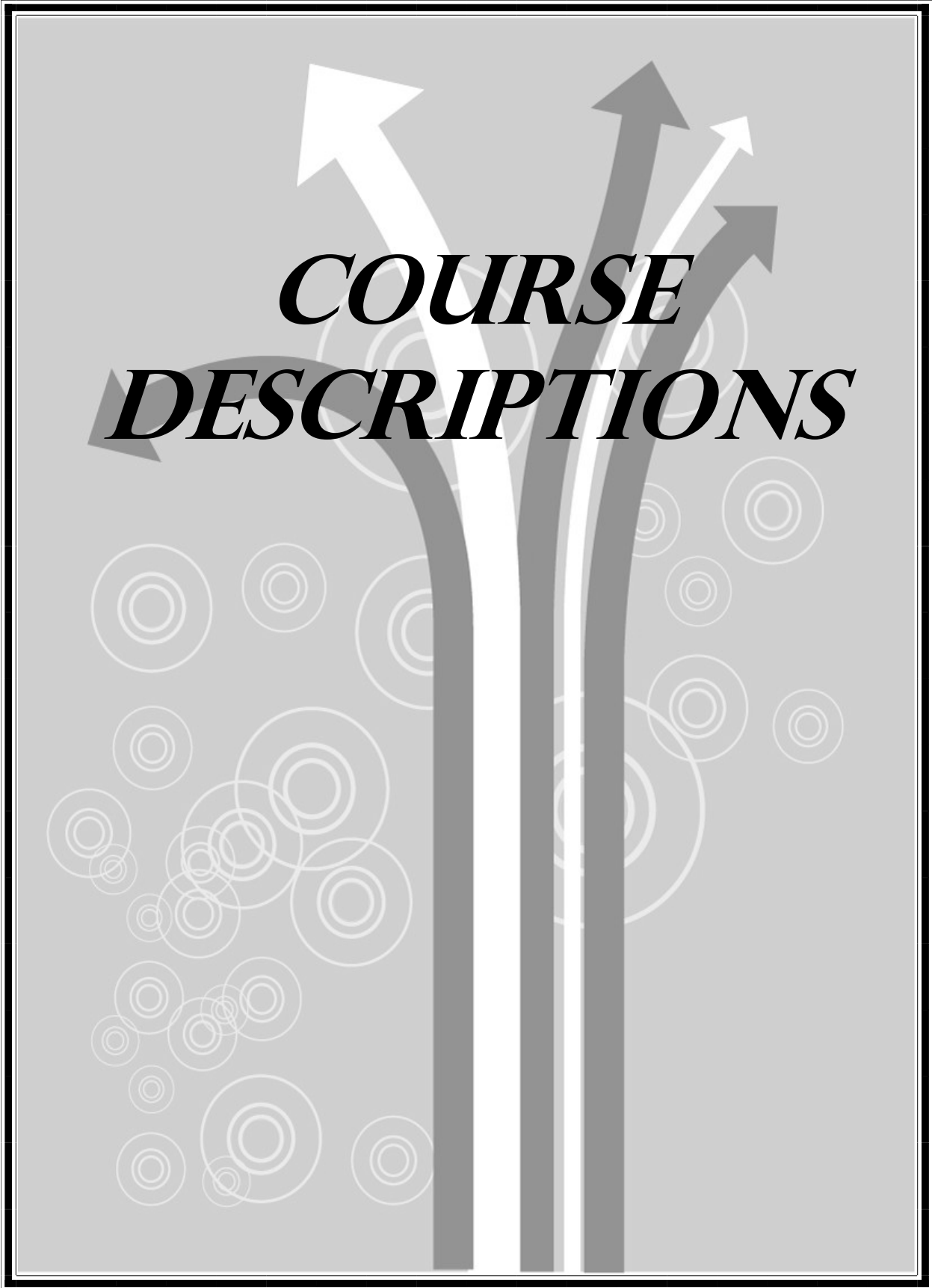
Contemporary Studies  
Contemporary Studies College Prep  
Contemporary Studies Honors  
World Studies  
AP World History  
World Studies Honors  
World Studies College Prep  
AP European History

AP Psychology  
Intro to Law  
Intro to Psychology Ec  
Sociology  
Economics Ec  
Geography

### **OTHER ELECTIVES**

Community Experiential Learning \*  
21st Century Advisor/Advisee\*  
Driver Education \*  
First Aid & Safety \*  
Energy & Power Foundations (Engineering I)

Energy Transmission & Distribution (Eng. II)  
Electron & Control Systems (Eng. III)  
Foundations of Health Sciences Ec  
Service Experiential / In School \*



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## **AGRICULTURAL SCIENCE AND NATURAL RESOURCES**

*Agriculture courses offer unique opportunities to explore a wealth of career fields. Student learning revolves around active engagement in the educational experience through laboratory and career exploration. Students are offered leadership, personal growth, and career success opportunities through the National FFA, a co-curricular organization of agriculture education.*

### **Introduction to Agriculture, Food, and Natural Resources *EDGE Credit* 0101**

This is a core course for the agriculture, food, and natural resources department that builds a knowledge base and technical skills in all aspects of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers. This course is offered at WHS only.

### **Introduction to Agriculture, Food, and Natural Resources (CASE) *EDGE Credit* 0161**

Student experiences will include the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. Students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. This course is offered at JHS only.

### **Fundamentals of Agriculture Mechanics *EDGE Credit* 0112**

This course introduces the knowledge and skills for applying the physical science principles and skills in operation and maintenance to mechanical equipment, welding and fabrication, structures, plumbing, electrical wiring, power utilization, and entrepreneurship as well as technical writing and interpretation. (Prerequisite – Intro to Ag.)

### **Agriculture Structures *EDGE Credit* 0113**

Students will use computer skills to develop simple sketches and plans, read and relate structural plans to specifications and building codes, estimate project costs, use construction/fabrication equipment and tools, and plan and design machinery, equipment, buildings and facilities. This course incorporates the Simulated Workplace model\*\*. (Prerequisite – Fund. of Ag. Mechanics)

### **Agriculture Equipment and Repair *EDGE Credit* 0114**

This course builds on the principles of other mechanics courses and provides more in-depth knowledge and skills as they relate to energy sources, lubricants, service and maintenance of machinery and equipment, and equipment operation. Students will apply principles of service and repair by troubleshooting problems and evaluating engine performance, follow guidelines to service and repair power transmission systems, hydraulic systems, and entrepreneurship. Tools used with these procedures will allow students to demonstrate proper skills and safety. This course incorporates the Simulated Workplace model\*\*. (Prerequisite – Ag. Structures)

### **Agricultural Experience Program 0134**

The Supervised Agricultural Experience program is a hands-on, student planned way to apply skills learned in the classroom to real world agricultural experiences. With help from their agricultural teachers, students develop an SAE project based on one or more SAE categories:

**Entrepreneurship** – Own and operate an agricultural business (e.g. a lawn care service, a pay-to-fish operation, holiday poinsettia production and sales.)

**Placement** – Gain employment or internship on a farm or ranch, at an agriculture-based business, or in a school or factory laboratory.)

**Research and Experimentation** – Plan and conduct a scientific experiment. (e.g. Determine whether the phases of the moon affect plant growth, or test and determine the efficacy of different welding methods.)

**Exploratory** – Explore careers in agriculture by attending an agriculture career fair, or creating a report or documentary on the work of a veterinarian.

(Prerequisite – Enrollment in an agriculture education course)

### **Companion Animal Care *EDGE credit* 0149**

This specialization course is designed for students interested in entering the companion animal industry as a pet groomer, animal care giver and/or companion animal entrepreneur. The course will cover topics on grooming, animal restraint, developing feed rations, business planning, developing marketing plans and animal facilities as they apply to various companion animals such as dogs, cats, rodents, birds, reptiles, amphibians and fish. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. (Prerequisite – Intro to Ag.)

\*\*Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see page 32 for more information:

**Animal Production and Management** *EDGE Credit* **0140**

This course is designed to be a core course in the Animal Systems concentration. The course will cover topics on animal restraint, animal management techniques, animal health and welfare, balancing rations, pedigree analysis, and entrepreneurship. This course incorporates the Simulated Workplace model\*\*. (Prerequisite – Intro. to Ag, Food, and Nat. Resources)

**Food Science & Safety (CASE)** *EDGE Credit* **0165**

This course is for students who seek a deeper knowledge in the area of food science technology. Topics covered include food safety, business and economics, packaging and marketing, value-added processing, quality assurance, food processing, food preparation and presentation and careers in the food science industry. This course is only offered at Jefferson High School. This course will meet the requirements for an elective science credit necessary for graduation. (Prerequisite – Intro. to Ag, Food, and Nat. Resources)

**Natural Resources Conservation** *EDGE Credit* **0200**

This specialization course covers topics on soil and water conservation, basic wildlife management, environmental law and regulations, basic forestry, basic farm physics and engineering, oil and gas production, renewable energy, environmental systems, nutrient management planning and government agencies. This course incorporates the Simulated Workplace model.\*\* (Prerequisite – Intro. to Ag, Food, and Nat. Resources)

**Fish and Wildlife Management** *EDGE Credit* **0190**

This specialization course covers topics on advanced wildlife management principles, water quality, and stream ecology and fish biology, history of fish and wildlife, habitat management, life history and wildlife values as natural resources. (Prerequisite-Intro to Ag.)

**Greenhouse Production and Management** *EDGE Credit* **0214**

This specialization course covers the scientific knowledge and skills to include more advanced scientific computations and communication skills needed in the horticulture industry. Topics include greenhouse plant production and management, bedding plant production, watering systems, light effects, career planning, leadership development and entrepreneurial skills. This course incorporates the Simulated Workplace model\*\*. Offered at WHS only.

**Horticulture** *EDGE Credit* **0212**

This course provides instruction in the broad field of horticulture with an emphasis on the scientific and technical knowledge for a career in horticulture. Topics in this course include plant growth and development, plant nutrition media selection, basic plant ID, pest management, chemical management, customer relations, career opportunities, leadership development and entrepreneurial skills. This course is only offered at Washington High School.

**Aquaculture** *EDGE Credit* **0141**

This specialization course focuses on the basic scientific principles and processes related to the aquaculture industry. Topics covered will be developing feed rations, business planning, developing marketing plans aquaculture facilities, water quality, breeding and management, processing, and aquatic biology and ecology. This course is only offered at Jefferson High School. (Prerequisite-Intro to Ag.)

**Equine Science** *EDGE Credit* **2007**

This specialization course focuses on the basic scientific principles and processes related equine anatomy and physiology, breeding, nutrition, and management practices in the equine industry. (Prerequisite-Intro to Ag.)

**Plant Science (CASE)** *EDGE Credit* **0166**

This is a foundation-level course that will teach students about the form and function of plant systems. Students are immersed in inquiry-based exercises filled with activities, projects, and problems to teach them plant concepts through laboratory and practical experiences. Student experiences will include the study of plant anatomy and physiology, classification, and the fundamentals of production and harvesting. This course is offered at JHS only and meets the requirement for an elective science credit.(Prerequisite – Intro. to Ag, Food, and Nat. Resources)

**Agriculture Research and Development (CASE)** *EDGE Credit* **0163**

This is a capstone course designed to culminate students' experiences in agriculture. Woven throughout the course are projects and problems based in practical applications and designed to develop and improve the employability skills of students. In this course, students will learn to solve complex real -world problems, conduct research, analyze data, work in teams & develop new products. This course incorporates the Simulated Workplace model\*\*. (Prerequisite – Food Science & Safety). Offered at JHS only.

\*\*Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see page 32 for more information:

## **AIR FORCE JUNIOR ROTC**

*(Students can earn college credit through the University of Colorado at Colorado Springs)*

*Students living in both the Washington High School and Jefferson High Schools districts may take AFJROTC and will attend Jefferson High School all day. Parking or bus transportation is provided if needed. Due to federal regulations AFJROTC is only offered at Jefferson High School. AFJROTC requires some after school and weekend events. There is an activity fee. For more information about mandatory events and fees please refer to <http://boe.jeff.k12.wv.us/afjrotc> or contact an instructor.*

***Students take AFJROTC courses in the sequential order presented here.***

### **AFJROTC-100: CITIZENSHIP, CHARACTER, & TRADITIONS: A JOURNEY INTO AVIATION** *EDGE Credit*

Leadership education introduces students to the AFJROTC program, instilling elements of good citizenship while providing a solid foundation for progressing through the next three years. Aerospace science focuses on the development and history of flight, with overviews of the principles of basic aeronautics, aircraft motion and control, flight power, rockets, as well as astronomical and space exploration. Wellness and drill and ceremonies are included. This course incorporates the Simulated Workplace model\*\*. Successful completion of two AFJROTC courses will fulfill the 1 credit PE requirement, which is a requirement to graduate.

### **AFJROTC-200: COMMUNICATION, AWARENESS, & LEADERSHIP: GLOBAL & CULTURAL STUDIES** *EDGE Credit*

At this level, leadership education stresses communications skills, understanding individuals, groups, and teams in preparation for assuming leadership positions. Aerospace science examines geopolitical issues such as terrorism, economics, politics, military issues, religion, environmental concerns, human rights, disease, overpopulation, literacy, and the migration of peoples, allowing for a better understanding of America's interests and role in the world. Wellness and drill builds on what was learned in AFJROTC 100. This course incorporates the Simulated Workplace model\*\*. Successful completion of two AFJROTC courses will count as one physical education credit, which is a requirement to graduate.

### **AFJROTC-300: LIFE SKILLS & CAREER OPPORTUNITIES: SCIENCE OF FLIGHT** *EDGE Credit*

*This course is a prerequisite for Air Force Junior ROTC-500 Aviation Honors Ground School.*

Leadership education prepares students for life after high school. Students receive complete information and guidance on college planning, selection and application processes, as well as a wealth of detail on college scholarships and other financial aid. Students mentor underclass students as leaders preparing future leaders. Aerospace science centers on the aerospace environment, human requirements of flight and physiology, principles of aircraft flight, and principles of navigation. Wellness and drill builds on what was learned in AFJROTC 200. This course incorporates the Simulated Workplace model\*\*. Successful completion of two AFJROTC courses will count as one physical education credit.

### **AFJROTC-400: PRINCIPLES OF MANAGEMENT: EXPLORATION OF SPACE** *EDGE Credit*

Leadership education focuses on the fundamentals of management, with students encouraged to see themselves as managers. At this level, they have even greater responsibility for planning, organizing, coordinating, directing, and controlling AFJROTC projects and activities. Students mentor junior leaders to take their places upon graduation. Aerospace science centers on exploring space, examining earth, the moon and the planets. Students examine the latest advances in space technology and the continuing challenges of the use of space and manned spaceflight, including space law. Wellness and drill builds on what was learned in AFJROTC 300. Students perform all drill and ceremonies of earlier courses while also managing and evaluating the drill and ceremonies of underclassmen. This course incorporates the Simulated Workplace model\*\*. Successful completion of two AFJROTC courses will count as one physical education credit.

\*\*Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see page 32 for more information:

### **AFJROTC-410: CADET CORPS MANAGEMENT**

*Prerequisites: A student must have the written approval of the AFJROTC Instructors on their schedule request.*

This course is for students who are responsible for managing the AFJROTC Cadet Corps. It covers the same material as the other courses on a yearly rotating basis. Students apply what they have learned to lead and manage the AFJROTC program. Students also meet the requirements of AFJROTC 400 for wellness and drill. This course incorporates the Simulated Workplace model\*\*. Successful completion of two AFJROTC courses will count as one physical education credit.

### **AFJROTC-500: AVIATION HONORS GROUND SCHOOL: PRINCIPLES OF MANAGEMENT**

*Prerequisites: A student must have completed two years in AFJROTC, AFJROTC 300, and have the written approval of the AFJROTC Instructors on their schedule request.*

This course is the classroom portion of pilot training. Upon completion of this course students should have the knowledge and skills to successfully complete the Federal Aviation Administration (FAA) written ground school examination. Additionally, students receive the principles of management leadership education course and participate in wellness and drill for their year group. This course incorporates the Simulated Workplace model\*\*. Successful completion of two AFJROTC courses will count as one physical education credit.

### **SUMMER LEADERSHIP SCHOOL BASIC COURSE**

*Prerequisites: A student must have completed at least one year of AFJROTC and received an invitation from the AFJROTC Instructors.*

Held in-residence on a university campus during the summer, the course is for students who have demonstrated leadership ability and desire to become future leaders within AFJROTC. Tuition is approximately \$125.

### **SUMMER LEADERSHIP SCHOOL ADVANCED COURSE**

*Prerequisites: A student must have completed at least two years of AFJROTC, the Summer Leadership School Basic Course and received an invitation from the AFJROTC Instructors.*

This course is for students who are preparing to lead the AFJROTC program. The focus of this course is preparing students to plan, implement, and manage AFJROTC programs at their schools. Tuition is about \$125.

### **SUMMER LEADERSHIP SCHOOL CADRE COURSE**

*Prerequisites: A student must have completed at least two years of AFJROTC, the Summer Leadership School Basic Course and received an invitation from the AFJROTC Instructors.*

This course is for student leaders who lead the AFJROTC program. Students attend more in-depth classes and assist instructors with operating the school as part of their leadership development. Tuition is about \$125.



## **THE ARTS**

(\*Denotes semester course)

One credit of Fine Arts is required for graduation. Dance, Art, Drama, Music-Instrumental and Vocal qualify for the arts credit. The following CTE courses are approved for the required art credit substitution:

1851 - Fundamentals of Illustration (taught at James Rumsey Technical Institute)

1857 - Fundamentals of Graphic Design (taught at James Rumsey Technical Institute)

1861 - Advanced Illustration (taught at James Rumsey Technical Institute)

1859 - Advanced Graphic Design (taught at James Rumsey Technical Institute)

1431 - Digital Imaging (taught at JHS and WHS) Students who choose to substitute one of the listed CTE courses for the required art credit **must** enroll in an additional CTE course applicable to their selected CTE concentration.

### **DANCE**

#### **DANCE I (9-12)**

Dance I focuses on the technical skills, principles of choreography and higher level thinking skills necessary to employ dance skills as a means of communication. Students will also make connections between dance and healthful living, identify and demonstrate movement elements in performing dance, and understand dance of various cultures.

#### **DANCE II (Grades 10-12)**

This class is a continuation of the fundamentals of Dance I. Students will explore the concepts of time, space, and energy through creative movement and improvisational work. Areas of study: Body Alignment/Balance, Technique/Body Conditioning, Combinations/Memory, Rhythm, Composition, Choreography/Critique, and History. Requirement: Completion of Dance I or audition/permission from instructor.

#### **DANCE III (Grade 11-12)**

Dance III will take the Modern Dance concepts and techniques from Dance I & II to build personal choreography for performance. The class will experiment with various form and style of composition—individually, in duets, and with a group. Requirement: Successful completion of Dance I and II or audition/permission from instructor.

#### **DANCE IV (Grade 12)**

Creative and performing dance is the major emphasis of dance study on the fourth level. Creative process is studied and students develop an awareness of dance and its place in culture. Requirement: Successful completion of Dance I, II and III or audition/permission from instructor.

#### **DANCE ENSEMBLE (Grade 9-12)**

Dance Ensemble is for **auditioned members** of the school dance program and for future performance dance ensembles. This class provides students the opportunity to develop an advanced level of dance technique and refine skills as both choreographers and performers. Participation in after school rehearsals and evening events will be expected.

### **MUSIC-INSTRUMENTAL MUSIC**

#### **BAND I, II, III, IV (Grades 9-12)**

Band marches in parades and competitions, plays concerts, and represents the school in many events. Band requires 12 months per year with one required week of band camp in the summer. For more information about fees, camp and band refer to the band handbook which is available from the band director.

*TO PRE-REGISTER FOR VARSITY BAND, STUDENTS MUST REGISTER FOR ONE OF THE FOLLOWING CATEGORIES: FRESHMAN-BAND I; SOPHOMORES-BAND II; JUNIORS-BAND III; SENIORS –BAND IV.*

#### **FLAGS/RIFLES/GUARD\***

Guard members are enrolled in Varsity Band and are required to perform at all football games and/or spring performances. Evening and weekend rehearsals are required. Audition required to enroll in this course.

#### **JAZZ ENSEMBLE**

*Audition and Instructor permission required **before** registering.*

Private lessons are encouraged. Students are selected for Jazz Ensemble based on the ability and needs of the ensemble.

## **JAZZ IMPROVISATION (Grades 10-12)**

Jazz Improvisation is designed to assist the individual student with the development of jazz improvisational skills in preparation for membership in the Jazz Ensemble. Instructor permission required.

## **MUSIC HISTORY AND APPRECIATION**

This course will introduce students to the history of music from the surviving examples of beginning musical forms to the contemporary pieces from around the world. Covering early musical forms, classical music, film music, Broadway and other traditions, this course covers the relationship between music and social movements and reveals how music enhances our global society. Students will perform on instruments, explore musical sounds through technology, compare characteristics on a variety of genres and analyze multi-cultural influences on music.

## **ADVANCED PLACEMENT MUSIC THEORY**

This course integrates aspects of melody, harmony, texture, rhythm, form, musical analysis, elementary composition and, to some extent, history and style. Musicianship skills such as dictation and other listening skills, sight-singing, and keyboard harmony are considered an important part of the theory course. The student's ability to read and write musical notation is fundamental to this course. It is also strongly recommended that the student will have acquired at least basic performance skills in voice or on an instrument.

## **PERCUSSION ENSEMBLE**

This course is devoted to the study of mallet instruments as well as other percussion instruments. Student selection is based on ability and needs of the ensemble. Instructor permission required

## **PIANO I (Beginning Level)**

Course is a hands-on beginning piano class with limited enrollment. Recommended for students wishing to study music beyond high school.

## **GUITAR (Grades 9-12)**

This class is for beginning guitar students. We will use acoustic guitars only and students may use school-owned guitars if they do not own their own instrument. The course will cover basic music and chord reading, basic strum and pick patterns, and basic improvisational techniques.

## **GUITAR II**

This class builds on skills and knowledge students have gained in Guitar I.

## **MUSIC-VOCAL**

### **CHORUS I, II, III, IV (Grades 9-12)**

Chorus in these levels is offered to students interested in expanding their singing skills. Emphasis is on proper breathing, part-singing, music reading skills, terminology, and other skills. Students may perform at various functions after school. Attendance at performances is part of learning and part of the student's grade. After school rehearsals are required.

### **SHOW CHOIR (Grades 9-12)**

Students enrolled in this class enjoy the stage performance of music in its many forms. Part-singing and vocal independence are emphasized through large and small group and solo singing. Stage presence through facial expression and choreography appropriate to musical styles and acappella work are emphasized. Singing and dancing ability are evaluated. After-school rehearsals and evening events are to be expected. Attendance to all functions is part of student grade. Participation in after school rehearsals and evening events will be expected. Permission from the director and audition required.

### **CHAMBER CHOIR (Grades 11-12, or with permission from the Director)**

The class is offered to advanced vocalists with plans to continue music performances after high school. Emphasis is on vocal pedagogy, ear training, solfeggio, and varied repertoire. After school participation required. Audition required. (Vocal students are given the opportunity to audition for WV All-State Chamber Choir and the WV All-State Chorus as well as the Regional Solo and Ensemble Festival ).

## **THEATRE**

### **ACTING I, II, III, IV (Grades 9-12)**

One play each semester will be performed, and actors will participate in Regional/State competition. Prerequisites for Acting II, III, and IV classes are Theatre I and II and /or III and permission/audition from instructor. Performances for school and community are expected sometimes with minimal rehearsal time. Class and rehearsal attendance are strongly enforced. After school and weekend hours may be required.

### **THEATRE I (Grades 9-12)**

Theatre I will study theatre history and relate historical pieces to modern ideas and themes, learn stage terminology, voice and diction exercises, stage movement, acting techniques, and playwriting skills. After school and weekend hours may be required.

### **THEATRE II (Grades 10-12)**

A more in-depth study of theatre history and the technical side of theatre will be explored. Students are required to participate in the Regional Competition 2<sup>nd</sup> semester. Weekend and after school time required.

### **THEATRE III (Grades 11-12)**

The Theatre III student will study a variety of acting techniques. Theatre III students will compete at the Regional/State Competition with an actualized technical project entry from the provided list of projects. Students may perform an actualized play for an audience during school hours and/or after-school hours. After school rehearsal and weekend rehearsals will be required.

### **THEATRE IV (Grade 12)**

Theatre IV students will perform in plays from historical adaptations for a public audience. They will create their own plays based on a historical piece and adapt them to modern times. Theatre IV students will participate in Regional/State Competition. After school and week end rehearsals will be mandatory.

### **STAGECRAFT (Grades 9-12)**

The purpose of this class is to maintain the stage and auditorium while building sets, props, and costumes for productions. It is designed to give students experience in the theatre and arts without acting or performing. Students who take this class will be expected to clean, build and paint sets, study about and maintain theatrical systems, props and/or costumes.

### **TV/VIDEOTAPE (Grades 9-12)**

The TV/Videotape course exposes students to the materials, process, and artistic techniques in television or videotape. Students learn about the operation of a camera, lighting techniques, camera angles, depth of field, composition, storyboarding, sound capture, and editing techniques. As students advance, they will be encouraged to develop their own artistic style. This class meets after school and there is required attendance to evening activities. Application and teacher permission required.

## **VISUAL ARTS**

### **GENERAL ART I (Grades 9-12)**

This course is an introduction to a variety of art activities and techniques, including elements of design, line color value, shape, form, and space.

### **GENERAL ART II (Grades 10-12)**

*Prerequisite for Art II is Art I.* This course is designed to teach drawing, perspective, crafts, color theory, design, and watercolors.

### **GENERAL ART III (Grades 10-12)**

*Prerequisite for Art III is Art I and Art II.* This course will build on Art II with other techniques and media. It will introduce painting procedures in acrylics, pen and ink, printmaking and various media.

### **GENERAL ART IV (Grades 10-12)**

*Prerequisite for Art III is Art I, Art II, and Art III.* This class will increase sophistication in areas that were developed in Art III. Painting with oils will be introduced. Students will work in printmaking, drawing, and art history. Portfolios will be developed.

### **ADVANCED PLACEMENT STUDIO ART (Grades 11-12)**

Advanced Placement Studio Art makes it possible for highly motivated high school students to do college-level work. Students who have taken Art I and Art II are possibly eligible. Interested candidates must submit a 5 piece portfolio to the AP instructor. It should include: a landscape, still life, portrait/self portrait, mixed media collage, and one student choice.

### **ART HISTORY, APPRECIATION AND AESTHETICS (9-12)**

The students identify, discuss, and compare cultural and multi-cultural influences in art.

### **GRAPHIC DESIGN (11-12)**

Computer graphic issues will be explored in this yearlong course. ***Teacher permission required.***

### **CRAFTS WORKSHOP\* (9-12)**

Crafts may include projects in the following areas: paper, basket weaving, clay, painting, scrapbooking, and jewelry. Various historical backgrounds of projects will be explored.

### **DRAWING\* (9-12)**

This is a beginning drawing class designed to give the student an in-depth study in the basics of drawing with various media. Drawing is a prerequisite for Printmaking and Painting.

### **PAINTING\* (9-12)**

*Prerequisite for this class is Art I or Drawing.* Students will learn techniques in acrylics or watercolors. Instruction on the use of the two media will rotate every two years. Use of materials, types of background, and different subject matter will be explored. Artists and the history of the medium will be studied.

### **PRINTMAKING\* (Grades 10-12)**

*Prerequisite for this class is Art I or Drawing.* This course will include three types of printmaking: intaglio, relief, and silk-screen. History and creative printing design are explored.

## **BUSINESS/MARKETING/INFORMATION TECHNOLOGY**

### **A+ ESSENTIALS (GRADES 10-12) *EDGE Credit***

This course introduces the student to the knowledge required to understand the fundamentals of computer technology, networking, and security, and will have the skills required to identify hardware, peripheral, networking, and security components. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. **Prerequisite: Fundamentals of Computer Systems**

### **A+ PRACTICAL APPLICATIONS (GRADES 10-12) *EDGE Credit***

This course introduces the competencies for an entry-level IT professional who has hands-on experience in the lab or the field. Successful candidates will have the skills required to install, configure, upgrade, and maintain PC workstations, the Windows OS and SOHO networks. The successful candidate will utilize troubleshooting techniques and tools to effectively and efficiently resolve PC, OS, and network connectivity issues and implement security practices. This course incorporates the Simulated Workplace model\*\*. **Prerequisite: Fundamentals of Computer Systems & A+ Essentials**

### **ACCOUNTING PRINCIPLES I (GRADES 11-12) *EDGE Credit***

This course focuses on accounting concepts and practices. Students learn to prepare financial statements for proprietorships, partnerships, and corporations, prepare payroll, and develop an understanding of business terminology. This course incorporates the Simulated Workplace model\*\*.

### **ACCOUNTING PRINCIPLES II (GRADE 12) *EDGE Credit***

This course focuses on advanced accounting including payroll systems, special journals, depreciation, accrued revenue, expenses, partnerships, and corporations. This course incorporates the Simulated Workplace model\*\*.

### **BUSINESS COMPUTER APPLICATIONS I *EDGE Credit***

#### **MICROSOFT IMAGINE ACADEMY WORD & EXCEL (GRADES 9-12)**

This course is designed to develop student understanding and skills in such areas as Microsoft Word and Microsoft Excel. This course prepares students for the Microsoft Office Word 2016 Office Specialist Exam and for the Microsoft Office Excel 2016 Office Specialist Exam. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts.

### **BUSINESS COMPUTER APPLICATIONS II *EDGE Credit***

#### **MICROSOFT IMAGINE ACADEMY POWERPOINT & ACCESS (GRADES 10-12)**

This course is designed to develop student understanding and skills in such areas as Microsoft PowerPoint and Microsoft Access. This course prepares students for the Microsoft Office PowerPoint 2016 Office Specialist Exam and for the Microsoft Office Access 2016 Office Specialist Exam. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. This course incorporates the Simulated Workplace model\*\*. **Prerequisite: Successful completion of Business Computer Applications I**

### **BUSINESS AND MARKETING ESSENTIALS (GRADES 9-12) *EDGE Credit***

This course focuses on exploring careers in business and marketing, the role of marketing in today's business world, and a broad overview of economics and ethics.

### **DESKTOP PUBLISHING (GRADES 10-12) *EDGE Credit***

This course focuses on proper design skills related to print publications. Appropriate page layout, typography, and publishing concepts will be covered. Students will use Adobe InDesign and Microsoft Publisher. This course incorporates the Simulated Workplace model\*\*. (It is required that students complete Digital Imaging/Multimedia before this class.)

### **DIGITAL IMAGING/MULTIMEDIA (GRADES 9-12) *EDGE Credit***

This course focuses on knowledge and skills for producing images, animation, photography, and video. Students will learn to use Adobe Illustrator, Photoshop, and Flash.

\*\*Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see page 32 for more information:

### **FUNDAMENTALS OF COMPUTER SYSTEMS (GRADES 9-12) *EDGE Credit***

This course introduces the student to the knowledge and technical skills for all courses in the Computer Systems Repair Technology pathway. Areas of study include computer hardware, data representation, operating system, utility, productivity software, communications and networks, and the Internet. Emphasis will be placed on personal and professional ethics, and students will explore a variety of career opportunities.

### **MARKETING PRINCIPLES (GRADES 10-12) *EDGE Credit***

This course focuses on the fundamentals of marketing, economics, and the necessary skills for successful marketing. This course incorporates the Simulated Workplace model.\*\*

### **MARKETING APPLICATIONS (GRADES 11-12) *EDGE Credit***

This course focuses on advanced skills needed in marketing and related occupations. Emphasis is placed on careers in business and marketing, the role of marketing in the business world and the free enterprise economy, management and entrepreneurship, selling, promotion, and marketing research. Students are encouraged to become active members of the national student organization, DECA. This course incorporates the Simulated Workplace model\*\*. **Prerequisite: Marketing Principles**

### **NETWORKING ESSENTIALS (GRADES 10-12) *EDGE Credit***

This course introduces the student to the knowledge base and technical skills related to networking. Areas of study include media and topologies, protocols and standards, network implementation, and network support. Content standards and objectives are based on testing objectives for the CompTIA Network+ certification. Emphasis will be placed on personal and professional ethics, and students will explore a variety of career opportunities. This course incorporates the Simulated Workplace model\*\*.

**Prerequisite: Fundamentals of Computer Systems , A+ Essentials.**

### **SPORTS, ENTERTAINMENT, RECREATION MARKETING (GRADES 10-12)**

This course focuses on marketing principles specifically relating to sports, entertainment , and recreation marketing including promotion, advertising, and careers in these areas. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts.

### **WEB PAGE PUBLISHING (GRADES 10-12) *EDGE Credit***

This course focuses on basic Web page design concepts and provides practice in creating Web sites using HTML and Adobe Dreamweaver. This course incorporates the Simulated Workplace model.\*\* (It is required that students complete Digital Imaging/Multimedia prior to this class.)

\*\*Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see page 32 for more information:

## **FAMILY AND CONSUMER SCIENCES**

(\*Denotes semester course)

All FACS classes encourage students to become active members of the FCCLA (Family, Career, and Community Leaders of America).

### **APPLIED DESIGN – FASHION MERCHANDISING I\* (Grades 9-12)**

This course explores topics related to fashion, marketing of fashion, and fashion merchandising. Topics covered include, but are not limited to basic fashion, elements and principles of design, history of fashion, fashion styles, fashion design, fashion marketing, and careers in fashion. In class projects will be a significant portion of this class.

### **APPLIED DESIGN – FASHION MERCHANDISING II\* (Grades 10-12)**

This course explores topics related to fashion, marketing of fashion, and fashion merchandising. Topics covered include but are not limited to textiles, fibers and fabrics, fashion designers, basic economic concepts, satisfying the fashion market, care of clothing, fashion design, fashion marketing, and careers in fashion. In class projects will be a significant portion of this class. Prerequisite: Applied Design—Fashion Merchandising I.

### **APPLIED DESIGN – HOUSING / INTERIOR DESIGN (Grades 9-12)**

This course explores topics related to the housing market and interior design. Topics covered include, but are not limited to, housing and human needs, floor plans, housing styles and choices, elements and principals of design, furniture styles, backgrounds and accessories, budgeting, careers in housing, interior design and famous interior designers. In class projects will be a significant part of this class.

### **PARENTING AND STRONG FAMILIES I (PSF) (Grades 9-12)**

This course explores topics related to parent readiness, family planning, child development, parenting practices, and strong family development. Topics include human reproduction, family planning, prenatal development and care, labor and delivery, social, emotional, intellectual, and physical development of babies. Included in this class is the use of Real Care Baby Simulators and the Pregnancy Profile Simulators.

### **PARENTING AND STRONG FAMILIES II (PSF)\* (Grades 9-12)**

This course explores topics related to parent readiness, family planning, child development, parenting practices, and strong family development. Topics covered will include parental care of children, child care outside the home, social, emotional, intellectual, and physical development of children, careers in child care and/or working with children. It is **not** necessary to take PSF I to take PSF II.

### **PERSONAL RESOURCE MANAGEMENT\* (Grades 11-12)**

This course is about living on your own successfully. Learn how to find, apply for, and maintain a job, create a resume and cover letter, manage money and expenses, differentiate between and calculate gross and net pay, explore banking, various loans, leases, fixed and variable expenses, insurance, credit and taxes.

### **FUNDAMENTALS OF HUMAN SERVICES (RELATIONSHIPS) (Grades 11-12)**

This course is designed to focus on how to successfully manage the various relationships a person encounters during the course of their lives as well as to explore getting to know himself/herself. Social issues and concerns of individuals, families, and communities will be explored. Other topics to be included are cultural diversity, effective communication skills, conflict resolution, problem solving skills, and the power of the family and society.

### **NUTRITION & FOOD I\* (Grades 9-12)**

This course is offered first semester and consists of a study of nutrition, basic principles of food handling, food preparation skills, service, and storage of food. Lab preparations will be related to the subject matter studied.

### **FOOD PREPARATION\* (Grades 9-12)**

This course is designed to provide students with a working knowledge of food, nutrition, and consumerism. The course will cover analyzing and emphasizing nutrition, family meals, investigating foreign foods, and discovering regional and traditional foods. Emphasis will be placed on cooking in the lab. Prerequisite: Successful completion of Nutrition & Food I.

### **PROFESSIONAL START CULINARY ARTS/PRO START I (Grade 11) *EDGE Credit***

Pro Start I is a course that introduces the students to careers in food service and teaches basis skills and knowledge that is needed for success in the foodservice industry. This course is filled with basic knowledge of nutrition, food-service equipment, safety and sanitation, kitchen basics, salads, garnishes, fruits, vegetables, breakfast foods, sandwiches, and business math. The student will participate in the student-run JHS Cougar Café. Students will also be eligible for National Restaurant Certification. This course is offered at Jefferson High School or James Rumsey Technical Institute and incorporates the Simulated Workplace model\*.

**ProStart I A—yearlong (2 periods—1 credit each period)**

**ProStart I B—yearlong (2 periods—1 credit each period)**

### **PROFESSIONAL START CULINARY ARTS/PRO START II (Grade 12) *EDGE Credit***

Prerequisite: ProStart I. Classroom experiences deal with customer relations, menu planning, management skills, tourism, cost control, marketing, communication, soups, stocks & sauces, baking & pastries, potatoes & grains, seafood, meats and poultry. Students are eligible to receive National Restaurant Certification from this class. The students will operate The JHS Cougar Cafe. This course is offered at Jefferson High School and James Rumsey Technical Institute and incorporates the Simulated Workplace model\*\*.

**Pro-Start II A—yearlong (2 periods—1 credit each period)**

**Pro-Start II B—yearlong (2 periods—1 credit each period)**

### **PROFESSIONAL START CULINARY ARTS/PRO START CoOp ED. (Grade 12)**

Through the ProStart program, a partnership is created between the school and local restaurateurs to provide job-related internships to the students. Students must be enrolled in ProStart II, have an approved job and provide his/her own transportation. This course incorporates the Simulated Workplace model\*\*.

### **CAREERS IN EDUCATION**

These courses are an innovative approach designed to attract students to the teaching profession through a challenging introduction to teaching. Students will participate with hands-on learning experiences in actual classrooms. These courses are offered at Washington High School only. (2 periods—all year)

**Careers in Education I, Foundations in Education,**

**Careers in Education II, Student Learning, Development, and Diversity**

**Careers in Education III, Educational Psychology and Learning** \*\*This course incorporates the Simulated Workplace model.

**Careers in Education IV, Teacher Preparation Experience** \*\*This course incorporates the Simulated Workplace model\*\*.

### **\*\*Simulated Workplace**

Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas:

- Transform the classroom environment into a replicated company.
- Utilize time clocks or some other form of formal attendance recording process.
- Adhere to JCS Simulated Workplace Drug Testing Procedures.
- Conduct an application/interview process for enrolling students
- Develop a company name and procedures/protocol manual.
- Ensure all students receive quality safety training.
- Begin class period with a 5-10 minute company meeting.
- Submit data reports developed by students and instructor.
- Establish work teams and an organizational system with students rotating across teams.
- Integrate the 5S Continuous Quality Improvement principals.
- Participate in Business and Industry yearly onsite evaluations.
- Utilize a portfolio system for students to document learning, credentials earned, projects completed.



## **WORLD LANGUAGE**

*(Because of enrollment numbers for each class students may not receive their first request in world language courses.)*

### **FRENCH I**

Emphasis will be placed on the acquisition of basic communication skills. Basic vocabulary and grammar topics will be introduced. The student will learn to write simple sentences and to converse on general topics. Culture of France and in French-speaking countries is introduced.

### **FRENCH II**

Students will continue to develop and to refine communication skills. Emphasis will be placed on speaking, listening, writing, and reading. More in-depth study of French cultures will be presented.

### **FRENCH III**

Communication skills will be extended allowing students opportunities to express their own thoughts. Developing mastery of grammatical patterns, vocabulary, reading and writing skills will be emphasized. Culture, history, and geography of French-speaking countries are studied in detail.

### **FRENCH IV**

This course emphasizes oral proficiency and accuracy in conversational situations along with more in-depth exploration of literature and history. Opportunities for self expression are offered to the student in oral and written mediums. The course will prepare students for a college language program.

### **SPANISH I**

Emphasis will be placed on the acquisition of basic communication skills. Basic vocabulary and grammar topics will be introduced. The student will learn to write simple sentences and to converse on general topics. Culture of Spain and in Spanish-speaking countries is introduced.

### **SPANISH II**

Students will continue to develop and to refine communication skills. Emphasis will be placed on speaking, listening, writing, and reading. More in-depth study of Hispanic cultures will be presented.

### **SPANISH III**

Communication skills will be extended allowing students opportunities to express their own thoughts. Developing mastery of grammatical patterns, vocabulary, reading and writing skills will be emphasized. Culture, history, and geography of Spanish-speaking countries are studied in detail.

### **SPANISH IV**

This course emphasizes oral proficiency and accuracy in conversational situations and more in-depth exploration of literature and history. Opportunities for expression are offered to the student in oral and written mediums. The course will prepare the student for a college language program.

### **ADVANCED PLACEMENT SPANISH**

This course is intended for students who wish to develop proficiency and integrate their language skills, using authentic materials and sources. Students who enroll should already have attained a reasonable proficiency in using the language and be knowledgeable of cultures of Spanish-speaking peoples. Although these qualifications may be attained in a variety of ways, it is assumed that most students will be in the final stages of their secondary school training and will have completed appropriate course work in the language.

# **MATHEMATICS**

## **MATH 8/1**

The Math 8/I course is an accelerated high school credit math class combining both Math 8 and Math I content standards. This is a course for students who have completed a compacted Math 7 Honors course that includes some Math 8 content. Consideration for this course also requires a placement test for eligibility.

## **HIGH SCHOOL MATH I**

Because many of the topics previously included in the Algebra I course are in the Next Generation Grade 8 standards, the High School Math I course starts with advanced topics and includes more in depth work with linear functions, exponential functions and relationships, transformations, statistics, connecting algebra and geometry through coordinates. Course is offered in three levels: Honors, College Prep, and On-level.

## **HIGH SCHOOL MATH I LAB**

Math I Lab will provide extended time and instruction for mastery of Math I standards.

## **HIGH SCHOOL MATH II**

The High School Math II course builds on the Math I course. The High School Math II course focuses on six critical areas: rational exponents, quadratic functions, exponential and specialized functions, probability, triangle similarity, and circles. Course is offered in two levels: Honors and On-level.

## **HIGH SCHOOL MATH III STEM or MATH III LA or MATH III TR**

The High School Math III course builds on the Math II course and offers a more personalized learning plan aligned to students' college & career aspirations. It is in Math III that students pull together and apply the accumulation of learning that they have from their previous courses. This course provides content grouped into four critical areas: probability and statistics; polynomial, rational and radical functions; right triangle trigonometry; and mathematical modeling and contextual applications. Course is offered in three levels: STEM (Science, Technology, Engineering, Math) LA (Liberal Arts), or TR (Technical Readiness).

## **HIGH SCHOOL MATH IV & MATH IV HONORS**

The High School Math IV course builds on the Math III course. Students take an extensive look at the relationship among complex numbers, vectors, and matrices. They build on their understand of functions, analyze rational functions using a limits approach, and create functions by compositions and inverses. Students expand their work with trigonometric functions and their inverses, conic sections, and probability. This course is offered in two levels: Math IV and Math IV Honors. That Math IV Honors prepares students for AP Calculus AB.

## **HIGH SCHOOL MATH IV – TECHNICAL READINESS**

The High School Math IV TR builds on the Math III TR course. Students will continue their study of polynomial, rational, and radical functions; probability and statistics; and right triangle trigonometry while using mathematical modeling and contextual applications to understand the concepts.

## **TRANSITION MATHEMATICS FOR SENIORS**

Transitional Math for Seniors prepares students for entry-level credit-bearing liberal studies mathematics course at the post-secondary level. This course will solidify quantitative literacy by enhancing numeracy and problem solving skills. Students will investigate and use the fundamental concepts of algebra, geometry, and data and statistics. The CSOs which comprise this course are selected from Math I, Math II and Math III. \*This course is designed specifically to meet the needs of students who have not met the benchmark scores for pathways to College and Career Readiness.



\*All high school juniors who did not score a 3 or 4 on the West Virginia General Summative Assessment (WVGSA) or an ACT Math score of 19 or higher or a SAT Math score of 460 or higher will be required to enroll in the Transition Math course.

## ADVANCED PLACEMENT STATISTICS

This course exposes students to four broad conceptual themes of statistics and probability: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. All students who register for this course will be expected to take the AP exam in May.

## ADVANCED PLACEMENT CALCULUS AB

This course covers the fundamental ideas and applications of differential and integral Calculus presented in connection with polynomial functions, trigonometric functions, and exponential and logarithmic functions. All students who register for this course will be expected to take the AP exam in May.

## ADVANCED PLACEMENT CALCULUS BC

The AP Calculus BC curriculum includes the study of series of numbers, power series, and various methods to determine convergence or divergence of a series. Students will become familiar with Maclaurin series for common functions and general Taylor series representations. Other topics include the radius and interval of convergence and operations on power series.

## COLLEGE ALGEBRA\*

Students in this course will have an opportunity to earn dual credit through WHS or JHS and West Virginia University. This is a college-level web-enhanced Algebra course. To participate, students are required to meet the qualifications of a C or better in Algebra I, Geometry, and Algebra II or Math I, Math II, and Math III. In addition, students need a cumulative GPA of 3.0 or better and pass an entrance exam that is administered in the spring before enrollment in the course. Accessibility to the internet outside of the school is highly recommended. The student will also be responsible for paying a tuition cost. \*This is a one semester course.

## COLLEGE TRIGONOMETRY\*

Students in this course will have an opportunity to earn dual credit through WHS or JHS and West Virginia University. This is a college-level web-enhanced Trigonometry course. To participate, students are required to meet the qualifications of a C or better in College Algebra along with the qualifications for College Algebra. Accessibility to the internet outside of the school is highly recommended. The student will also be responsible for paying a tuition cost. \*This is a one semester course.

*For planning purposes find your current grade and class and follow the path provided below.*

8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
Math 8	Math I, Math I Lab or Math I Support	Math II	Math III LA or Math III TR	Math IV Math IV TR College Algebra, College Trigonometry, or Transition Mathematics for Seniors
Math 8	Math I, Math I Lab or Math I Honors	Math II or Math II Honors	Math III STEM Math III LA or Math III TR	Math IV Math IV TR College Algebra, College Trigonometry, Transition Mathematics for Seniors AP Statistics, or AP Calculus
**Math 8/I	Math II Honors or Math II	Math III STEM or Math LA	Math IV AP Statistics or AP Calculus	Math IV College Algebra, College Trigonometry, AP Statistics or AP Calculus
Math II Honors	Math III STEM	Math IV AP Statistics or AP Calculus	Math IV AP Calculus AP Statistics	Math IV, College Algebra, College Trigonometry, AP Statistics, or AP Calculus

\*\*A Compacted curriculum for advanced 8th grade learners incorporating content standards in Math 8 and Math I. One high school credit will be awarded. Honors course requirements (SOP 7.22a) will be applied as in the past. This course replaces traditional high school offerings of Algebra and Geometry.

## **PHYSICAL EDUCATION AND HEALTH**

(\*Denotes semester course)

### **ADVANCED WEIGHT TRAINING & PHYSICAL FITNESS\* (Grades 10-12)**

This class is designed to aid in the development of total body conditioning (strength, flexibility, cardiovascular endurance, muscular endurance, and joint stability). Students will develop a personal fitness plan and participate in a variety of activities designed to enhance strength, power, agility, speed, and rhythmic movements. This course is designed for those students who desire a more intense physical experience. Students may take this class each year and receive credit for all four years.

### **ATHLETIC TRAINING\* (Grades 10-12)**

Athletic Training is a course designed for students who want to develop an understanding of sports medicine. This course will focus on a trainer's responsibilities and legal ramifications, physical conditioning and training principles. This course will be appropriate for the on level student as well as the college-bound students.

### **ATHLETIC TRAINING PRACTICUM\* (Grades 10-12)**

This is a practicum class taken by students who have successfully completed the athletic training class. Students will also gain practical experience as an athletic trainer by working with extra curricular athletic teams as a student athletic trainer. After school participation in this class is required. Each student is required to work 5 hours per week.

### **FOUNDATIONS OF HEALTH SCIENCES (Grades 10-12) *EDGE Credit***

This course introduces information about health care systems and health careers. Information is included on disease transmission, human needs, and nutrition. Students are provided with opportunities to acquire First Aid and CPR certification and are encouraged to affiliate with career-related student organizations.

### **HEALTH (Grades 9-12)**

This is a required course of study needed for graduation that teaches the interrelationships of human body systems.

### **INDIVIDUAL AND DUAL SPORTS I\* (Grades 10-12)**

This course is a participation class covering the history, basic rules, skills, terminology, and strategies relative to, but not limited to the following sports: tennis, horseshoes, badminton, and table tennis.

### **INDIVIDUAL AND DUAL SPORTS II\* (Grades 10-12)**

This course is a participation class covering the history, basic rules, skills, terminology, and strategies relative to, but not limited to, the following sports: golf, pickle ball, and table tennis.

### **PHYSICAL EDUCATION/WELLNESS (Grades 9-12)**

This course emphasizes lifetime sports and fitness and is *required* for graduation.

### **TEAM SPORTS I\* (Grades 10-12)**

This course is a participation class covering the history, basic rules, skills, terminology, and strategies relative to, but not limited to, the following sports: football, ultimate frisbee, basketball, and team handball. In this course, students will be expected to perform fitness related activities.

### **TEAM SPORTS II\* (Grades 10-12)**

This course is a participation class covering the history, basic rules, skills, terminology, and strategies relative to, but not limited to, the following sports: softball, outdoor and indoor soccer, and volleyball. In this course, students will be expected to perform fitness related activities.

## **READING AND ENGLISH LANGUAGE ARTS**

(\*Denotes semester course)

### **ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION 11**

An AP course in English language and composition engages both effective writing and critical reading. The course emphasizes the study of a variety of texts and a variety of writing tasks. As writers, the course emphasizes the planning, writing, and revising of sustained essays. As readers, the students will analyze the rhetoric and style of prose passages and describe a reader's response to the author's decision about language, structure, and content. All students who register for this course will be expected to take the AP exam in May.

### **ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION 12**

An AP course in English literature and composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts, and becoming skilled writers who compose for a variety of purposes. All students who register for this course will be expected to take the AP exam in May.

### **CREATIVE WRITING \* (Grades 9-12)**

Students will participate in a variety of writing experiences designed to develop flexibility, fluency, and accuracy of expression.

### **ENGLISH 9**

This course is designed to acquaint students with literature. In other course work, emphasis is placed on teaching and revisiting grammar skills, on spelling and vocabulary lessons, on teaching and revisiting the sentence and the paragraph, and on practicing and revisiting a five-paragraph essay. Careers will be researched.

### **ENGLISH 9 COLLEGE PREPARATORY**

This course is directed to those who have mastered basic grammar skills, sentence formation, and paragraphing. Instruction will be geared around literature of the world and expanding the students' written and spoken vocabulary along with spelling. Career research will take place.

### **ENGLISH 9 HONORS**

This course is designed for those advanced students who are highly motivated and self-disciplined. The literature coursework centers around literature of the world. Grammar and composition skills will be taught and revisited as needed. Career research will take place.

### **ENGLISH 10**

This course explores the study of literature. An emphasis is placed on reinforcing skills in grammar, spelling, vocabulary, and writing. English 10 will also present materials to assist students in the selection of career majors as required for graduation.

### **ENGLISH 10 COLLEGE PREPARATORY**

In this course emphasis is placed upon developing writing skills. The students will study various literary genres, review grammar concepts, and expand vocabulary and spelling skills. English 10 College Preparatory will also present materials to assist students in the selection of career concentration as required for graduation.

### **ENGLISH 10 HONORS**

This course is for highly motivated students capable of working beyond their grade level. This course will focus on world literature, methods of writing, spelling, and vocabulary. Students electing to take this course should have mastered grammar usage skills. A research project is required. English 10 Honors will also present materials to assist students in the selection of career concentration as required for graduation.

### **ENGLISH 11**

Students will study a variety of genres to develop an appreciation of the varied components of their American heritage. A research project is required. The course incorporates grammar, sentence and paragraph writing, essay writing, spelling, and vocabulary.

### **ENGLISH 11 COLLEGE PREPARATORY**

This is an accelerated class designed to prepare students to write and read on an advanced level. The course incorporates grammar, essay writing, spelling, vocabulary, a study of literature, and required reading of selected novels. A research project is required.

## **ENGLISH 11 HONORS**

The eleventh grade Honors English program is designed for highly motivated students who have mastered basic and intermediate skills involved in speaking, reading, writing, and critical thinking. Students will read and critically analyze imaginative and discursive literature as well as other selected works of literary merit. Through the study of writing models and through the writing of their own papers, students will learn to use language effectively and creatively and to organize their ideas coherently and clearly. Honors English 11 also places emphasis on the skills necessary for the SAT and ACT tests. A research paper is required.

## **ENGLISH 12**

In this course skills in grammar, spelling, and vocabulary are reinforced. Writing assignments include a business letter, job application, research paper and/or a project are required.

## **ENGLISH 12 COLLEGE PREPARATORY**

The class offers a survey course of British literature, a review of basic grammar skills, and an opportunity to develop and expand vocabulary. Much emphasis is placed on writing and editing. Requirements for this class include a research paper and/or project.

## **ENGLISH 12 CR**

English 12 CR is designed to prepare students to be college and career ready in high school English courses and college English courses. The course will review all topics in literature, composition and grammar in preparation for a two or four year college. Only students meeting the requirements as determined by the school counselors may be placed in this course.

## **NEWSPAPER (Grades 9-12)**

This course will focus on the fundamentals of journalistic writing. Students in this class will have opportunities to contribute articles to the school newspaper. Members of this class are responsible for the production of the school newspaper, submitting articles to local publications and assisting with school publicity. Teacher permission required.

## **SPEECH I\* (Grades 9-12)**

This course is a semester elective designed to provide students with the skills and strategies for planning, preparing, rehearsing, and delivering a variety of speeches in front of an audience.

## **YEARBOOK (Grades 9-12)**

This class will publish the annual edition of the school yearbook. Students enrolling in the class should have a basic knowledge of computers and/or keyboarding. Students interested in this class must complete an application, and a permission slip must be attached to the student registration form before the student will be enrolled in the course.

## **TRANSITION ELA FOR SENIORS**

Transition ELA for Seniors is designed for students who have not met the benchmark which determines college- and career-readiness. Its purpose is to develop mastery of the skills necessary to meet or exceed the benchmark score. A combination of units from the Literacy Ready Course has been selected as an example of the kinds of texts, assignments, and skills that can be incorporated in the Transition ELA for Seniors course. In order to meet the increased emphasis on disciplinary literacy two English language arts, one science, and one history unit has been selected. Transition ELA for Seniors can serve as a means to teach students the skills necessary to read, comprehend, and communicate effectively about rigorous texts in these disciplines. This course is designed specifically to meet the needs of students who have not met the benchmark scores for pathways to College and Career Readiness\*.

\*All high school juniors who did not score a 3 or 4 on the West Virginia General Summative Assessment (WVGSA) or an ACT ELA score of 18 or higher or a SAT Math score of 450 or higher will be required to enroll in the Transition ELA course.

## **SCIENCE**

### **EARTH & SPACE SCIENCE (Grade 9)**

This course focus on five Earth and Space Science content topics: Space Systems, History of Earth, Earth's Systems, Weather and Climate, and Human Sustainability.

### **HONORS EARTH & SPACE SCIENCE (Grade 9)**

This course is designed to prepare students to take advanced level science courses. Students will have an in-depth study of content found in many environmental fields of endeavor. Focus will be on five Earth and Space Science content topics: Space Systems, History of Earth, Earth's Systems, Weather and Climate, and Human Sustainability.

**Recommended Prerequisite: 8th Grade Science.**

### **BIOLOGY (Grade 10)**

This course is designed for students who desire and broader, in-depth study of the content found in many biological fields of endeavor. This course focus on five life science topics: Structure and Function, Inheritance and Variation of Traits, Matter and Energy in Organisms and Ecosystems, Interdependent Relations in Ecosystems, and Natural Selection and Evolutions. **Recommended Prerequisite: Math I**

### **HONORS BIOLOGY (Grade 10)**

This course is designed to prepare students to take Advanced Placement Biology. Students will have an in-depth study of content found in many biological fields of endeavor with emphasis in skills such as: scientific writing (lab reports and essays), graphing calculators and several labs using probe-ware technology and data analysis.

**Recommended Prerequisite: Math I**

### **ADVANCED PLACEMENT BIOLOGY (Grades 11-12)**

This is a second year biology course designed to be the equivalent of a college introductory course taken by biology majors during their freshman year of college. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes - energy and communication, genetics, information transfer, ecology, and interactions. All students who register for this course will be expected to take the AP exam in May. **Recommended Prerequisite: Honors Biology & Chemistry (may be taking Chemistry at the same time)**

### **ENVIRONMENTAL SCIENCE (Grades 11-12)**

This course is an advanced level lab course which builds on foundational knowledge of the chemical, physical, biological, geological processes and focus on the natural world. Through an inquire based program of study, all students will demonstrate environmental literacy as they explore the economic, social, political, and ecological interdependence in urban and rural areas. Students will synthesize information and experiences across disciplines as they acquire knowledge, values, and skills needed to protect and improve the environment.

### **CHEMISTRY (Grades 11 - 12)**

Chemistry is an advanced elective course designed for student pursuing STEM education and careers. Students will develop a deeper understand of concepts of Structure and Properties of Matter and Chemical Reactions.

**Recommended Prerequisite: Math II**

### **ADVANCED PLACEMENT CHEMISTRY (Grades 11-12)**

This is a second year chemistry course that provides students with a foundation to support future advanced course work in chemistry. Through inquiry-based learning, students develop critical thinking and reasoning skills. Student cultivate their understanding of chemistry and science practices as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. All student who register for this course will be expected to take the AP exam in May. **Recommended Prerequisite: Chemistry and Math II**

### **HUMAN ANATOMY & PHYSIOLOGY (Grades 11 - 12) *EDGE Credit***

This is an advanced elective course designed for students wanting a deeper understanding of the structure and function of the human body. Focus will be at both micro and macro levels reviewing cellular functions, biochemical processes, tissue interactions, organ systems and the interaction of those systems. **Recommended**

**Prerequisite: Biology & Chemistry (may be taking Chemistry at the same time)**

### **PHYSICAL SCIENCE – (Grades 11 - 12)**

This is an advanced elective course designed on the core concepts from chemistry and physics. This course emphasizes the concepts of Structure and Properties of Matter, Chemical Reactions, Forces and Interactions, Energy, and Waves and Electromagnetic Radiation. **Recommended Prerequisite: Earth and Space Science and Biology**

### **PHYSICS (Grades 11 - 12)**

Physics is an advanced elective course designed for student pursuing STEM education and careers. This course emphasizes a mathematical approach to the topics of Forces and Interactions; Energy and Waves and Electromagnetic Radiation. **Recommended Prerequisite: Completed or currently taking Math II**

### **ADVANCED PLACEMENT PHYSICS I (Grades 11-12)**

Advanced Placement Physics 1 is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power, mechanical waves and sound. It will also introduce electric circuits. The course emphasizes hands-on explorations of physics content and inquiry labs. All students who register for this course will be expected to take the AP exam in May. **Recommended Prerequisite: Concurrently taking Math III**

### **ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (Grades 11-12)**

This course is designed to be the equivalent of a one-semester, introductory college course in environmental science. The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. All students who register for this course will be expected to take the AP exam in May. **Recommended Prerequisite: Earth and Space Science, Biology, and Chemistry or Physical Science (may be taking Chemistry or Physical Science at the same time).**

### **FORENSIC SCIENCE (Grade 12)**

Forensics is an advanced elective course designed for student pursuing criminal investigation. This course covers the function of the forensic laboratory and its relation to successful criminal investigations and prosecutions. Topics include crime scene processing, investigative techniques, current forensic technology and related topics.

**Recommended Prerequisite: Biology and Chemistry (may be taking Chemistry at the same time)**



**SOCIAL STUDIES**  
(\*Denotes semester course)

**REQUIRED CLASSES**

**WORLD STUDIES (Grade 9)**

This study of the world emphasizes the historic, economic, geographic, political, and social structure of various cultural regions of the world from the dawn of civilization to 1900. Geography/map skills and critical thinking skills are emphasized.

**WORLD STUDIES COLLEGE PREPARATORY (Grade 9)**

This study of the world emphasizes the historic, economic, geographic, political, and social structure of various cultural regions of the world from the dawn of civilization to the 1900. Geography/map skills and critical thinking skills are emphasized. College level skills and research are required.

**WORLD STUDIES HONORS (Grade 9)**

This study of the world emphasizes the historic, economic, geographic, political, and social structure of various cultural regions of the world from the dawn of civilization to 1900. Honor students will be engaged in a rigorous curriculum and will be expected to read novels, do research and writing activities that will enhance their social studies skills in the historical, political, economical and geographical areas.

**ADVANCED PLACEMENT WORLD HISTORY (Grades 9 -12)**

The Advanced Placement World History course is a survey of the evolution of global contacts and interaction with various types of human societies. AP World History may be substituted for World Studies Honors. All students who register for this course should expect rigorous in-class study along with outside assignments and readings. Students who enroll in this course are expected to take the AP exam in May.

**US STUDIES (Grade 10)**

Students will embark on an educational trip that will take them from early people and societies of the Americas, to European exploration, settlement, revolt, resistance, and into the trials and tribulations of the West. Students will be involved in the people, places, and events that shaped the United States and gain an understanding of the problems that faced the foundation of a new nation.

**US STUDIES COLLEGE PREPARATORY (Grade 10)**

Students will embark on an educational trip that will take them from early people and societies of the Americas, to European exploration, settlement, revolt, resistance, and into the trials and tribulations of the West. Students will be involved in the people, places, and events that shaped the United States and gain an understanding of the problems that faced the foundation of a new nation. Geographical map skills and critical thinking skills are emphasized. Various projects and research activities are also part of the course content.

**US STUDIES HONORS (Grade 10)** This course covers the first half of American History from the colonial period up to World War I. This class provides students with insights on events and issues and leads them to an appreciation of the relevance of history in understanding the past, present and determining the future. Students will be engaged in a rigorous curriculum, and will be expected to read novels, primary sources and do research and writing activities that will enhance their social studies skills in history, government, economics and geography. This course is intended to prepare students to take an Advanced Placement Class in the 11<sup>th</sup> or 12<sup>th</sup> grade.

**CONTEMPORARY US STUDIES (Grade 11)**

Students will learn the major events and the people of the 20th century that have shaped the world in which they live. The history and geography of the United States are placed in global context to further students' understanding of the interdependency of the United States with other countries.

**CONTEMPORARY US STUDIES COLLEGE PREPARATORY (Grade 11)**

This class helps students develop insight and appreciation of the relevance of history in understanding the past, present, and future. The history and geography of the United States are placed in a global context to further students understanding of the interdependency of the United States with other countries. Map skills and critical thinking skills are emphasized. Various projects and resource activities are also part of the course content. Students will be expected to read novels, do research and writing activities that will enhance their social studies skills in history, politics, economics, and geography.

### **CONTEMPORARY US STUDIES HONORS (Grade 11)**

This class helps students gain an understanding of the relevance of history - past, present, and determining the future. The history and geography of the United States are placed in a global context to further students' understanding of the interdependency of the United States with other countries. Students will be expected to read novels, do research and writing activities that will enhance their social studies skills in history, politics, economics, and geography. The course is designed to prepare students to take an Advanced Placement Class in the 12<sup>th</sup> grade.

### **ADVANCED PLACEMENT US HISTORY (Grades 11-12)**

Advanced Placement US History is a course of the development of the United States and its role as a world power. AP US History may be substituted for Contemporary Studies. All students who register for this course should expect rigorous in-class study along with outside assignments and readings. Students who enroll in this course are expected to take the AP exam in May.

### **CIVICS - NEXT GENERATION (Grade 12)**

Students will have an understanding of the workings of our government, sound financial literacy and global awareness essential to the preservation and improvement of American constitutional democracy.

### **CIVICS –NEXT GENERATION COLLEGE PREPARATORY (Grade 12)**

Students in college preparatory will be expected to complete a more rigorous curriculum and develop an understanding of the workings of our government, sound financial literacy, and global awareness essential to the preservation and improvement of American constitutional democracy.

### **ADVANCED PLACEMENT US GOVERNMENT - POLITICS (Grade 12)**

Advanced Placement US Government will give students an analytical perspective on government and politics in the United States. This course may be substituted for the Civics - Next Generation credit. All students who register for this course should expect rigorous in-class study along with outside assignments and readings. Students who enroll in this course are expected to take the AP exam in May.

## **SOCIAL STUDIES ELECTIVES**

### **US CIVIL WAR \*(Grades 9-12)**

This course focuses on the causes, events, leaders, results, and impact of the American Civil War. (1861-1865)

### **ADVANCED PLACEMENT EUROPEAN HISTORY (Grades 10-12)**

Advanced Placement European History will encompass the history of western civilization from the close of the Middle Ages to contemporary history. All students who register for this course should expect rigorous in-class study along with outside assignments and readings. Students who enroll in this course are expected to take the AP exam in May.

### **ADVANCED PLACEMENT PSYCHOLOGY (Grades 11-12)**

Advanced Placement Psychology is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the fundamentals of psychology. All students who register for this course should expect rigorous in-class study along with outside assignments and readings. Students who enroll in this course are expected to take the AP exam in May.

### **INTRO TO LAW: A Course in Practical Law (Grades 10-12)**

This course is designed to help students develop an understanding of the law-making process, criminal and civil justice systems, protections under the law, and the consequences of breaking the law.

### **INTRO TO PSYCHOLOGY (Grades 11-12) *EDGE Credit***

This course is a study of the individual and his relation to society. It gives a better understanding of "self" and the behavioral aspects of man.

### **SOCIOLOGY (Grades 11-12)**

This course deals with the study of human relationships. Social problems of contemporary society will be examined. This course will be offered on odd numbered years (Example 2013-2014 school year).

### **ECONOMICS \*(Grades 10-12) *EDGE Credit***

This course will introduce students to the language and theories of economics.

### **GEOGRAPHY \*(Grades 9-12)**

This course concentrates on the physical features of the world.

## **ADDITIONAL ELECTIVES**

(\*Denotes semester course)

### **COMMUNITY EXPERIENTIAL LEARNING\* (Grades 11-12)**

"Learning by doing" is the main focus. The student will engage in hands-on experience in the chosen field of study or work. Grades are based on attendance, performance, and logging/reflection. Students applying for this class should have a C average in each class, not missed more than seven days the previous semester and have had no serious discipline referrals. The student must have a good attitude, be dependable, courteous, trustworthy and cooperative, be able to work independently, and have good communication skills. The student must complete an application, be interviewed, and have three recommendations. The enrollment is based upon approval by the building coordinator. The student must be responsible for his/her own transportation to and from the assigned site. Each student selected will receive a grade and 1/2 credit for each class period.

### **DRIVER EDUCATION\* (Grades 10-12)**

This course consists of three phases, classroom instruction, driving simulators, and driving instruction. Students must be in the 10th grade to be enrolled in the class. Students must maintain an average of 85% for in-car instruction and an average of 77% for the classroom to be eligible to receive the West Virginia State Department of Education certificate.

### **ENERGY & POWER FOUNDATIONS, (Engineering I) (Grades 9-12)**

Energy and Power Foundations is a foundational course on the origins and production of renewable and nonrenewable energy sources with an overview of energy and power career fields and cutting edge job opportunities. The course provides students with opportunities to directly test and evaluate theories and practices of energy systems. This course is course one in the Energy, Power, and Engineering Systems (EPES) concentration. This course will meet the requirements for a science credit necessary for graduation.

### **ENERGY TRANSMISSION & DISTRIBUTION (Engineering II) (Grades 10-12)**

This course focuses on energy transmission and consumer usage. Through projects, students will be introduced to AC and DC power, transformers, the electrical grid and Smart Grid, and consumer load on the electrical system. To complete projects student will use Ohm's law, Joule's law of heating, root mean square, Pythagorean Theorem and trigonometric principals to understand how energy travels along power lines and is converted from direct current to alternation current. Students will gain an understanding of how power companies move power—stepping it up and down to meet the needs of the end-user. This course is course two in the Energy, Power, and Engineering Systems (EPES) concentration. This course will meet the requirements for a science credit necessary for graduation. Pre-requisites: Energy & Power Foundations (Engineering I).

### **ELECTRONIC & CONTROL SYSTEMS (Engineering III) (Grades 11-12)**

In this course students will build on the knowledge and experience gained in the first two foundational courses. Students will apply their knowledge to more advanced systems and learn how to program and use NI LabVIEW software and the myDAQ data acquisition device to work as engineers in making and analyzing scientific measurements. Students will study advanced topics in energy and power such as smart-home automation, plant-level process control, natural gas pipeline monitoring, energy storage and wind power. This course is course three in the Energy, Power, and Engineering Systems (EPES) concentration. Pending approval by the WV Board of Education this course will meet the requirements for a science credit necessary for graduation. Pre-requisites: Energy & Power Foundations (Engineering I) and Energy Transmission & Distribution (Engineering II).

### **EXPERIENTIAL LEARNING - IN SCHOOL\* (Grades 9 -12)**

This course is for students interested in working for any teacher, in the main office, attendance office, and/or guidance office, or working as a library assistant. A grade will be given and 1/2 credit will be issued for each period that a student works. Any student may qualify as long as he/she has not had any discipline referrals the semester before applying. The student must have a "C" average in each class and missed no more than seven days. The student must have a good attitude, be dependable, courteous, trustworthy, cooperative, and be able to work independently, and have good communication skills. The student must complete an application and have recommendations from one teacher or staff member

### **TRANSITIONAL DEVELOPMENT WORK PROGRAM (Grade 12)**

This program is designed for the student who has an Individualized Education Plan who has obtained the necessary credits toward graduation, who has a job in the community, and who can be released early to get elective credit for working.

### **CAREER PREP (Grades 9 - 12)**

Career Prep incorporates real world applications to prepare students with disabilities to make informed choices and set goals for lifelong learning and careers after graduation. Making career decisions, goal setting, gaining work readiness skills, and basic skill building are course components that prepare students to pursue and achieve long term goals. Selected students will also participate in the supervised Work Exploration in local businesses. The student must have an Individualized Education Plan (IEP).

### **CAREER EXPLORATION (Grades 11 - 12)**

Career Exploration is an elective available to students who have an Individualized Education Plan (IEP) in the 11th and 12th grade. Students may work in the school cafeteria, school library, main office, work for department chairs. Students may also hold a part-time job in the community to receive elective credit. The students are evaluated on their work performance (soft skills such as dependability, arriving on time, showing pride in work, cooperating with others, following directions, etc.). Career Exploration helps prepare students for the transition from school to work.

### **21st CENTURY ADVISOR/ADVISEE (Grades 9 -12)**

Students will learn how to make decisions, set goals, and take necessary action to achieve goals. Students will acquire the knowledge, attitudes and interpersonal skills to help them understand and respect self and others, as well as skills that contribute to effective learning in school and across their lives.

In addition, students will assess personal problem-solving and conflict resolution skills for coping with challenges. They will develop skills to improve relationships with parents, family members, and peers, and learn to implement skills necessary to exhibit and maintain a positive self-concept and effect self-control. The student must have an Individualized Education Plan (IEP).

### **21ST CENTURY LEARNING\* (Grades 9 -12)**

Students will utilize technology tools to solve problems and improve academic results. Students will learn advanced technology application skills including the use of the word processing, database, spreadsheets, and presentation software. The student must have an Individualized Education Plan (IEP).

## **JAMES RUMSEY COURSES**

Students may earn 1-8 credits per year at the James Rumsey Technical Institute (JRTI). All programs are designed for three (3) credits per year. Students may also enroll for one (1) credit each in English, mathematics, social studies and science classes. Returning (second year) students will have priority enrollment followed by first year juniors then first year seniors. Students desiring to enroll for more than three (3) credits should check with their home school counselor regarding EDGE Credit, transportation schedules, and available space before enrolling.

All courses at JRTI incorporate the Simulated Workplace model. Additional information on Simulated Workplace can be found on page 32 of this booklet or in the JRTI Programs of Study.

### **AUTOMOTIVE TECHNOLOGY**

Automotive technology offers training in hands-on skills combined with the technical knowledge to prepare students for entry-level employment as automotive technicians and/or for entry to numerous technical colleges. This course is 50% classroom studies and 50% lab activities. The automotive technician program is designed to provide the student with a thorough understanding of the materials, methods and techniques used to repair a malfunctioning vehicle with extensive studies of electricity/electronics and computer systems found on current year cars.

### **EARLY CHILDHOOD EDUCATION**

The Early Childhood Education concentration focuses on the knowledge, skills, attitudes and practices of childhood development required for careers in the field of Early Childhood Education. Emphasis is placed on the integration of all aspects of development into best practices for nurturing children. This concentration prepares students for the Apprenticeship for Child Development Specialist (ACDS), Childhood Development Associate (CDA) and/or AAFCS Pre-PAC Certification in Early Childhood Education.

### **CARPENTRY**

The Carpentry Concentration focuses on careers that will build a knowledge base and technical skills in all aspects of the carpentry industry. Learners will be exposed to a broad range of construction careers and foundation knowledge including safety; plan reading; use of tools and equipment; basic rigging; and how to employ positive work ethics in their careers. Students will have the opportunity to earn NCCER certification for each skill set mastered.

### **CISCO**

CISCO networking academies consist of four semesters. The program is designed to teach students the skills to design, build, troubleshoot, and maintain small to medium-size networks. Areas of study include, equipment identification, router configuration, switches, local area network (LAN), wide area network (WAN), IP addresses, internet, and various types of software.

### **CERTIFIED INTERNET WEBMASTER (CIW)**

The Certified internet Webmaster (CIW) concentration focuses on careers such as a web designer, web administrator, web manager, and enterprise specialist. The concentration introduces GUI web development applications, such as Microsoft Expressions, CS3 Dreamweaver, Fireworks and Flash applications.

### **DIESEL EQUIPMENT TECHNOLOGY**

The Diesel Equipment Technology concentration focuses on careers that will build a knowledge base and technical skills in all aspects of the Diesel Equipment Technology industry. Students will have the opportunity to acquire hours towards industry ASE/NATEF certification and be exposed to skills to develop positive work ethics.

### **ELECTRICAL TECHNICIAN**

The Electrical Technician concentration focuses on careers that will build a knowledge base and technical skills in all aspects of the Electrical Trades industry. Students will have the opportunity to earn NCCER certification for each skill set mastered and be exposed to skills to develop positive work ethics.

### **EMERGENCY AND FIREFIGHTING MANAGEMENT SERVICES**

The Emergency and Firefighting Management Services concentration focuses on the knowledge and skills to be first responders to fires and other emergencies and to manage services within the field.

## **GRAPHIC COMMUNICATIONS**

This course provides an overview of the printing industry, its basic operations, safety practices, image assembly, plate making, press operations, bindery, and job application skills. It requires the production of printed materials from basic design through finishing operations.

## **GRAPHIC DESIGN**

Students will learn creative and technical aspects of commercial arts/graphic design including, the basics of national retail trade, industrial and professional advertising; layout, screen printing, computer graphics, and safety.

## **ADVANCED INFORMATION TECHNOLOGY/INFORMATICS**

This course leverages technology, data, and communication, instilling a new generation with the knowledge, imagination and flexibility to tackle complex issues in the digital world. This is an Advanced Careers Course.

## **LAW AND PUBLIC SAFETY**

The Law and Public Safety concentration focuses on methods used by public safety leaders to protect a democratic society. The history and organization of the criminal justice system and issues relating to the administration and practice of public safety in a culturally diverse society are explored.

## **MASONRY**

The masonry concentration focuses on careers that will build a knowledge base and technical skills in all aspects of the masonry industry. Students will have the opportunity to earn NCCER certification for each skill set mastered and be exposed to skills to develop positive work ethics.

## **PROSTART**

The ProStart Restaurant Management concentration focuses on the skills needed for a successful employment in a restaurant environment. ProStart is an industry-driven curriculum developed by the National Restaurant Association Educational Foundation with input from thousands of restaurant professionals. ProStart curriculum integrates performance-based learning with academics, entrepreneurship, and technology skills to prepare students for successful employment in the 21st Century.

## **ROBOTICS**

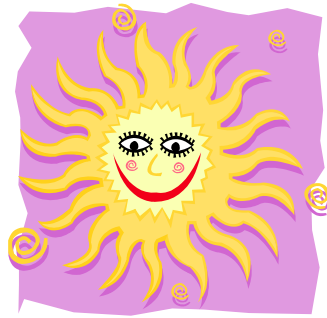
The Robotics concentration is designed to provide extensive material to engage and catalyze STEM (Science, Technology, Engineering and Mathematics) learning for the student using the VEX robotics system in the classroom. The concentration focuses on careers that will build a knowledge base and technical skills in all aspects of the engineering and robotics industry. Students will have the opportunity to acquire hours towards certification and be exposed to skills to develop positive work ethics.

## **THERAPEUTIC SERVICES (HEALTH)**

The Therapeutic Services Concentration allows the student to explore careers focused primarily on changing the health status of the patient over time. Health professionals in this concentration work directly with patients; they may provide care, treatment, counseling and health education information.

## **WELDING TECHNOLOGY**

The Welding concentration focuses on careers that will build a knowledge base and technical skills in all aspects of the welding industry. Students will have the opportunity to earn both NCCER certification and the WV Welding Certification for each skill set mastered and be exposed to skills to develop positive work ethics.



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