JEFFERSON COUNTY SCHOOLS

PROGRAMS OF STUDY 2020 - 2021

GRADUATION REQUIREMENTS FOR STUDENTS THAT WILL GRADUATE IN 2021, 2022, 2023, OR 2024
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


Program of Studies: A coherent sequence of academic and technical courses that prepare students for graduation, college, and career readiness. These courses are related to a student’s chosen Career Cluster and postsecondary goal.

Career & Technical Education (CTE): Commonly known as Career Technical Education or CTE are classes that are designed to prepare students for careers. Many programs focus on areas typically associated with associate or bachelor’s degrees, such as engineering or business.

CTE Completer: A student that successfully completes four required courses in a specific, student selected CTE program of study, such as Accounting, Careers in Education, AFJROTC, or Natural Resource Management is recognized as a CTE Completer. A student that is a CTE completer will be required to complete additional activities such as compiling a portfolio of their work, completing additional state required assessments, and participation in the Simulated Workplace program.

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.
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, Students are provided information regarding a wide variety of career and educational opportunities. Through LINKS students select a Career Cluster as part of their Personalized Education Plan (PEP) and plan 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**

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

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 for the classes of 2022 and beyond

**Graduation Requirements: 22 credits required: 18 prescribed and 4 personalized**

## Graduation Requirements (18 prescribed)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
</table>
| **English Language Arts**| 4       | **4 credits**  
English 9  
English 10  
English 11  
English 12 or English 12 CR or Transition English language Arts for Seniors  
An Advanced Placement (AP®) English or Dual Credit course may be substituted for any of the above courses. |
| **Mathematics**          | 4       | **4 credits**  
Math I  
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  
An AP® or Dual Credit Mathematics course may be substituted for an equivalent course or any fourth course option. |
| **Science**              | 3       | **3 credits**  
Earth and Space Science (Grade 9)  
Biology (Grade 10)  
One additional science course or AP® science course |
| **Social Studies**       | 4       | **4 credits**  
1 credit from world Studies or an AP® Social Studies course (see Chart V)  
1 credit from United States Studies or United States Studies-Comprehensive or AP® U.S. History  
1 credit from an additional Social Studies course or an AP® Social Studies course  
1 credit from Civics or AP® United States Government and Politics. |
| **Physical Education**   | 1       | **1 credit**  
Physical Education 9-12 or Integrated Physical Education. |
| **Health**               | 1       | **1 credit**  
Health 9-12 |
| **The Arts*              | 1       | **1 credit**  
* Students who choose to substitute course 1431 - Digital Imaging (taught at WHS) for the required art credit must enroll in an additional CTE course applicable to their selected CTE Program of Study.
<table>
<thead>
<tr>
<th>Graduation requirements (4 personalized)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personalized Education Plan</strong></td>
</tr>
<tr>
<td>Each student’s PEP will identify a career cluster and a program of study or course work for the 4 credits that will lead directly to placement in, credit-bearing academic college courses, an industry-recognized certificate or license, or workforce training programs. Best practices encourage students to experience the following: an AP® and/or Advanced Career (AC) course with corresponding examination, an additional science, a computer science, an online/digital learning experience, 2 credits in one world language (Colleges may require two or more years of foreign languages. Students should consult with their postsecondary educational institution), and/or 4 credits culminating in acquisition of industry-recognized CTE credential focused on career aspirations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personalized Learning</th>
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<tbody>
<tr>
<td>The West Virginia Personalized Learning Framework (PL) is a statewide initiative that suggests flexible use of resources to provide relevant academic, social/emotional, and/or behavioral support to enhance learning for all students. PL is characterized by a seamless system of high-quality instructional practices allowing all students to attain significant progress, whether they are considered at-risk, exceeding grade-level expectations or at any point along the continuum.</td>
</tr>
</tbody>
</table>
## Graduation Requirements for the class of 2021

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

### Graduation Requirements (18 prescribed)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
<th>Requirements</th>
</tr>
</thead>
</table>
| **English Language Arts** | 4 credits | 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. |
| **Mathematics**        | 4 credits | Math I and/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 38).  
An AP® Mathematics course may be substituted for an equivalent course or any fourth course option. |
| **Science**            | 3 credits | 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 2019)  
Biology (Grade 10)  
One additional lab science course or AP® science course |
| **Social Studies**     | 4 credits | 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. |
| **Physical Education** | 1 credit |                                                                                                        |
| **Health**             | 1 credit |                                                                                                        |
| **The Arts**           | 1 credit |                                                                                                        |

*Students who choose to substitute course 1431 - Digital Imaging (taught at WHS) for the required art credit must enroll in an additional CTE course applicable to their selected CTE Program of Study.*
Graduation Requirements (6 personalized)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personalized Education Plan (PEP)</td>
<td>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.</td>
</tr>
<tr>
<td>Electives</td>
<td>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.</td>
</tr>
<tr>
<td>Career Development</td>
<td>All students in grades 9-12 shall be provided structured, on-going experiences for career exploration, decision making and career preparation.</td>
</tr>
<tr>
<td>Experiential Learning</td>
<td>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.</td>
</tr>
<tr>
<td>Technology</td>
<td>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.</td>
</tr>
<tr>
<td>Student Advocate/Advisor/Mentor “LINKS”</td>
<td>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.</td>
</tr>
</tbody>
</table>

**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 12th 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 21st century.

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.

Advanced Placement (AP) and Honors Courses
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 which are listed below. There is an application process for entrance into the honors program. AP, Honors, and Dual Enrollment courses are weighted. Students must meet with their school counselor BEFORE registering for dual enrollment courses to ensure all graduation requirements are met. All students in AP classes are strongly encouraged to take the AP exam. Some honors/AP courses may require summer assignments.

Jefferson County Schools Honors course list

<table>
<thead>
<tr>
<th>LANGUAGE ARTS</th>
<th>SCIENCE</th>
<th>SOCIAL STUDIES</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 9 Honors</td>
<td>Biology Honors</td>
<td>US Studies Honors</td>
<td>Math I Honors</td>
</tr>
<tr>
<td>English 10 Honors</td>
<td>Earth &amp; Space Science Honors</td>
<td>Contemporary Studies Honors</td>
<td>Math II Honors</td>
</tr>
<tr>
<td>English 11 Honors</td>
<td></td>
<td>World History Honors</td>
<td>Math III STEM</td>
</tr>
</tbody>
</table>

College Classes
It is the intent of Jefferson County Schools to make available college courses for all students. Course offerings, times, locations, fees and admittance 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.

College Credit
Students must meet with their school counselor prior to registering for ANY college courses. 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.

Dual credit coursework criteria: In the case that a dual credit course is used to meet a graduation requirement, the courses must reflect the college-approved syllabi, texts, assignments and assessments as well as having been reviewed and approved by the WVDE and WVBE. The high school and the higher education intuitions will determine which courses are acceptable for dual enrollment. In addition, certain courses may be taken and awarded college credit but may not fall into the category of dual enrollment if their content standards and objectives do not align with the WVDE content standards. Failure of a college course could affect graduation requirements. For more information see your counselor or speak to a college representative.

High School Senior Honors College Program
The High School Senior Honors Program is designed to allow juniors and 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. 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)

**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 counseling department. Any CTE completer admitted into Blue Ridge Community Technical College (BRCTC) will be awarded credit for their coursework. Individual coursework will be evaluated through the college’s Prior Learning Process. Information is also available at the following website: [www.careertech.k12.wv.us/edge/](http://www.careertech.k12.wv.us/edge/)

**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)

**JCS Integrated PE Policy**

Integrated PE qualifying for high school credit (Credit Earning Path)

Integrated PE as defined in the WVDE Policy 2510 is a blended learning approach that combines a free abbreviated online/virtual PE course with a physically active credit bearing elective course. One credit will be earned by fulfilling the requirements of a qualifying physically active credit bearing class AND one credit will be earned for the online/virtual PE course taken at the same time (fulfilling the high school PE credit requirement for graduation). The online/virtual course must be completed within one semester.

1. **Online/Virtual PE Course** – The online/virtual course will be provided by utilizing the WVDE Integrated PE curriculum. All coursework will be graded by a JCS certified PE teacher. A passing grade in the online PE course is required while the student takes a qualifying active credit bearing class to earn the Integrated PE credit.

2. **Qualifying Physically Active Credit Bearing Classes Include:**

   - Weight Lifting, Dance, Show Choir, Marching Band I, II III, IV, Flags and Rifle, Team Sports I and II, Individual Dual I and II.

**Extracurricular/Interscholastic PE**

A 9th - 12th grade student who successfully participates in a qualifying extra-curricular high school based sport for two complete seasons will receive one high school PE credit towards graduation. This Pass/Fail grade is a non-GPA bearing credit.

1. Record of good standing and faithful attendance must be kept by the head coach for each season and submitted on the Extracurricular/Interscholastic PE form.
2. The student must complete **two** seasons of a qualifying sport in order to receive one PE credit. For example, one full soccer season plus one full basketball season equals one PE credit or two full soccer seasons equal one PE credit.
3. The student must complete the Extracurricular/Interscholastic PE form with appropriate signatures and turn it in to the school counselor for credit approval once two seasons are successfully complete. The student’s transcript will be updated at the end of the final athletic season.

**JCS High School Based Extra-Curricular Physical Activities Qualifying for PE credit include:**

- Cheerleading, Soccer, Softball, Baseball, Football, Wrestling, Track, Swim, Cross Country, Basketball, Volleyball, Tennis, Golf, Marching Band and Flags & Rifles.

**Career and Technical Education - Simulated Workplace**

The Simulated Workplace program transforms the culture of Career and Technical Education by creating business and industry learning environments within the classroom. Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas. These twelve areas can be found on page 33 of this booklet. Included in these twelve areas is the requirement that each student in a Simulated Workplace class must adhere to the random drug testing procedures while enrolled in the class. Jefferson County Schools and the West Virginia Department of Education is committed to cooperating in this state wide effort with parents/guardians to help students avoid illegal drug use. We believe that accountability is a powerful tool to help some students avoid using drugs and that early detection and intervention can save lives. Additional information is available at the following website: [https://wvde.us/simulated-workplace/](https://wvde.us/simulated-workplace/)
# Agriculture, Food & Natural Resources Career Cluster

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Program of Study</th>
<th>Washington and/or Jefferson High School**</th>
<th>James Rumsey Technical Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power, Structure, &amp; Technical Systems</td>
<td>Power, Structural &amp; Technical Systems (AG 0110)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course #1 - 0101 Introduction to Agriculture, Food and Natural Resources (WHS) or 0161 CASE Introduction to Agriculture, Food and Natural Resources (JHS)</td>
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<td></td>
<td>Course #2 - 0112 Fundamentals of Ag. Mechanics</td>
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<td>Course #3 - 0134 Supervised Ag. Experience, SAE (2 years)</td>
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<td>Course #4 - 0113 Ag. Structures or 0114 Ag. Equipment &amp; Repair</td>
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<tr>
<td>Plant Systems</td>
<td>Plant Systems (AG 0210) at WHS</td>
<td>X</td>
<td></td>
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<tr>
<td></td>
<td>Course #1 - 0101 Introduction to Agriculture, Food and Natural Resources</td>
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<td>Course #2 - 0212 Horticulture</td>
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<td></td>
<td>Course #3 - 0134 Supervised Ag. Experience, SAE (2 years)</td>
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<td>Course #4 - 0214 Greenhouse Production &amp; Management</td>
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<tr>
<td>Plant Systems at JHS</td>
<td>Plant Systems (AG 0215) at JHS</td>
<td>X</td>
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<tr>
<td></td>
<td>Course #1 - 0161 CASE Intro. to Ag., Food and Natural Resources</td>
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<td>Course #2 - 0166 CASE Plant Science (3rd Science)</td>
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<td></td>
<td>Course #3 - 0134 Supervised Ag. Experience, SAE (2 years)</td>
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<td></td>
<td>Course #4 - 0165 CASE Food Science &amp; Safety (3rd Science)</td>
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<tr>
<td>Animal Systems</td>
<td>Animal Systems (AG 0220)</td>
<td>X</td>
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<tr>
<td></td>
<td>Course #1 - 0101 Introduction to Agriculture, Food and Natural Resources</td>
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<td></td>
<td>Course #2 - 0149 Companion Animal Care or 2007 Equine Science</td>
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<td>Course #3 - 0134 Supervised Ag. Experience, SAE (2 Years)</td>
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<td></td>
<td>Course #2 - 0140 Animal Production &amp; Management</td>
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<tr>
<td>Natural Resources Systems</td>
<td>Natural Resource Management (AG 0170)</td>
<td>X</td>
<td></td>
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<tr>
<td></td>
<td>Course #1 - 0101 Introduction to Agriculture, Food and Natural Resources (WHS) or 0161 CASE Intro. to Ag., Food and Natural Resources (JHS)</td>
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<tr>
<td></td>
<td>Course #2 - 0190 Fish &amp; Wildlife Management</td>
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<td></td>
<td>Course #3 - 0134 Supervised Ag. Experience, SAE (2 years)</td>
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<tr>
<td></td>
<td>Course #4 - 0200 Natural Resources Management (3rd Science)</td>
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</tbody>
</table>

Courses marked with "(3rd Science)" are awarded embedded elective science credit. The course would fulfill the 3rd science credit required for high school graduation. See page 6 for additional graduation requirement information.

*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

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Program of Study</th>
<th>Washington and/or Jefferson High School*</th>
<th>James Rumsey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visual Arts</strong></td>
<td><strong>Multimedia Publishing (AV 1684)</strong></td>
<td>JR</td>
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<tr>
<td></td>
<td>Introduction to Visual Communication</td>
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<td></td>
<td>Digital Photography</td>
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<td>Videography</td>
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<td>Cross-Media Publishing</td>
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*See your counselor for more information

## Architecture & Construction Career Cluster

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*See your counselor for more information
### Human Services Career Cluster

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<td>Course #2–1431 Digital Imaging/Multimedia I</td>
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<td>Course #3–1457 Coding, App, &amp; Game Design II</td>
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<td>Course #4–1432 Digital Imaging/Multimedia II</td>
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<td>Information Support &amp; Services</td>
<td>CISCO Networking Academies (IT 1640)</td>
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<td>Course #4 –1455 Web Page Publishing</td>
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### Law, Public Safety, Corrections & Security Career Cluster

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<td>Emergency Services I</td>
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<td>Law Enforcement Services</td>
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<td>Seminar in Law Enforcement</td>
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*See your counselor for more information*
### Manufacturing Career Cluster

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<td>Production</td>
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### Marketing Career Cluster

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- **Course #1**: 0422 Marketing Principles
- **Course #2**: 0425 Marketing Applications

*and select two of the following for course #3 and course #4: 0434 Sports, Entertainment, & Recreation Marketing, or 1401 Accounting Principles I, or 1431 Digital Imaging/Multimedia or 1455 Web Page Publishing*

### Transportation, Distribution, & Logistics Career Cluster

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<tr>
<td>Diesel Technology (TD 1740)</td>
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- **Automotive Technology (TD 1620)**
  - Automotive Technology MLR-1
  - Automotive Technology MLR-2
  - Automotive Technology MLR-3
  - Automotive Technology MLR-4

- **Diesel Technology (TD 1740)**
  - Fundamentals of Diesel Equipment Tech.
  - Electronic Engine Components
  - Diesel Support Systems
  - Diesel Engine Controls

*See your counselor for more information*
SUMMARY OF ELECTIVES
Agricultural Experience Program (SAE)
Ag. Equipment & Repair Ec
Ag. Structures Ec
Ag. Research & Development CASE Ec
Animal Production & Management Ec
Companion Animal Care Ec

Equine Science Ec
Fish & Wildlife Management Ec
Food Science & Safety CASE Ec
Fundamentals of Ag. Mechanics Ec
Greenhouse Production & Management Ec
Horticulture Ec

Intro. to Ag. Food, & Nat. Resource CASE Ec
Intro. to Ag. Food, & Natural Resources Ec
Natural Resources Management Ec
Plant Science CASE Ec

Agricultural Science

Air Force Junior ROTC

AFJROTC 100—Citizenship, Character, & Traditions Ec
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*

AFJROTC Summer Leadership School Cadre Course*

Acting I, II, III, IV
AP Studio Art
Art History, Appreciation, & Aesthetics
Band I—IV
Chamber Choir
Chorus I—IV
Crafts Workshop*
Dance I—IV
Dance Ensemble

Drawing*
Flags/Rifle Corps*
General Art I—IV
Guitar I
Guitar II
Graphic Design
Jazz Ensemble
Jazz Improvisation
Music History

(AP) Music Theory
Painting*
Percussion Ensemble
Piano I
Print Making*
Show Choir
Stagecraft
TV/Videotape
Theatre I—IV

Business/Marketing/Information Technology

A+ Essentials Ec
A+ Practical Applications Ec
Accounting Principles I Ec
Accounting Principles II Ec
Business Computer Applications I Ec
Business Computer Applications II Ec
Business & Marketing Essentials Ec
Coding, App, and Game Design I
Coding, App, and Game Design II

Digital Imaging Ec
Fundamentals of Computer Systems Ec
Marketing Principles Ec
Marketing Applications Ec
Networking Essentials Ec
Personal Finance Ec
Sports, Entertainment, Rec. Marketing
Web Page Publishing Ec

FAMILY & CONSUMER SCIENCES

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

ProStart Cooperative Education

Family & Consumer Sciences
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          Spanish III
French II         Spanish IV
French III        AP Spanish
French IV
Spanish I
Spanish II

MATHEMATICS

Math I
Math I Honors
Math I Lab
Math II
Math II Honors
Math III STEM Honors
Math III LA
Math III TR
Math IV
Math IV Honors
Math IV TR
AP Calculus AB
AP Calculus BC
AP Computer Science A
Transitions Mathematics for Seniors
College Algebra *
College Trigonometry *

PHYSICAL EDUCATION

Advanced Weight Training & Physical Fitness
Athletic Training *
Team Sports I *
Team Sports II *

READING AND ENGLISH LANGUAGE ARTS

AP English Language & Composition
AP English Literature & Composition
Creative Writing *
Newspaper
Shakespeare
Speech I *
Yearbook

SCIENCE

AP Biology
AP Chemistry
AP Physics
AP Environmental Science
Biology
Chemistry
Earth and Space Science
Environmental 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 *
Cougar Compass
First Aid & Safety *
Energy & Power Foundations (Engineering I)
Energy Transmission & Distribution (Eng. II)
Electron & Control Systems (Eng. III)
Energy, Power, & Engineered Systems (Eng. IV)
Foundations of Health Sciences Ec
Leadership
Service Experiential / In School *
WVU Engineering 101
WVU Engineering 140
AP Computer Science Principles
AP Seminar
AP Research
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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, WHS, or James Rumsey Technical Institute)

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 forms and styles 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 it 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.

MUSIC THEORY (ADVANCED PLACEMENT)
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-reading, 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. (This course may also be offered as an advanced placement course).

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 a cappella 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)
Prerequisites for Acting I, II, III, and IV classes are Theatre I and/or permission/audition from instructor. This class encompasses improv, character study, acting methods, and other performance related topics. Performances for school and community may be expected. Class rehearsal attendance is strongly enforced. After school and weekend hours may be required. Some actors may be selected to participate in Regional/State competition.

THEATRE I (Grades 9-12)
Theatre I will study theatre history and relate historical pieces to modern ideas and themes, learn stage terminology, basic theater concepts, voice and diction exercises, stage movement, acting techniques, and playwriting skills. After school and weekend hours may be required.

THEATRE II (Grades 10-12)
Prerequisite for Theater II is Theater I and/or instructor permission. Theater II is a more in-depth study of theatre and with a focus on technical theatre. Students may be required to participate in the Regional Competition 2nd semester. Weekend and after school rehearsal times may be required.

THEATRE III (Grades 11-12)
The Theatre III student will continue study began in Theatre II. Theatre III students can compete at the Regional/State Competition with an actualized technical project entry from the provided list of projects. Students may be required to work on an actualized play for an audience during school hours and/or after-school hours. After school rehearsal and weekend rehearsals may be required.

THEATRE IV (Grade 12)
Theatre IV students will further their knowledge from Theatre III and perform 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 weekend rehearsals may be mandatory.

STAGE CRAFT (Grades 9-12)
A basic knowledge of theater is required for this class; therefore, Theatre I and teacher permission are prerequisites for Stage Craft. The purpose of this class is to maintain the stage.

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.
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/I 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 College and Career Readiness 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 three levels: Honors, College Prep, and On-level.

HIGH SCHOOL MATH III STEM (Honors) or MATH III LA (College Prep) or MATH III TR (On-level) 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). Additional topics in Math III STEM that are not covered in other Math III options include analyzing decisions and strategies using probability concepts, extending polynomials, identities to include complex numbers, the fundamental Theorem of Algebra, Pascal’s Triangle, rational expressions, derivation of the formulas for area of triangles, Law of Sines, Law of Cosines, and application of these laws to solve practical problems. The Math III STEM level prepares students for AP Calculus AB.

NOTE: Math III TR and Math IV TR are equivalent to ONE full high school math credit.

HIGH SCHOOL MATH IV 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 understanding 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. The Math IV Honors level 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.

*High school juniors who do not score at the level of proficiency designated by the WVDE may be required to enroll in a remediation program.

ADVANCED PLACEMENT COMPUTER SCIENCE A This class is equivalent to a first semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, data structures, approaches to processing data (algorithms), analysis of potential solutions, and ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using java language. The AP Computer Science A course curriculum is compatible with many CS1 courses at the college level. Pre-Requisite for this course is Math III LA or higher.

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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. Pre-requisite for this course is Math III LA or higher.

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. Pre-requisite for this course is Math III STEM, Math IV, and/or WVU College Algebra or College Trigonometry.

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. Pre-requisite for this course is Math III STEM, Math IV, WVU College Algebra or College Trigonometry, and/or Calculus AB

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.

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<tr>
<th>8th Grade</th>
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<tr>
<td>Math 8</td>
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<td>Math II</td>
<td>Math III LA or Math III TR</td>
<td>Math IV Math IV TR College Algebra, College Trigonometry, or Transition Math for Seniors AP Computer Science A</td>
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<tr>
<td>Math 8 Honors</td>
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<td>Math II or Math II Honors</td>
<td>Math III STEM Math III LA or Math III TR</td>
<td>Math IV Math IV TR College Algebra, College Trigonometry, Transition Math for Seniors AP Statistics, or AP Calculus AP Computer Science A</td>
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<td><strong>Math 8/1</strong></td>
<td>Math II Honors or Math II</td>
<td>Math III STEM or Math LA</td>
<td>Math IV AP Statistics or AP Calculus AP Comp. Science A</td>
<td>Math IV College Algebra, College Trigonometry, AP Statistics or AP Calculus AP Computer Science A</td>
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**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.
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.

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.

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.

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. 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. 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.
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.

ENGLISH 12
In this course skills in grammar, spelling, and vocabulary are reinforced. Writing assignments include a business letter and a job application.

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.

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.

SHAKESPEARE (Grades 10-12)
This course is a year long study of the works, life, and times of William Shakespeare with the focus of the course being on Shakespeare and performance. Students will read, view, and participate in several of Shakespeare’s plays and read a number of his sonnets. Poetry analysis will also be an integral part of the course. Students may attend live productions and participate in Shakespearean Workshops. This class is taught only at JHS.

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 have 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*.
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 with the emphasis in skills such as: scientific writing (lab reports and essays) and several labs using probe-ware technology and data analysis. 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.

BIOLOGY (Grade 10)
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 Perquisite: Math I. Students will be expected to apply skills requisite for Math I Honors.

HONORS BIOLOGY (Grade 10)
This course is designed for students who desire a broader, in-depth study of the content found in many biological fields of endeavor. The 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. Students will be expected to apply skills requisite for Math II Honors.

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. Suggested pre-requisites: Honors Biology, Chemistry (may be taking Chemistry at the same time) and Math II Honors. Students will be expected to apply skills requisite for Math III STEM.

ENVIRONMENTAL SCIENCE (Grades 11-12)
This course builds on foundational knowledge of the chemical, physical, biological, geological processes and focus on the natural world. Through an inquiry-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. Recommended Prerequisites: Earth & Space Science and Biology. Students will be expected to apply skills requisite for Math II.

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 STEM.

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 pre-requisites: Chemistry and Math II Honors. Students will be expected to apply skills requisite for Math III STEM.

HUMAN ANATOMY & PHYSIOLOGY (Grades 11 - 12) EDGE Credit
This is an advanced elective course designed for students wanting a deep 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 pre-requisites: Biology, Chemistry (may be taking Chemistry at the same time) and Math II.
PHYSICAL SCIENCE – (Grades 11 - 12)
This is an 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, Biology, and Math II.

PHYSICS (Grades 11 - 12)
Physics is an advanced elective course designed for students 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 pre-requisite: Math II Honors. Students will be expected to apply skills requisite for Math III STEM.

ADVANCED PLACEMENT PHYSICS I (Grades 11-12)
Advanced Placement Physics I 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 pre-requisite: Math III STEM. Students will be expected to apply skills requisite for Math IV Honors.

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 pre-requisite: Math II. Students will be expected to apply skills requisite for Math III LA or Math III STEM.

FORENSIC SCIENCE (Grade 12)
Forensics is an advanced elective course designed for students 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 complete readings of primary and secondary content. Research and writing activity assignments 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 reading from primary and secondary sources and doing 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 11th or 12th 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)
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 primary and secondary sources and 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 12th grade.

ADVANCED PLACEMENT US HISTORY (Grades 11-12)
Advance 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. This course will be offered in even numbered years (Example 2018-2019 school year).

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 2019-2020 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.
**CAREER AND TECHNICAL EDUCATION (CTE)**

*Career & Technical Education (CTE):* Commonly known as Career Technical Education or CTE are classes that are designed to prepare students for careers. Many programs focus on areas typically associated with associate or bachelor’s degrees, such as engineering or business.

Agricultural Science ................................................................................................................. 38
Air Force Junior ROTC .................................................................................................................. 40
Business/Marketing/Information Technology ............................................................................... 42
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**CTE Completer:** A student that successfully completes four required courses in a student selected CTE program of study, such as Accounting, Careers in Education, AFJROTC, or Agriculture coursework is recognized as a CTE Completer. The CTE completer programs can be found on pages 12-16 of this booklet. A student that is a CTE completer is required to complete additional activities such as compiling a portfolio of their work, completing additional state required NOCTI assessments, and participation in the Simulated Workplace program.

**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, including random drug testing of all enrolled students.
- 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 6S Continuous Quality Improvement principles
- Participate in Business and Industry yearly onsite evaluations.
- Utilize a portfolio system for students to document learning, credentials earned, projects completed.

**NATIONAL OCCUPATIONAL COMPETENCY TESTING INSTITUTE** (NOCTI) is the largest provider of industry-based credentials and partner industry certifications for career and technical education (CTE) programs across the nation. For additional information please visit nocti@nocti.org
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. All Agriculture courses qualify for EDGE credit through Blue Ridge CTC. For more information on EDGE Credits refer to page 11.

Supervised Ag. Experience Program SAE (2 years) 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)

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)

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 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.

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)

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.)

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, Technology Engineering & Mathematics (STEM) and English language understanding through inquiry-based concepts.

**Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see pages 11 or 37 for more information.
Equine Science EDGE Credit 2007
This specialization course focuses on the basic scientific principles and processes related to equine anatomy and physiology, breeding, nutrition, and management practices in the equine industry. (Prerequisite - Intro to Ag.)

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.)

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 3rd science credit necessary for graduation. (Prerequisite – Intro to Ag, Food, and Nat. Resources)

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.)

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.

Introduction to Agriculture, Food, and Natural Resources (WHS) 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 Ag., Food, and Natural Resources CASE (JHS) 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.

Natural Resources Management 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 will meet the requirements for a science credit necessary for graduation but may not be accepted for college admissions. This course incorporates the Simulated Workplace model**. (Prerequisite – Intro. to Ag, Food, and Nat. Resources).

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 a 3rd science credit. (Prerequisite – Intro to Ag, Food, and Nat. Resources)

**Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see pages 11 or 37 for more information.

Courses that indicate 3rd elective science credit are awarded embedded elective science credit. The course would fulfill the 3rd science credit required for high school graduation. See page 6 for additional graduation requirement information.
Students living in both the Washington High School and Jefferson High Schools districts may take AFJROTC and will attend Jefferson High School all day (Washington High School students who are disenrolled in AFJROTC will no longer attend Jefferson High School and will resume their course schedule at Washington High School). Parking or bus transportation is provided if needed. AFJROTC requires some after school and weekend events. There is an activity fee.

Students must take AFJROTC 100 as the introductory course. AFJROTC 200, 300, and 400 may then be entered in any year.

**AFJROTC-100: CITIZENSHIP, CHARACTER, & TRADITIONS: A JOURNEY INTO AVIATION HISTORY**

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 provide a waiver to the 1 credit PE requirement, which is a requirement to graduate.

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

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 provide a waiver to the 1 credit PE requirement, which is a requirement to graduate.

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

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 100. This course incorporates the Simulated Workplace model**. Successful completion of two AFJROTC courses will provide a waiver to the 1 credit PE requirement, which is a requirement to graduate.

**AFJROTC-400: PRINCIPLES OF MANAGEMENT: EXPLORATION OF SPACE**

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 100. 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 provide a waiver to the 1 credit PE requirement, which is a requirement to graduate.

**Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see pages 11 or 37 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 provide a waiver to the 1 credit PE requirement, which is a requirement to graduate.

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 provide a waiver to the 1 credit PE requirement, which is a requirement to graduate.

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.

**Simulated Workplace Programs introduce students to various business processes using twelve distinct measurement areas, see pages 11 or 37 for more information.
BUSINESS/MARKETING/INFORMATION TECHNOLOGY

A+ ESSENTIALS (GRADES 10-12)  
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)
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)
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)
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
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
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)
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.

CODING, APP, AND GAME DESIGN I (GRADES 9-12)
This course is designed to develop students knowledge and skills in programming and designing game and app ideas, paper prototyping, and other planning techniques. Using various design platforms, programming languages, drawing and animation techniques, students create an interactive demonstration of the games and apps.

CODING, APP, AND GAME DESIGN II (GRADES 10-12)
This course is designed to develop students knowledge and skills in developing apps and games using more advanced coding and graphic design including both 2D and 3D elements. 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**.

DIGITAL IMAGING/MULTIMEDIA I (GRADES 9-12)
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 pages 11 or 37 for more information:**
DIGITAL IMAGING/MULTIMEDIA II (GRADES 10-12) **EDGE Credit**
This course focuses on building on the knowledge and skills for producing images, animation, photography, and video from course I. Students will learn to use Adobe Illustrator, Photoshop, and Flash and will be provided real world learning opportunities and instruction. **This course incorporates the Simulated Workplace model**.

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.

PERSONAL FINANCE (GRADES 9-12) **EDGE Credit**
This course is designed to develop student understanding and skills in such areas such as money management, budgeting, financial goal attainment, credit, insurance, investments and consumer rights and responsibilities.

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 pages 11 or 37 for more information:**

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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 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. This course will be taught at JHS on odd number years, 2021, 2023, etc.

**APPLIED DESIGN – FASHION MERCHANDISING II** (Grades 9-12)
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. This course will be taught at JHS on odd number years, 2021, 2023, etc.

**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 principles 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. This course will be taught at JHS on even number years, 2022, 2024, etc.

**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 FOUNDATIONS** (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 (Grades 10&11) *EDGE Credit*

Pro Start I is a course that introduces the students to careers in food service and teaches basic 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 11&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 Café. This course is offered at Jefferson High School and James Rumsey Technical Institute and incorporates the Simulated Workplace model**.

ProStart II A—yearlong (2 periods—1 credit each period)  
ProStart 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 Ed. III, Elementary Literacy Awareness. This course incorporates the Simulated Workplace model**.

Careers in Ed. 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, including random drug testing of all enrolled students.  
- 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 6S Continuous Quality Improvement principles
**ADDITIONAL ELECTIVES**
(*Denotes semester course)

**ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES (Grades 11-12)**
This course is designed to be equivalent to a first semester introductory college computing course. Students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will develop effective communication and collaboration skills by working individually and collaboratively to solve problems and will discuss and write about the impacts these solutions could have on society.

**ADVANCED PLACEMENT SEMINAR (Grades 11-12)**
This course engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, foundational literary and philosophical text; listening to and viewing speeches, broadcasts, and personal accounts and experiencing artistic works and performances. Students will learn to synthesize information, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations. The course aims to equip the students with the power to analyze and evaluate information and craft and communicate evidence based arguments. Students who enroll in this course are expected to take the AP exam in May.

**ADVANCED PLACEMENT RESEARCH (Grades 11-12)**
This course allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research based investigation to address a research question. In this course students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper and a presentation with an oral defense. Pre-requisite for this course is AP Seminar. Students who enroll in this course are expected to take the AP exam in May.

**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.

**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.
LEADERSHIP (Grades 10-12)
The Leadership class will help students develop leadership styles and communication skills. Activities may include but not be limited to doing research with community agencies and education officials, collaborating with school organizations, participating in community service, and creating presentations to various groups. The student must be a member of a student organization or in a student leadership position.

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.

WVU ENGINEERING 101: Engineering Problem Solving 1 - Engineering problem solving methodologies and analysis. Use of computers in problem solving, technical report writing, team based project work and presentations. Pre-requisites is to have taken or be enrolled in AP Calculus AB.

WVU ENGINEERING 140: Engineering in History - Impact of engineering on society throughout history. Developments in warfare, architecture, agriculture, manufacturing, communication, transportation, and their impacts on society. Pre-requisites is to have taken or be enrolled in AP Calculus AB.

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).
COUGAR COMPASS (grades 9-12)
Jefferson High School is using a product called Suite 360 to support social-emotional learning that address the WV Student Success Standards. To reflect the concept of learning skills that help students navigate towards graduation and life after high school this product is re-branded as Cougar Compass. Cougar Compass instruction is delivered through a digital platform that provides an immersive experience for students that addresses a variety of skills and topics related to academic, career, social and emotional development, and global citizenship. Students will receive weekly Cougar Compass module assignments through their assigned LINKS teacher.

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 non-renewable 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. This course is taught only at JHS.

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. This course is taught only at JHS.

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) or Energy Transmission & Distribution (Engineering II). This course is taught only at JHS.

AC ENERGY, POWER, & ENGINEERED SYSTEMS IV (Grades 11-12)
This advanced course is designed for students to become building technicians, design engineers, recreational engineers, electrical technicians, and CEOs, while learning about real-world energy and power issues. Students will need to have a basic understanding of electricity (both a/c and d/c) and higher level mathematics. This course incorporates knowledge of multiple sources of energy, engineering systems, societal impact and “the business of energy”. Pre-requisites: Energy & Power Foundations (Engineering I) or Energy Transmission & Distribution (Engineering II). This course is taught only at JHS.

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 along 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.
**Shepherd University/Jefferson County Schools Dual Credit courses**

For additional information about dual credit courses please see page 10 under the section on *College Credit* and speak to your school counselor.

**APPALACHIAN STUDIES**
APST 358 – Appalachian Literature

**ART**
ART 103 – Introduction to the Visual Arts
ART 115 – Drawing I
ART 140 – Visual Thinking Skills I
ART 150 – Digital Foundations
ART 230 – Painting I
ART 250 – Sculpture I
ART 260 – Printmaking I
PHOT 281 – Basic Photography
THEA 204 – Introduction to Theater

**BUSINESS**
BADM 150 – Introduction to Business

**COMMUNICATIONS**
COMM 202 – Fundamentals of Speech
COMM 203 – Communications and New Media
COMM 360 – T.V. Production

**COMPUTER SCIENCE**
CIS 102 – Microcomputer Applications
CIS 104 – Introduction to Computer and Information Sciences

**DATA ANALYTICS**
DATA 118 – Data Analytics Introduction

**ECONOMICS**
ECON 123 – Contemporary Economics
ECON 205 – Principles of Macroeconomics
ECON 206 – Principles of Microeconomics

**ENGINEERING**
ENGR 101 – Engineering I
ENGR 102 – Engineering II

**ENGLISH**
ENGL 101 – Writing and Rhetoric I
ENGL 102 – Writing and Rhetoric II

**FOREIGN LANGUAGE**
FREN 101 – Elementary French
FREN 102 – Elementary French II
GERM 101 – Elementary German I
GERM 102 – Elementary German II
SPAN 101 – Elementary Spanish
SPAN 102 – Elementary Spanish II

**GEOGRAPHY**
GEOG 105 – World Culture Geography
GEOG 202 – World Regions
<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIST 100</td>
<td>History of Civilization: Asian Traditions</td>
</tr>
<tr>
<td>HIST 103</td>
<td>History of Civilization: The Modern World</td>
</tr>
<tr>
<td>HIST 124</td>
<td>The Atlantic World, 1450 – 1850</td>
</tr>
<tr>
<td>HIST 128</td>
<td>The Age of Revolution, 1750 - 1950</td>
</tr>
<tr>
<td>HIST 130</td>
<td>World History in the 20th Century</td>
</tr>
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<td>HLTH 100</td>
<td>Exercise Leadership</td>
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<td>MATH 101</td>
<td>Fundamentals of Mathematics</td>
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<td>MATH 105</td>
<td>College Algebra</td>
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<td>MATH 108</td>
<td>Precalculus</td>
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<td>MATH 207</td>
<td>Calculus I</td>
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<td>MATH 208</td>
<td>Calculus II</td>
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<td>MUSC 103</td>
<td>Music Theory</td>
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<td>MUSC 104</td>
<td>Aural Skills I</td>
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<td>MUSC 105</td>
<td>Theory II</td>
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<td>MUSC 106</td>
<td>Aural Skills II</td>
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<td>PSCI 100</td>
<td>Politics and Government</td>
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<td>PSCI 101</td>
<td>American Federal Government</td>
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<td>GLBL 200</td>
<td>Introduction to Global Studies</td>
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<td>PSYC 101</td>
<td>Introduction to Psychology</td>
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<td>RECR 108</td>
<td>Introduction to Sports Studies</td>
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<td>BIOL 103</td>
<td>General Biology</td>
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<tr>
<td>BIOL 104</td>
<td>General Biology</td>
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<tr>
<td>BIOL 211</td>
<td>Fundamentals of Biology I: Molecular and Cellular Function</td>
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<tr>
<td>BIOL 212</td>
<td>Fundamentals of Biology II: Diversity of Life</td>
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<tr>
<td>CHEM 207</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM 207L</td>
<td>General Chemistry I Laboratory</td>
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<tr>
<td>CHEM 209</td>
<td>General Chemistry II</td>
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<tr>
<td>CHEM 209L</td>
<td>General Chemistry II Laboratory</td>
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<tr>
<td>ENV 201</td>
<td>Foundations in Environmental Science I</td>
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<tr>
<td>ENV 201L</td>
<td>Foundations in Environmental Science I Lab</td>
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<tr>
<td>ENV 202</td>
<td>Foundations in Environmental Science II</td>
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<td>ENV 202L</td>
<td>Foundations in Environmental Science II Lab</td>
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<tr>
<td>SIGN 101</td>
<td>Conversational Sign Language</td>
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<td>SOCI 203</td>
<td>General Sociology</td>
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<tr>
<td>UNIV 100</td>
<td>College Prep</td>
</tr>
</tbody>
</table>
Blue Ridge Community & Technical College/Jefferson County Schools Dual Credit courses

For additional information about dual credit courses please see page 10 under the section on College Credit and speak to your school counselor.

ENGLISH
COMM 202 - Fundamentals of Speech
COMM 205 – Professional Communications
ENGL 101 – Written English
ENGL 102 – Writing for Arts & Humanities
ENGL 110 – Technical Writing & Communications
ENGL 111 – Applied Technical Writing
ENGL 204 – Survey of American Literature
ENGL 208 – Survey of World Literature

HISTORY
GEOG 105 – World Culture Geography
HIST 101 – World History to 1500
HIST 102 – World History Since 1500
HIST 201 – United States History to 1877
HIST 202 – United States History from 1877
HIST 210 – West Virginia and Appalachian History

MATHEMATICS
MATH 100 – Math Essentials
MATH 100A – Algebra Essentials
MATH 101 – Introduction to Mathematics
MATH 102 – Technical Mathematics
MATH 105 – Algebra
MATH 106 – Trigonometry
MATH 108 – Pre-Calculus
MATH 114 – Elementary Probability and Statistics
MATH 154 Finite Mathematics
MATH 207 – Calculus I

SCIENCE
BIOL 101/101L – General Biological Science I
BIOL 102/102L - General Biological Science II
BIOL 120/121 – Human Anatomy & Physiology I
BIOL 122/123 – Human Anatomy & Physiology II
CHEM 125/125L – Introduction to College Chemistry & Lab
CHEM 127 – General Organic & Biological Chemistry I
CHEM 128 - General Organic & Biological Chemistry II
GEOL 101 – Geologic Science & Lab
LTEC 101 – Laboratory Technician I
LTEC 102 – Laboratory Technician II
LTEC 111 – Laboratory Technician III
LTEC 112 – Laboratory Technician IV
PHYS 103 – General Physical Science I
PHYS 104 – General Physical Science II

ELECTIVES
ART 103 – Introduction to Visual Art
ART 115 – Drawing I
BUSN 101 – Introduction to Business
BUSN 105 – Business Communications
BUSN 200 - Business Ethics
BUSN 210 - Marketing
CAHS 140 - Introduction to Healthcare
CAHS 141 - Introduction to Pharmacology
CAS 111 – Information Literacy
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CGEN 100</td>
<td>First Year Experience</td>
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<tr>
<td>CJST 200</td>
<td>Introduction to Criminal Justice System</td>
</tr>
<tr>
<td>CNET 121</td>
<td>Network +</td>
</tr>
<tr>
<td>CYBR 115</td>
<td>Introduction to Physical &amp; Technical Security</td>
</tr>
<tr>
<td>CYBR 160</td>
<td>Security +</td>
</tr>
<tr>
<td>ECON 123</td>
<td>Contemporary Economics</td>
</tr>
<tr>
<td>ECON 205</td>
<td>Principles of Macroeconomics</td>
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<tr>
<td>ECON 206</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>EDET 180</td>
<td>Building Better Relationships</td>
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<tr>
<td>EDET 181</td>
<td>Conflict Resolution</td>
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<tr>
<td>EDET 201</td>
<td>Fundamentals of Electricity I</td>
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<tr>
<td>EDET 202</td>
<td>Fundamentals of Electricity II</td>
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<td>EDUC 150</td>
<td>Seminar in Education</td>
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<tr>
<td>EDUC 200</td>
<td>Foundations in Education</td>
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<tr>
<td>ENGL 150</td>
<td>Play Production</td>
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<td>GSPE 210</td>
<td>Fitness for Life</td>
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<tr>
<td>IT 105</td>
<td>Computer Ethics</td>
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<tr>
<td>IT 111</td>
<td>Introduction to Literacy for IT Professionals</td>
</tr>
<tr>
<td>IT 180</td>
<td>A+ Hardware Essentials</td>
</tr>
<tr>
<td>IT 181</td>
<td>A+ Software Essentials</td>
</tr>
<tr>
<td>IT 185</td>
<td>Introduction to Linux</td>
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<tr>
<td>IT 188</td>
<td>Introduction to Programming Logic</td>
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<td>LANG 101</td>
<td>Sign Language I</td>
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<td>LANG 102</td>
<td>Sign Language II</td>
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<td>LANG 111</td>
<td>Spanish I</td>
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<td>LANG 131</td>
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<td>LGST 100</td>
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<td>MAST 102</td>
<td>Medical Terminology</td>
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<td>MDIA 101</td>
<td>Introduction to Media Studies</td>
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<td>Introduction to Adobe Photoshop</td>
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<td>Introduction to Digital Photography</td>
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<td>MECH 101/101L</td>
<td>Introduction to Mechatronics/ Introduction to Mechatronics Lab</td>
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<td>MUSIC 111</td>
<td>Introduction to Music</td>
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<td>PCSI 102</td>
<td>State &amp; Local Government</td>
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<td>PSYC 203</td>
<td>Introduction to Psychology</td>
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<td>SOCI 203</td>
<td>General Sociology</td>
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<td>SOCI 215</td>
<td>Human Relations</td>
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**WVU Potomac State-College/Jefferson County Schools Dual Credit courses**

For additional information about dual credit courses please see page 10 under the section on *College Credit* and speak to your school counselor.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ENGL 100 &amp; 102</td>
<td>Intro to Composition and Rhetoric</td>
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<tr>
<td>CSAD 270</td>
<td>Effective Public Speaking</td>
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<tr>
<td>ARHS 101</td>
<td>Landmarks of World Art</td>
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<tr>
<td>PSYC 101</td>
<td>Intro to Psychology</td>
</tr>
<tr>
<td>LDS 201</td>
<td>Leadership</td>
</tr>
<tr>
<td>HIST 209</td>
<td>Twentieth Century Europe</td>
</tr>
</tbody>
</table>
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 33 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.

AEROSPACE ENGINEERING
This course gives students the opportunity to integrate theory and practice by interacting with industry professionals. Students will study various requirements for employability including ethics, communication, teamwork and professionalism. Students will participate in hands-on, digital or work-based experiences related to industry settings in order to practice skill sets and to transition from student to employee.

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.

CODING, APP, & GAME DESIGN
Students with basic PC skills and foundational math and problem solving skills who plan on pursuing postsecondary studies in the computer and information technology fields will explore various technologies used to develop, design, and build websites, apps and games.

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 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.

MULTIMEDIA PUBLISHING
The Multimedia Publishing Program prepares students for college Communications and Journalism programs, as well as various media production jobs such as Copy Center Printing, Photography and Video Production Assistant, and Print. Television, and Online Journalism.

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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