

# JOHN MARSHALL

HIGH SCHOOL

**Course Catalog** 



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### John Marshall High School Mission Statement

The faculty, staff, and administration will provide a safe, caring, and productive environment for our students so that they will obtain necessary knowledge and skills to be dynamic citizens of our everchanging society.

Dear John Marshall High School Students and Parents,

The JMHS administration and counseling staff are pleased to present the new John Marshall High School Course Description Booklet. The purpose of this booklet is to guide students in planning their academic programs. This plan will assist in students selecting courses that fulfill the graduation requirements for the state of West Virginia and Marshall County Schools. Planning course work is an important aspect of each student's high school career, and a successful plan will prepare students for their post-graduation pursuits.

Students should carefully read and discuss their course options before making final decisions. Students may contact their counselor with any questions at 304-843-4444.

#### **COUNSELING DEPARTMENT**

The student's assigned counselor will handle all academic and scheduling issues.

JMHS Counseling Staff	Counselor by Alphabet (Last Name)	Email Address	Phone
Mika Ward	A - E	Mika.ward@k12.wv.us	304-843-4444 Ext. 231
Chelsea Eikleberry	F-L	Chelsea.linsky@k12.wv.us	304-843-4444 Ext. 232
Angie Curran	M - R	Amgessler@k12.wv.us	304-843-4444 Ext. 223
Sonya Holliday	S - Z	sdhollid@k12.wv.us	304-843-4444 Ext. 228
		Support Staff	
Melanie Knutsen	Career Counselor	mknutsen@k12.wv.us	304-843-4444 Ext. 142
Briann Myers	Counseling Secretary	Briann.myers@k12.wv.us	304-843-4444 Ext. 222

Please stop in the Counseling Office if you have any questions.

#### COLLEGE EARLY ENTRANCE/DUAL CREDIT AT JOHN MARSHALL

Dual credit is offered from West Virginia Northern Community College, West Liberty University, and West Virginia University to JMHS students through the "early entrance" programs of the respective schools. These courses are listed in the course description section with course requirements. Tuition fees are required and students must meet the prerequisite criteria set forth by each college. Dual credit courses carry an additional 1.0 value in GPA. The early entrance program is governed by the West Virginia Higher Education Policy Commission and as such, may change during the year. Decisions at the state level can affect and overrule local decisions regarding the offering of dual credit, so be sure to talk with a counselor to see which classes will be offered each semester.

Dual credit courses may be delivered at the high school, on the college campus, another site not located at the high school or college campus, in a virtual environment, or through a combination of these delivery methods. Dual credit courses taken in-person at WVNCC need to be scheduled outside of the typical school day. Students will not be permitted to leave school to attend dual credit courses during the school day. Dual credit courses may be taught by college faculty or by a high school teacher who has been approved by the college to teach the course. If dual credit is not earned and the course is failed, a student may earn high school credit for graduation through credit recovery. The college grading scale will be utilized to award grades for dual credit courses. The tuition and cost of college textbooks and materials will be paid by the student. If the college or university awards the grade, the scale may differ from West Virginia State Board of Education policy 2510 and expectations and scale detailed in the Board Policy 5421 - Grading. The Board shall allow for the grade to count toward the student's final

grade point average and class rank. John Marshall High School currently accepts the following Dual Credits, which are subject to change based on staffing or ability to offer:

AT JMHS:

WVU Math Courses for Trig and Algebra III
WVNCC Medical Terminology (Must be enrolled in Therapeutic Services)
WLU Business Management
WLU Speech
WLU Civics
WLU English 101 and 102
WLU Microbiology
WLU Spanish 3

#### AT WVNCC:

Additional early entrance classes can be taken at WVNCC after the completion of 10th grade. The courses below have been approved to be taken at WVNCC and transferred back to MCS for high school credit. Students may enroll and take additional courses at WVNCC, however, only the general education courses listed below shall transfer back for high school credit. Dual credits are approved annually at the Board of Education and are registered with the WVDE.

Early Enrollment/Dual Credit Crosswalk		
WVNCC Course	John Marshall Course	
ENG 101 - Composition I and ENG 102 - Composition II	English 12 - WVEIS 4012	
CIT 117 - Microsoft Applications	BCAI - WVEIS 1411 and BCAII - WVEIS 1413	
HIST 110 - US Until 1865 and HIST 111 - US Since 1865	AP US History - WVEIS 7046	
HIST 100 - World Cultures I and HIST 101 - World Cultures II	AP World History: Modern	
MATH 108 - College Algebra	Algebra III - WVEIS 3051	
MATH 109 - Mathematics of Business and Finance	Accounting II - WVEIS 1403	
MATH 110 - Pre-Calculus	AP Pre-Calculus - WVEIS 3038	
MATH 279 - Calculus I	AP Calculus AB - WVEIS 3031	
MATH 280 - Calculus II	AP Calculus BC - WVEIS 3032	
MATH 210 - Statistics	AP Statistics - WVEIS 3033	
PSYC 105 - Introduction to Psychology	AP Psychology - WVEIS 7047	
SOC 125 - Introduction to Sociology	Sociology - WVEIS 7341	
BIO 110 - Principles of Biology	AP Biology - WVEIS 6121	
BIO 114 - Anatomy and Physiology I and BIO 115 - Anatomy and Physiology II	Human Anatomy and Physiology - WVEIS 6103	
SPCH 105 - Fundamentals of Speech Communication	Speech/Oral Communication - WVEIS 4076	
POL 102 - American National Gov ernment and Politics	AP U.S. Gov ernment & Politics - WVEIS 7044	
CHEM 108 - General Chemistry I and CHEM 109 - General Chemistry II	AP Chemistry - WVEIS 6321	
ART 150 - Art Appreciation	AP Art History - WVEIS 3221	
MUS 150 - Appreciation of Music	Music Appreciation - WVEIS 3746	
GEO 205 - World Geography	AP Human Geography - WVEIS 7042	

#### **DUAL ENROLLMENT**

Dual enrollment means the registration of an eligible secondary student in a post-secondary course creditable toward high school completion and a career technical certificate, associate degree, or baccalaureate degree. Students enrolled in post-secondary instruction that is not creditable towards a high school diploma may not be classified as a dual enrollment student. The following dual enrollment pathways are available through a Memorandum of Understanding between Marshall County Schools and WVNCC:

WVNCC/MCS Dual Enrollment Pathways						
WVEIS Code	WVEIS Title	HS Credit	WVNCC Code	WVNCC Title	College Credit	
	Child De	velopment & Te	acher Education			
1306	Intro to Education and the Classroom	1 Credit	ECCE 100	Foundations of Education	3 Hours	
1307	Intro to Child Development	1 Credit	PSYC 210	Child Development	3 Hours	
1308	Intro to Educational Psychology	1 Credit	PSYC 208	Dev elopmental Psychology	3 Hours	
1309	Intro to Social, Emotional and Behavioral Wellness	1 Credit	ECCE 212	Child, Families, and Communities	3 Hours	
		Health Ca	re			
0721	Medical Terminology	1 Credit	AHS 103	Medical Terminology	1 Hour	
0789	Clinical Specialties I	1 Credit	PCT 101	Patient Care Tech I	5 Hours	
0790	Clinical Specialties II	1 Credit	PCT 151	Patient Care Tech II	6 Hours	
n/a	American Heart Association CPR & First Aid Cert.	n/a	HPE 110	CPR and First Aid	1 Hour	
		Busines	3			
1401	Accounting I	1 Credit	ACC 122	Principles of Accounting I	3 Hours	
1403	Accounting II	1 Credit	MATH 109	Mathematics of Business and Finance	3 Hours	
1411	Business Computer Applications I		CIT 117	Microsoft Applications	3 hours	
1413	Business Computer Applications II	1 Credit	Cii 117	Meroson / ppileanons	3 110015	
1439	Business and Marketing Essentials	1 Credit	BA 100	Intro to Business	3 Hours	
1407	bosinoss and Marketing Essentials	1 Clodii	ECON 104	Principles of Macroeconomics	3 Hours	
Construction & Manufacturing						
1862	Welding I	1 Credit	WELD 102	Basic Shielded Metal Arc Welding	6 Hours	
1863	Welding II	1 Credit		basic official morality of tholaing	0.10013	
1864	Welding III	1 Credit	WELD 202	Beginning MIG	3 Hours	
1865	Welding IV	1 Credit	WELD 206	Beginning TIG	3 Hours	
n/a	OSHA 30 Certification	n/a	APT 103	Safety Hazard Recognition	3 Hours	

#### **EMBEDDED CREDIT**

An Embedded Credit Course incorporates content standards and objectives for an embedded credit from one credit bearing high school course into another (host) course(s) and allows students to earn credit for both. Embedded credit does not allow for two courses in the same content area (e.g., Algebra I and Geometry) to be embedded into one course. The intent of embedded credit is not to create a time-shortened high school experience but rather to provide opportunities for students to participate in advanced academic and/or career/technical education courses without having to choose one over the other.

It is the responsibility of the student to determine the impact of an embedded credit on NCAA eligibility, college entrance, SAT/ACT scores, and successful completion of entrance exams for various trades. Students can consult their counselor on these topics as necessary.

Students will receive high quality instruction that will allow them to work toward mastery on 100% of the content standards and objectives for all embedded credit courses approved by the county and submitted for approval to the WVBE. Credit will be awarded at the end of a particular course or multiple courses where the credit is embedded. Students must receive an actual letter grade they cannot receive a pass or fail.

A complete list of programs that yield embedded credits can be found at <a href="https://wvde.us/wpcontent/uploads/2024/01/Embedded-Fulfillment-Doc-12.19.2023-3-1\_Jody-Wilkinson.pdf">https://wvde.us/wpcontent/uploads/2024/01/Embedded-Fulfillment-Doc-12.19.2023-3-1\_Jody-Wilkinson.pdf</a>.

#### MAKING COURSE SELECTIONS

Read this course description guide carefully. Each year of high school must be carefully planned to assure the student has fulfilled all requirements to enter post-secondary education or to begin a career with job-related skills upon graduation. As courses are selected, students and parents must determine if the selections are focused toward future educational or career plans. Students can use the checklist below to help determine their course selections:

- Determine the career focus that you are preparing to pursue.
- Review your four-year plan in the program of study to identify which courses are most appropriate for your career path.
- ✓ Determine the specific graduation requirements necessary at each grade level.
- Read each course description. Be familiar with the courses that are appropriate for each grade and career path. If you are unsure, consult with your counselor.
- ✓ Make sure that there is a clear understanding of course prerequisites. Some courses require certain grade averages, test scores, attendance requirements, or teacher recommendations.

#### PARTICIPATION IN GRADUATION EXERCISES

To participate in graduation exercises at any Marshall County public high school, a student must have completed, without exception, all requirements for graduation as defined in Graduation Requirements or Board Policy for graduation. Students are, ultimately, responsible for tracking their own credits for graduation. Students who fall short of requirements in any area shall not participate in such exercises. The school also reserves the right to prohibit students from participating in graduation based on school discipline leading up to graduation. **Source: Marshall County Board of Education Policy and/or minutes.** 

#### ADVANCED PLACEMENT

Advanced Placement (AP) courses provide rich course material, classroom discussions, and demanding assignments. The assignments typical of AP courses will help students develop the content mastery and critical thinking skills expected of college students, and feel confident in their abilities. Successful completion of national AP tests can lead to earning college credit and help a student stand out in the college admission process. AP courses require above-average test scores, teacher recommendation, and at least a 3.0 GPA. AP classes require additional time commitments for coursework both in class and outside of school in the form of summer readings, independent research, homework assignments, and study time. The amount of time will be higher than the amount of time designated for Honors classes. Students carrying a high number of AP classes need to take this into consideration especially if participating in after school curricular activities or working a part-time job. AP courses carry an additional 1.0 GPA value. A comprehensive list of AP Credits by College or University can be found at the following link: <a href="https://apstudents.collegeboard.org/getting-credit-placement/search-policies">https://apstudents.collegeboard.org/getting-credit-placement/search-policies</a>.

From College Board: What AP Stands For

- 1. AP stands for clarity and transparency. Teachers and students deserve clear expectations. The Advanced Placement Program makes public its course frameworks and sample assessments. Confusion about what's permitted in the classroom disrupts teachers and students as they navigate demanding work.
- 2. AP is an unflinching encounter with evidence. AP courses enable students to develop as independent thinkers and to draw their own conclusions. Evidence and the scientific method are the starting point for conversations in AP courses.
- 3. AP opposes censorship. AP is animated by a deep respect for the intellectual freedom of teachers and students alike. If a school bans required topics from their AP courses, the AP Program removes the AP designation from that course and its inclusion in the AP Course Ledger provided to colleges and universities. For example, the concepts of evolution are at the heart of college biology, and a course that neglects such concepts doesn't pass muster as AP Biology.
- 4. AP opposes indoctrination. AP students are expected to analyze different perspectives from their own frame of reference, and no points on an AP Exam are awarded for agreement with a viewpoint. AP students aren't required to feel certain ways about themselves or the course content. AP courses instead develop students' abilities to assess the credibility of sources, draw conclusions, and make up their own minds. As the AP English Literature course description states: "AP students are not expected or asked to subscribe to any one specific set of cultural or political values, but are expected to have the maturity to analyze perspectives different from their own and to question the meaning, purpose, or effect of such content within the literary work as a whole."
- 5. AP courses foster an open-minded approach to the histories and cultures of different peoples. The study of different nationalities, cultures, religions, races, and ethnicities is essential within a variety of academic disciplines. AP courses ground such studies in primary sources so that students can evaluate experiences and evidence for themselves.
- 6. Every AP student who engages with evidence is listened to and respected. Students are encouraged to evaluate arguments but not one another. AP classrooms respect diversity in backgrounds, experiences, and viewpoints. The perspectives and contributions of the full range of AP students are sought and considered. Respectful debate of ideas is cultivated and protected; personal attacks have no place in AP.
- 7. AP is a choice for parents and students. Parents and students freely choose to enroll in AP courses. Course descriptions are available online for parents and students to inform their choice. Parents don't define which college-level topics are suitable within AP courses; AP course and exam materials are crafted by committees of professors and other expert educators in each field. AP courses and exams are then further validated by the American Council on Education and studies that confirm the use of AP scores for college credits by thousands of colleges and universities nationwide.

The AP Program encourages educators to review these principles with parents and students so they know what to expect in an AP course. Advanced Placement is always a choice, and it should be an informed one. AP teachers should be given the confidence and clarity that once parents have enrolled their child in an AP course, they have agreed to a classroom experience that embodies these principles

#### **HONORS COURSES**

John Marshall High School offers honor courses to academically advanced students. These courses offer in-depth scholarly exploration into the subject area. Honors classes will carry an additional workload in the area of after school homework, reading assignments, study time and summer reading. Honors classes carry an additional .5 GPA value.

#### **CAREER and TECHNICAL EDUCATION**

Career and Technical Education at John Marshall encompasses a great variety of programs designed to equip students with work and life skills. Students explore career options and develop skills they will need to be successful in the modern workplace as well as prepare them for many technical college courses. Some courses can be a springboard to immediate employment for many graduates. Other students rely on technical education courses to prepare them for college and other post-secondary learning opportunities. More information can be found at https://wvde.us/technical-education/.

#### **PROJECT LEAD THE WAY COURSES**

PLTW empowers students to develop and apply in-demand, transportable skills by exploring real-world challenges. Through our pathways in computer science, engineering, and biomedical science, students not only learn technical skills, but also learn to solve problems, think critically and creatively, communicate, and collaborate. By creating an engaging learning environment, PLTW programs empower students to develop in-demand skills to pursue rewarding careers, solve important challenges, and contribute to global progress. John Marshall offers PLTW courses in biomedical, engineering, and computer sciences. These courses must begin with each program's intro course as a pre-requisite. Specific courses in this pathway are recognized as high school lab science credits. Students can earn Career Technical Completer certificates for taking all 4 courses in a given pathway. PLTW classes carry an additional .5 GPA value.

#### **EDGE ARTICULATION AGREEMENT**

Earn a Degree, Graduate Early (EDGE) was created to address certain areas of curriculum duplication and at the same time provide incentives for more students to continue their education beyond high school. Students who participate in the EDGE initiative can earn community and technical college credit, free of charge, for the duplicated secondary and postsecondary courses identified during the curriculum alignment process.

To be eligible to receive credit in the EDGE initiative, a high school student must:

- 1. Enroll in an eligible EDGE high school course.
- 2. Pass the high school course and take one additional course at the community college with your EDGE credit to generate a transcript.

All John Marshall students will be provided the opportunity to enroll in EDGE courses. EDGE courses are identified throughout the Course Description Booklet where the credit is listed for each class by a course code that ends in "E". The following is an example of how credits will transfer at WV Northern Community College:

College:	WV Northern
Course Name	Credits
AC Circuit Concepts	4 hrs (must complete courses 1666 and 1667) - EL 112
Accounting Principles I	3 hrs (must complete courses 1401 and 1403) - ACC 122
Accounting Principles II	3 hrs (must complete courses 1401 and 1403) - ACC 122
Business and Marketing Essentials	3 hrs BA 100
Business Computer Applications I	3 hrs (must complete courses 1411 and 1413) - CIT 117
Business Computer Applications II	3 hrs (must complete courses 1411 and 1413) - CIT 117
DC Circuit Concepts	4 hrs (must complete courses 1666 and 1667) - EL 112
Foundations of Education	3 hrs - ECCE 214
Student Learning Development and Diversity	3 hrs- ECCE 212
Teacher Preparation: Seminar in Education	3 hrs- PSYCH 210
Management and Entrepreneurship	3 hrs- MGT 253
Marketing Applications	3 hrs. (must complete courses 0425 and 0422)- MKT 230
Marketing Principles	3 hrs. (must complete courses 0425 and 0422) - MKT 230
Medical Terminology	1 hr- AHS 103
Technical Computer Applications	3 hrs- CIT 117
Web Development and Support	3 hrs CIT 205
Web Page Publishing	2 hrs CIT 187
Welding I	1 hr- WELD101
Welding II	6 hrs- WELD 102
Welding III	3 hrs- WELD 202
Welding IV	3 Hrs- Welding 206
	Course Name  AC Circuit Concepts  Accounting Principles I  Accounting Principles II  Business and Marketing Essentials  Business Computer Applications I  Business Computer Applications II  DC Circuit Concepts  Foundations of Education  Student Learning Development and Diversity  Teacher Preparation: Seminar in Education  Management and Entrepreneurship  Marketing Applications  Marketing Principles  Medical Terminology  Technical Computer Applications  Web Development and Support  Web Page Publishing  Welding II  Welding III

Any college course on the EDGE credit cross walk can be returned for the equivalent high school course/s. Use the following link to explore options: <a href="https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwvde.us%2Fwpcontent%2Fuploads%2F2021%2F03%2FEDGE-Search-by-College-3.16.21-RL.xlsx">https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwvde.us%2Fwpcontent%2Fuploads%2F2021%2F03%2FEDGE-Search-by-College-3.16.21-RL.xlsx</a>

#### PROMISE SCHOLARSHIP INFORMATION

Must complete high school graduation requirements at a West Virginia public or private high school. Must complete at least one half of credits required for high school graduation through attendance at a public or private high school in the state of West Virginia.

 Limited exceptions are available for students from West Virginia who commute daily to an out-of-state public or private high school and who qualify as a military dependent under Section 6 of the PROMISE Scholarship Program Rule.

Must achieve a cumulative grade point average of at least a 3.0 on a 4.0 scale or whatever is considered a "B" average, based on county board grading policies, in both core courses AND overall coursework required for graduation by the West Virginia Department of Education.

- The Core grade point average is determined based on the grades in all core courses a student completes on the core class listing, not just those required for graduation.
- Initial eligibility will be determined by grades at the end of the seventh high school semester, but applicants may qualify as late as after the eighth semester.

- Students using the last semester of high school to determine their eligibility are responsible for having their school send an official transcript identifying both the core and overall grade point averages.
- Applicants who qualify with seventh semester grades must maintain the grade point average requirement through the eighth semester or the scholarship will be revoked.
- If a student does not have a qualifying seventh semester grade point average, they must apply and have a completed FAFSA submitted by the March 1 deadline to be considered.
- Grade point average determination must be determined by a high school counselor or school official.
- Weighted grades may be used based on county board grading policy.

#### Dual Credit and other College Coursework

- Students can take an unlimited number of credit hours prior to college enrollment and still be eligible for PROMISE Scholarship.
- College coursework taken in high school will count toward initial eligibility but not toward PROMISE renewal requirements.
- Students should visit the following link for information regarding Promise Scholarship renewal: https://www.collegeforwv.com/programs/promise-scholarship/renew-your-scholarship/

Students must complete the minimum core requirements listed here.

- English 4 credits
- Mathematics 4 credits
- Social Sciences 4 credits
- Natural Sciences 3 credits

#### Minimum Test Score Requirements

Must meet standardized test score criteria on ACT or SAT national test by the June testing dates of the application year.

- ACT Score requirement: 21 composite score with a minimum of 19 in English, Mathematics, Science, and Readina.
- SAT Score requirement: 1080 combined score with minimum of 510 in Mathematics and 510 in Evidence-Bade Reading and Writing.

#### **PROMOTION CREDIT REQUIREMENTS**

Students need to earn a minimum number of credits each year to be considered for upper class standing. Those requirements are:

To be considered a sophomore ( $10^{th}$  grade) a student must earn a minimum of five (5) cumulative credits in his freshman year ( $9^{th}$  grade).

To be considered a junior (11<sup>th</sup> grade) a student must earn a minimum of ten (10) cumulative credits from his freshman and sophomore (10<sup>th</sup> grade) years.

To be considered a senior (12<sup>th</sup> grade) and a candidate for graduation, a student must earn a minimum of eighteen (18) credits from his freshman (9<sup>th</sup> grade), sophomore (10<sup>th</sup> grade) and junior (11<sup>th</sup> grade) years.

One half credit (.5) is awarded for each semester of successfully completed work. Two semesters of successfully completed work equals one full credit. An earned letter grade of "D" or better is considered a passing mark.

#### WEST VIRGINIA VIRTUAL SCHOOL

Courses through the WVVS assure consistent, high quality education for the students of West Virginia. The WVVS helps bridge the barriers of time, distance and inequities for all West Virginia students by providing access to online courses aligned to current state standards. All courses are reviewed by a committee of West Virginia teachers who screen courses to ensure West Virginia standards are met. Online teachers with the WVVS are certified in the content area. In an effort to promote efficacy and equity in educational opportunities, courses are available to all students statewide.

Beginning with the 2020-21 school year, the grace period to withdraw a student from a virtual course at no penalty is 14 days. The school must record a grade of WF (Withdrawn Failing) for a student who drops a course after the 14-day grace period. Grades must be recorded by using the percentage grade issued by the online instructor. Most course providers recognize grading scales vary from state to state and do not post a letter grade to the final grade report.

Advanced students who are looking to enhance their education with electives not offered by John Marshall may be able to take virtual classes through an online environment. These classes require work outside of the normal day

<sup>\*</sup>Consult <u>www.cfwv.com</u> for the latest information about the PROMISE Scholarship.

and a great deal of focus and discipline on the individual student to be successful. Students who do well learning independently may be eligible to try virtual classes. Classes such as Cisco Networking, Interactive Game Design, Latin, German, Mandarin Chinese, Japanese, and others are available through the West Virginia Virtual School. More information about courses offered can be found at the following link: <a href="https://wveis.k12.wv.us/vschool/courses/coursecatalog.cfm">https://wveis.k12.wv.us/vschool/courses/coursecatalog.cfm</a>.

#### **CREDIT RECOVERY**

For students who need to recover credits from a core curricular class they <u>previously</u> failed, JM offers a credit recovery program. The credit recovery program uses Edmentum to deliver subject material via an online program. Students should see their counselor to learn more information and start the program. Completing credit recovery can influence a student's ability to play college athletics.

#### **GRADING SCALE AND WEIGHTS**

The WVBOE establishes a uniform grading scale for all students in WV. Additionally, the guidelines for quality points assigned to grades to generate weighted GPAs are outlined by the WVBOE. The following charts outline the standard scales used by John Marshall.

<b>Grading Scale</b>	
90-100	Α
80-90	В
70-80	С
60-70	D
0-60	F

Standar	d Quality Points	AP Qua	lity Points	Dual Cr	edit Quality Points	Honors	Quality Points
<u>A</u>	4.0	A	5.0	<u>A</u>	<u>5.0</u>	<u>A</u>	4.5
<u>B</u>	3.0	<u>B</u>	4.0	<u>B</u>	4.0	В	3.5
<u>C</u>	2.0	C	3.0	С	3.0	<u>C</u>	2.5
D	1.0	D	2.0	D	2.0	D	1.5
F	0.0	<u>F</u>	0.0	<u>F</u>	0.0	<u>F</u>	0.0

### **West Virginia State Graduation Requirements**

Core Requirements (	Core Requirements (19 credits)		
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** Algebra I Geometry Algebra II Pre-Calculus, Applied Statistics, or Transition Mathematics for Seniors* or any other fourth course option such as Advanced Mathematical Modeling An AP® Mathematics course may be substituted for an equivalent course or any fourth course option.  John Marshall requires 4 credits of mathematics and AT LEAST 3 consecutive years of high school credits in mathematics.		
Science*	3 credits  Earth and Space Science (Grade 9)  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 Contemporary Studies or an AP® Social Studies course Civics for the Next Generation or AP® Government and Politics.
Physical Education*	1 credit  Physical Education 9-12 (WV Education Information System [hereinafter WVEIS course 6609]). At least 50 percent of class time for physical education should be spent in moderate to vigorous-intensity physical activity.  Physical Education credit can also be earned through participation in SSAC sanctioned sports.
Health*	1 credit Health 9-12 (WVEIS course 6909)
The Arts*	1 credit
Personal Finance*	1 credit Beginning with the 2024-2025 cohort, all students will be required to complete 1 credit of personal finance during the junior or senior year of high school.
Graduation Requirements (5	5 personalized)

#### Personalized Education Plan

#### 4 credits

Each student's 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 and recognized Career and Technical Education (hereinafter CTE) credential focused on career aspirations.

### Career and Technical Education (CTE)\*

The four credits taken in a career and technical concentration must be consistent with those identified for WVDE approved career and technical programs of study. (Refer to W. Va. 126CSR44M, Policy 2520.13: Common Core Content Standards for Career and Technical Education in West Virginia Schools.) Each career and technical concentration in a school shall provide students the opportunity to obtain an industry recognized credential as part of the instructional program when applicable.

School systems wishing to offer a concentration outside of the state approved CTE concentrations, must have four related courses approved by the local board of educations.

Approved WV Career Clusters

Agriculture, Food and Natural Resources

Architecture and Construction

Arts, A/V Technology and Communication

Business Management and Administration

**Education and Training** 

Government and Public Administration

Health Sciences

Hospitality and Tourism

**Human Services** 

Information Technology

Maintenance/Operations

Manufacturing

Marketing

Science, Technology, Engineering and Mathematics

Transportation, Distribution and Logistics

Students with disabilities may earn 4 credits in Community Readiness Training recommended through an IEP Team as a personalized concentration.

World Languages	Communicating in a global society requires students to apply appropriate language strategies through embedded opportunities to explore and gain an understanding of the world around them. Undergraduate admission to West Virginia four-year colleges and universities include the completion of two units of the same world language.
Electives	2 Credits  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.
Developmentally Appropriate Prac	ctices for Student Success and Career Readiness
Career Development	All students in grades 9-12 will be provided structured, on-going experiences for career exploration, decision making, and career preparation. Career development shall be an integrated approach, engaging all staff in assisting students during the school day to explore the 16 career clusters. Career exploration will include opportunities for students to discover their interests in emerging careers including STEM careers in science, oil & gas, technology, engineering, and math. The school will engage student advisors in utilizing each student's career awareness activities to develop the PEP. Advisors will assist students and their parents to utilize their various interests, learning styles, career and academic assessments to guide educational planning and career choices. Career exploration activities will be documented in each student's personalized career portfolios.
Comprehensive School Counseling Program	A standards-focused, integrated, comprehensive and developmental school counseling program will assist students with the acquisition of school success and career readiness skills to prepare for high school and postsecondary success. School counselors will work collaboratively with other school staff to assist students with academic and postsecondary planning that leads to seamless transitions to the identified postsecondary options. Refer to WVBE Policy 2315 to ensure alignment with policy requirements.
Student Advocate/Advisor/Mentor	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. The advisory system shall be evidence based and systemically integrate school success and career readiness skills (e.g., work, ethic, communication skills, team work, collaborative skills, personal responsibility, social skills, organization, financial literacy, and study skills).
Physical Activity	High schools should recognize that healthy lifestyles and academic success are tightly interwoven. Therefore, schools should promote wellness activities that extend beyond the course requirements for physical education and health. This may be accomplished through programs that focus on skill development, sportsmanship and teamwork. Opportunities should be provided for 30 minutes of moderate to vigorous integrated physical activity daily to keep high school students physically active throughout the school year. Wellness education should target the widespread behaviors that undermine the health and resulting capacity for personal success during adolescence.
Technology	Students in grades 9-12 will be provided regular opportunities within the context of normal course work to master the standards set forth in WVBE Policy 2520.14. The infrastructure of classrooms should infuse technology and pedagogy to transform instruction, thus leading to improved student engagement. It is recommended that all students complete an online learning experience during grades 9-12. Students must be provided opportunities for advanced technology applications.

#### **IMPORTANT SCHEDULING NOTE**

The John Marshall High School Master Schedule is based on WVDE high school curriculum requirements and driven by student numbers and student interest. Courses and total course sections offered are determined by the number of students expressing interest in the course. While elective courses are offered in this booklet, courses may not be taught in a given school year if student numbers or personnel are not sufficient to offer the class.

#### JMHS Alma Mater

The glory of John Marshall High Will live for years to come.
The faculty and students are
United into one

When we leave we'll ne'er forget
The times we spent in learning,
The knowledge and the friendships true
Which came for all our yearning.

All hail dear John Marshall
This love song lives for you
With all our hearts
We wish to say,
"We love you, yes we do!"

-written and composed by senior student Reva Litman (now Reva Icard) in 1968

#### **How To Read a Course Description**

COURSE TITLE: English Language Arts 10 American Literature Honors Course Number: 40101H Course Number used in scheduling 40102H Grade Level: Grade level of students who can enroll in the 10 course Graduation Credit: Graduation requirement met by the course and the 1 Language number of credits earned Arts

The content is the same as American Literature with more depth and at a quicker pace for the advanced student. Since this is a feeder course into AP Literature 11, students are required to enrich their literary background through assigned summer reading and supplemental reading throughout the school year. The approximate out of class preparation time for this course is 1 to 2 hours per evening.

**Duration**: 2 semesters

**Prerequisite**: See criteria for Honors Placement. Must pass both semesters of English Language Arts 9 in order to take Honors. For students not in honors class last year or a transfer student, standardized test scores and grades will be used.



Course Name

# **CORE COURSES**

### **ENGLISH**

COURSE TITLE:	English Language Arts 9
Course Number: 400910 400920	English Language Arts 9 focuses on the Next Generation CSOs in reading, writing, grammar, speaking and technology that the state requires be taught with an emphasis placed on writing.
Grade Level: 9	Duration: 2 semesters
Graduation Credit: 1 Language Arts	
COURSE TITLE:	English Language Arts 9 Honors
Course Number: 40091H 40092H	English Language Arts 9 Honors has the same concepts as English Language Arts 9.  More formal writing will be introduced. Literary structures will be analyzed and elements of writing will be surveyed.
Grade Level: 9	Duration: 2 semesters
Graduation Credit: 1 Language Arts	Prerequisite: Students must pass both semesters of English Language Arts 8 and receive a teacher recommendation. Standardized test scores and grades will be considered to determine proficiency for entry.
COURSE TITLE:	English Language Arts 10
Course Number: 401010 401020 Grade Level: 10	The Next Generation CSOs surveys various genres of fiction and non-fiction literature. Emphasis is placed on major literature samples, writers, and historical literary background. A research paper/project using MLA format is required. All content standards including grammar and mechanical skills are covered. Out-of-class assignments including reading and writing are required in this course.
Graduation Credit: 1 Language Arts	Duration: 2 semesters
COURSE TITLE:	English Language Arts 10 Honors
Course Number: 40101H 40102H  Grade Level: 10  Graduation Credit: 1 Language Arts	The Next Generation CSOs surveys various genres of fiction and non-fiction literature. Emphasis is placed on major literature samples, writers, and historical literary background. A research paper/project using MLA format is required. All content standards – including grammar and mechanical skills – are covered. Out-of-class assignments – including reading and writing – are required in this course. Since this is a feeder course into English Language Arts 11 Advanced Placement, students are required to enrich their literary background through assigned summer reading.
	Duration: 2 semesters
	Prerequisite: Students must pass both semesters of English Language Arts 9. Standardized test scores and grades will be considered to determine proficiency for entry.
COURSE TITLE:	English Language Arts 11
Course Number: 401110 401120 Grade Level: 11	This Next Generation CSOs surveys English literature from the Anglo-Saxon era to the present. Emphasis is placed on major literary samples, writers, and historical literary background of Great Britain. A research project/paper is required. Grammar and mechanical skills are reviewed.
Graduation Credit: 1 Language Arts	Duration: 2 semesters

#### **COURSE TITLE: English Literature and Composition AP** Course Number: The AP English Literature and Composition is an introductory college-level literary 40421A analysis course. Students cultivate their understanding of literature through reading and 40422A analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works. The AP English Grade Level: 11 Literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in close reading and critical analysis of imaginative literature to deepen their Graduation Credit: understanding of the ways writers use language to provide both meaning and 1 Language Arts pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. Successful passage of the exam provides student with the opportunity to earn up to six hours of college credit or honors recognition at the college level. By choosing to enroll in this college-level course, students agree to engage with college-level topics, texts, perspectives, debates, and arguments including but not limited to diverse issues regarding nationalities, cultures, religions, races, and ethnicities. Alternate assignments will not be given. Students also understand they will be required to regularly complete assignments outside of class and adhere to strict deadlines for the completion of work. Duration: 2 semesters Prerequisite: Student must have a "B" average or better in English Language Arts 10; Standardized test scores and grades will be considered to determine proficiency for COURSE TITLE: **English Language Arts 12** Course Number: This course focuses on reading and writing non-fiction prose, principally narrative, 401210 persuasive, and expository essays, to allow for successful transition to post-secondary 401220 schools. Students closely analyze written and visual sources, synthesize material from these texts to create their own compositions, create and present multimedia projects Grade Level: 12 and utilize MLA and APA conventions. All content standards and objectives are covered. Out-of-class reading and writing is required in this course. Graduation Credit: Duration: 2 semesters 1 Language Arts COURSE TITLE: **English Language and Composition AP** The AP English Language and Composition course aligns to an introductory college-Course Numbers: 40411A level rhetoric and writing curriculum, which requires students to develop evidence-40412A based analytic and graumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Grade Level: 12 Students read and analyze the rhetorical elements and their effects in non-fiction written and visual texts from many disciplines and historical periods. Extensive out of Graduation Credit: class reading and writing is required in this course, including summer assignments. 1 Language Arts Successful passage of the exam provides student with the opportunity to earn up to six hours of college credit or honors recognition at the college level. By choosing to enroll in this college-level course, students agree to engage with college-level topics, texts, perspectives, debates, and arguments including but not limited to diverse issues regarding nationalities, cultures, religions, races, and ethnicities. Alternate assignments will not be given. Students also understand they will be required to regularly complete assignments outside of class and adhere to strict deadlines for the completion of work.

Prerequisite: Must have a B or better average in English Language Arts 11; Standardized test scores and grades will be considered to determine proficiency for entry. It is recommended students consider taking AP Civics and Government concurrently.

Duration: 2 semesters

COURSE TITLE:	English Language and Composition Dual Credit
Course Numbers:	This class focuses on the fundamentals of expository writing and emphasizes various
40121X	rhetorical strategies, such as definition, comparison/contrast, and others. This course will
40122X	also introduce proper quotation, paraphrase, and summary of sources, and will review
	basic grammatical and mechanical skills. this course will and emphasizes persuasion,
Grade Level: 12	argumentation, and researched writing. Students will undertake a researched writing
	project involving several process drafts, which conclude in a well-documented
Graduation Credit:	academic essay. By choosing to enroll in this college-level course, students agree to
1 Language Arts	engage with college-level topics, texts, perspectives, debates, and arguments
	including but not limited to diverse issues regarding nationalities, cultures, religions,
College Credit: WLU	races, and ethnicities. Alternate assignments will not be given. Students also understand
ENG 101 and ENG 102	they will be required to regularly complete assignments outside of class and adhere to
	strict deadlines for the completion of work.
	Duration: 2 semesters

### **ENGLISH ELECTIVES**

Creative Writing I (Prose) & II (Poetry)
The course provides an opportunity for the student to develop personal writing skills. It is designed to develop interest and talents and provide opportunities for creative self-expression in exposition, short story, poetry, and other prose writing.
Duration: 1 semester
Mythology
This course offers students the opportunity to study Greek, Norse, and Arthurian legends and myths. Emphasis is placed on the influence myths and legends have on the thought, culture, literature, and language of Western civilization. Students who are credit deficient in English will not be accepted in this class.  Duration: 2 semesters
Speech/Oral Communication
Content touches on verbal and non-verbal communications, listening, group communications, interviewing, speech writing and delivery, demonstrations as well as research skills. An introduction to forensics is included. Students should be enrolled in or have completed American Literature or 9th grade English Honors.  Duration: 1 semester

COURSE TITLE:	Speech 2 Dual Credit
Course Numbers: 41651X  Grade Level: 11-12 Graduation Credit: ½ Elective College Credit: WLU COM 101	Content consists of learning to prepare and deliver speeches in the following areas: Dramatic Duo, After Dinner Speaking, Original Oratory, Parliamentary Procedure, Impromptu, and Extemporaneous Speaking, Dramatic and Humorous Interpretation, Interpretation of Prose and Poetry.  Duration: 1 semester  Prerequisite: Successful completion of Speech/Oral Communication 1 with a "C" or better average.
COURSE TITLE:	School Veerbook I. II. III. IV
COURSE IIILE:  Course Numbers: 407110 407120 407210 407220 407310 407320 407410 407420  Grade Level: 9-12  Graduation Credit: 1 Elective	Students in Yearbook Vill engage in the entire process of producing the current annual edition. Students will engage in all types of production activities including sales, advertising, writing copy, page layout, and use of various computer programs including word processing and desktop publishing. Previous experience in writing, journalism, desktop publishing, or photography is helpful but not required. Students will learn basics of journalism, design, photography, writing, and business.  Prerequisite: Students must successfully complete the application process to be considered for a staff position. Students must have had a "B" or better in English the previous year to be eligible for this class. Students who are credit deficient in ENGLISH will not be accepted into this class.
COURSE TITLE:	AP Seminar
Course Numbers: 40451A 40452A  Grade Level: 9-12  Graduation Credit: 1 Elective	Students investigate real-world issues from multiple perspectives, gathering and analyzing information from various sources in order to develop credible and valid evidence-based arguments and presentations. Students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Extensive out of class reading and writing is required in this course.  Duration: 2 semesters  Prerequisite: Must be a sophomore or junior, have a current GPA of 3.0 and receive recommendations from at least two current teachers; Standardized test scores will be considered to determine proficiency for entry.
COURSE TITLE:	AP Research
Course Numbers: 40461A 40462A  Grade Level: 9-12  Graduation Credit: 1 Elective	AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a yearlong research based investigation to address a research question. In the AP Research 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 of approximately 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. Extensive out of class reading and writing is required in this course.  Duration: 2 semesters  Prerequisite: Student must successfully complete the AP Seminar course.

# **MATHEMATICS**

COURSE TITLE:	Algebra I
Course Numbers:	Students in Algebra 1 will focus on units that deepen and extend understanding of
306110 306120	linear and exponential relationships. They will also engage in methods for analyzing,
300120	solving, and using quadratic functions. Students will continue developing mathematical proficiency in a developmentally-appropriate progressions of standards.
Grade Level: 9	
Cuardo atiana Cua alita	Duration: 2 semesters
Graduation Credit:  1 Math	
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COURSE TITLE:	Algebra I Honors
Course Numbers:	Students in Algebra 1 Honors will focus on units that deepen and extend understanding
30611H 30612H	of linear and exponential relationships. They will engage in methods for analyzing, solving, and using quadratic functions. Algebra 1 Honors is designed to provide
5551211	students with an in-depth level of instruction at an accelerated pace, covering
Grade Level: 9	additional topics. The course emphasizes critical thinking and real world problem
Graduation Credit:	solving. It is targeted to highly motivated students who have some understanding of Algebra.
1 Math	Algebia.
	Duration: 2 semesters
	Prerequisite: Student must have teacher recommendation and B or above in 8th grade
	math.
COURSE TITLE:	Geometry
Course Numbers: 306210	Students in Geometry will explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical
306220	arguments. Important differences exist between this Geometry course and the historical
	approach taken in other geometry classes. For example, transformations are
Grade Level: 10	emphasized early in this course. Students will continue developing mathematical
Graduation Credit:	proficiency in a developmentally-appropriate progressions of standards. Students will continue the skill progressions from previous courses.
1 Math	
	Duration: 2 semesters
COURSE TITLE:	Geometry Honors
Course Numbers:	Students in Geometry Honors will explore more complex geometric situations and
30621H	deepen their explanations of geometric relationships, moving towards formal
30622H	mathematical arguments. Important differences exist between this Geometry course and the historical approach taken in other geometry classes. For example,
Grade Level: 9-10	transformations are emphasized early in this course. Students will continue developing
	mathematical proficiency in a developmentally-appropriate progressions of standards.
Graduation Credit:  1 Math	The course emphasizes critical thinking and real world problem solving.
i Mulli	Duration: 2 semesters
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	Prerequisite: Student must have teacher recommendation, passing standardized test scores, and B or above in Algebra I.
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COURSE TITLE:	Algebra II
Course Numbers:	Students in Algebra II will build on their work with linear, quadratic, and exponential
306310 306320	functions and extend their knowledge of functions to include polynomial, rational, and radical functions. Students will solve quadratic equations over the set of complex
333020	numbers and solve exponential equations using the properties of logarithms.
Grade Level: 10-11	Trigonometric functions will be introduced. Students will continue developing
Graduation Credit:	mathematical proficiency in a developmentally-appropriate progression of standards.
1 Math	Students will continue the skill progressions from previous courses.
	Duration: 2 semesters
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COURSE TITLE:	Algebra II Honors
Course Numbers: 30631H 30632H Grade Level: 9-10	Students in Algebra II Honors will build on their work with linear, quadratic, and exponential functions and extend their knowledge of functions to include polynomial, rational, and radical functions. Students will solve quadratic equations over the set of complex numbers and solve exponential equations using the properties of logarithms. Trigonometric functions will be introduced. Students will continue developing
Graduation Credit: 1 Math	mathematical proficiency in a developmentally-appropriate progression of standards. Algebra II Honors is designed to provide students with an in-depth level of instruction at an accelerated pace, covering additional topics. The course emphasizes critical thinking and real world problem solving.
	Duration: 2 semesters  Prerequisite: Student must have teacher recommendation, passing standardized test scores, and B or above in Algebra I.
COURSE TITLE:	AP Pre-Calculus
Course Numbers: 30381A 30382A  Grade Level: 10-12  Graduation Credit: 1 Math	AP Precalculus prepares students for other college-level mathematics and science courses. Through regular practice, students build deep mastery of modeling and functions, and they examine scenarios through multiple representations. The course framework delineates content and skills common to college precalculus courses that are foundational for careers in mathematics, physics, biology, health science, social science, and data science.  Duration: 2 semesters
	Prerequisite: Algebra II or Algebra II Honors. Student must be on track for Calculus AB.
COURSE TITLE:	PreCal/Trig
Course Numbers: 306410 306420	Pre-Calculus/Trig extends students' knowledge of functions and equations (e.g., higher-order functions, exponential, and logarithmic) as well as provide preparation for a calculus.
Grade Level: 10-12	Duration: 2 semesters
Graduation Credit: 1 Math	Prerequisite: Algebra II
COURSE TITLE:	Transition Math for Seniors
Course Numbers: 305210 305220 Grade Level: 12 Graduation Credit: 1 Math	The course prepares students for their entrylevel credit-bearing liberal studies mathematics course at the post-secondary level. Focus is on helping students solidify their quantitative literacy by enhancing numeracy and problem-solving skills as students investigate and use the fundamental concepts of algebra, geometry, and introductory trigonometry.
COURSE TITLE:	College Algebra III Dual Credit
Course Numbers: 30511X 30512X	College Algebra III is worth 3 credits at WVU. This is a semester (half credit) course at JMHS. Marshall County pays for your textbook. Students pay class fees to WVU. This course follows WVU's calendar.
Grade Level: 10-12	Duration: 1 semester
Graduation Credit: ½ Math	Prerequisite: Overall 3.0 average, "C" or better in Algebra I, Geometry, and Algebra II and a passing grade on the WVU placement test.
College Credit: WVU MATH 126	

COURSE TITLE:	College Trigonometry Dual Credit
Course Numbers: 30481X 30482X	Worth 3 credits at WVU. This is a semester (half credit) course at JMHS. Marshall County pays for your textbook. Student pays class fees to WVU. This course follows WVU's calendar.
Grade Level: 10-12	Duration: 1 semester
Graduation Credit: ½ Math	Prerequisite: College Algebra III Dual Credit
College Credit: WVU MATH 128	
COURSE TITLE:	Advanced Mathematical Modeling
Course Numbers: 302510 302520  Grade Level: 11-12  Graduation Credit: 1 Math	Students in Advanced Mathematical Modeling will continue to build upon their algebra and geometry foundations and expand their understanding through further mathematical experiences. The primary focal points of Advanced Mathematical Modeling include the analysis of information using statistical methods and probability, modeling change and mathematical relationships, mathematical decision making in finance, and spatial and geometric modeling for decision-making. As students work with these topics, they continually rely on mathematical processes, including problem-solving techniques, appropriate mathematical language and communication skills, connections within and outside mathematics and reasoning. Students also use multiple representations, technology, applications and modeling and numerical fluency in problem solving contexts.  Duration: 2 semesters
COURSE TITLE:	Applied Statistics
Course Number: 302810 302820  Grade Level: 11-12  Graduation Credit: 1 Math	The Applied Statistics course provides experiences in statistics designed to strengthen students' understanding of the statistical method of inquiry and statistical simulations. Students formulate statistical questions to be answered using data, design and implement a plan to collect the appropriate data, select appropriate graphical and numerical methods for data analysis, and interpret their results to make connections with the initial question. Students use multiple representations, technology, applications and modeling in problem-solving contexts.  Duration: 2 semesters
	Prerequisite: Algebra I and Geometry
COURSE TITLE:	Statistics AP
Course Numbers: 30331A 30332A  Grade Level: 11-12  Graduation Credit: 1 Math	The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.  Duration: 2 semesters  Prerequisite: Algebra II Honors
COURSE TITLE:	AP Calculus AB
Course Numbers: 30311A 30312A Grade Level: 11-12	Differential and integral calculus with application involving polynomial, exponential, logarithmic, and trigonometric functions. Homework is 1 to 1.5 hours per night. The major intent of this course is to guide students to take the Advanced Placement Exam in May, providing them with the opportunity to earn three hours college credit.  Duration: 2 semesters
Graduation Credit: 1 Math	Prerequisite: Pre-Cal/Trig Honors

COURSE TITLE:	AP Calculus BC
Course Numbers:	This course is an extension of the topics covered in Calculus AB, including arc-length,
30321A 30322A	additional techniques of integration, improper integrals, and indeterminate forms. A thorough treatment is given to "infinite series," including Taylor, Maclaurin, and Power
30322A	series. Parametric equations, polar coordinates, vector-valued functions, along with
Grade Level: 11-12	advanced topics on exponential growth and decay are also studied. Homework required is 1to 1.5 hours per night. The major intent of this course is to guide students to
Graduation Credit:	take the Advanced Placement Exam in May, providing them with the opportunity to
1 Math	earn up to six hours college credit.
	Duration: 2 semesters
	Prerequisite: AP Calculus AB

## **SCIENCE**

COURSE TITLE:	Earth and Space Science
Course Numbers: 620110 620120 Grade Level: 9 Graduation Credit: 1 Science	A required lab science 9th grade level course in which students will focus on 5 major topics: Space Systems, History of Earth, Earth's Systems, Weather and Climate, and Human Sustainability. There is an emphasis on using engineering and technology concepts to design solutions to challenges facing human society. There is a focus on several scientific practices which include developing and using models, planning and conducting investigations, analyzing and interpreting data, using mathematical and computational thinking, constructing explanations and designing solutions. Students will engage in active inquires, investigations, and hands-on activities as they develop and demonstrate conceptual understandings and research and laboratory skills described in the objectives.
	Duration: 2 semesters
COURSE TITLE:	Earth and Space Science Honors
Course Numbers: 62011H 62012H  Grade Level: 9  Graduation Credit: 1 Science	A required lab science 9th grade level course in which students will focus on 5 major topics: Space Systems, History of Earth, Earth's Systems, Weather and Climate, and Human Sustainability. There is an emphasis on using engineering and technology concepts to design solutions to challenges facing human society. There is a focus on several scientific practices which include developing and using models, planning and conducting investigations, analyzing and interpreting data, using mathematical and computational thinking, constructing explanations and designing solutions. Students will engage in active inquires, investigations, and hands-on activities as they develop and demonstrate conceptual understandings and research and laboratory skills described in the objectives. All topics studied in Earth and Space science will be examined in more depth in the honors course.  Duration: 2 semesters
COURSE TITLE:	Biology
Course Numbers: 602110 602120	A required lab science 10th grade level course that introduces the student to the life sciences. Topics covered include focus on five life science topics: Structure and Function, Inheritance and Variation of Traits, Matter and Energy in Organisms and Ecosystems, Interdependent Relationships in Ecosystems, and Natural Selection and Evolution. There is
Grade Level: 10  Graduation Credit: 1 Science	an emphasis on using engineering and technology concepts to design solutions to challenges facing human society. Students will engage in active inquiries, investigations, and hands-on activities as they develop and demonstrate conceptual understandings and research and laboratory skills described in the objectives.
	Duration: 2 semesters

COURSE TITLE:	Biology Honors
Course Numbers: 60211H 60212H Grade Level: 10 Graduation Credit: 1 Science	A required lab science 10th grade level course (taken in lieu of Biology) that introduces the student to the life sciences. Topics covered include focus on five life science topics: Structure and Function, Inheritance and Variation of Traits, Matter and Energy in Organisms and Ecosystems, Interdependent Relationships in Ecosystems, and Natural Selection and Evolution. There is an emphasis on using engineering and technology concepts to design solutions to challenges facing human society. There is a focus on several scientific practices which include developing and using models, planning and conducting investigations, analyzing and interpreting data, using mathematical and computational thinking, constructing explanations and designing solutions. Students will engage in active inquiries, investigations, and hands-on activities as they develop and demonstrate conceptual understandings and research and laboratory skills described in the objectives. All topics studied in Biology will be examined in more depth in the honors course. Formal lab report writing will be expected and a focus in the course as well.  Duration: 2 semesters  Prerequisite: Students must have teacher recommendation.
COURSE TITLE:	Biology AP
Course Numbers: 61211A 61212A  Grade Level: 11-12  Graduation Credit: 1 Science	A highly intensive course that is tailored to the AP Biology Curriculum Framework that focuses on the major concepts in biology and connections. The course is designed so that students develop a deep conceptual understanding, as well an opportunity to integrate biological knowledge and science practices through inquiry-based activities and laboratory investigations without having to teach a textbook from cover to cover. A college text will be used in order to prepare students for success on the AP exam. Students are encouraged to take the Advanced Placement Examination, which may qualify them to earn college credit for their first year college biology course. Students who intend to pursue a medical/science career path OR who have excelled in academics and want to test out of freshman Biology in college should strongly consider taking this course. Courses that would be helpful to have taken or be taken concurrently, but are not required include: Chemistry I and Microbiology. Study time averages 1 hour per night. A summer assignment will be given in order to reduce the course-load throughout the year and is expected to be completed on time. A successful student in this course would demonstrate being very self-disciplined, hard-working, prepared, timely and on-task at all times.  Duration: 2 semesters  Prerequisite: Successful completion (A/B average) of Biology and appropriate math course. Students must have teacher recommendation. Chemistry strongly recommended.
COURSE TITLE:	Chemistry I
Course Numbers: 603110 603120 Grade Level: 10-12 Graduation Credit: 1 Science	Chemistry I is intended to provide students with a basic background in chemistry and teach problem-solving techniques. Students will perform experiments relating to the covered topics. Students taking Chemistry 1 are encouraged to take Chemistry 2. This course is designed to prepare a student for college chemistry.  Duration: 2 semesters  Prerequisite: Successful completion of Algebra I.
COURSE TITLE: Course Numbers: 60311H 60312H Grade Level: 10-12	Chemistry I Honors  Chemistry Honors is the first year of AP Chemistry and uses a college text to study basic concepts, atomic structure, energy changes in reactions and chemical bonding. This class is difficult and requires a serious time commitment from the student in order to be successful. Well-developed problem-solving skills are essential.
Graduation Credit: 1 Science	Duration: 2 semesters  Prerequisite: Students must have teacher recommendation.

COURSE TITLE:	Chemistry II
Course Numbers: 603310 603320	Chemistry II is a continuation of Chemistry 1. This course covers reaction rates, equilibrium, acids and bases, and electrochemistry and places emphasis on laboratory skills.
Grade Level: 11-12	Duration: 2 semesters  Prerequisite: Maintain at least a "C" average in Chemistry I.
Graduation Credit: 1 Science	Transquisire. Maintain artisasi a C average in Sherrish, i.
COURSE TITLE:	Chemistry AP
Course Numbers: 63211A 63212A	This course uses a college text and is designed to prepare students for the AP Chemistry Exam and earn college credit for a first-year college chemistry course. Completion of ALL summer assignments by due date is required.
Grade Level: 11-12	Duration: 2 semesters
Graduation Credit: 1 Science	Prerequisite: Successful completion of Chemistry I Honors. Students must have teacher recommendation.
COURSE TITLE:	Physics I
Course Numbers: 604110 604120	Physics is designed for those planning careers in science, physical therapy, engineering, dentistry, pharmacology, etc. This course prepares students for college-level physics.
Grade Level: 11-12	Duration: 2 semesters
Graduation Credit: 1 Science	Prerequisite: Successful completion of Algebra I and Geometry.
COURSE TITLE:	Physics I AP
Course Numbers: 63261A 63262A	This course 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; and mechanical waves and sound. It will also introduce electric circuits.
Grade Level: 11-12	Duration: 2 semesters
Graduation Credit: 1 Science	Prerequisite: Successful completion of Algebra I and Geometry.
COURSE TITLE:	Physics 2 AP
Course Numbers: 63271A 63272A	This course is the equivalent to a second-semester college course in algebra-based physics. The course covers fluid mechanics, thermodynamics, electricity and magnetism, optics, and atomic and nuclear physics.
Grade Level: 12	Duration: 2 semesters
Graduation Credit: 1 Science	Prerequisite: Successful completion of Algebra I and Geometry.
COURSE TITLE:	Physical Science
Course Numbers: 601110 601120	This course is a general lab science that explores classification of matter, elements and the Periodic Table, chemical bonds, and chemical reactions during the first semester. The second semester focuses on motion/Newton's Laws, electricity, magnetism, sound and light waves, and energy. This is a third course option for a lab science.
Grade Level: 10-12	Duration 2 semesters
Graduation Credit: 1 Science	

COURSE TITLE:	Environmental Science
Course Numbers:	This course builds on previous knowledge of chemical, physical, biological, and geological
631210	processes and focuses on the natural world. Students will develop an understanding of
631220	how humans affect and are affected by the environment. Students must be trustworthy,
	independent workers, and will be required to go outside to test the stream behind the
Grade Level: 11-12	school, and identify native trees. Students will also use GIS to study watersheds.
Graduation Credit: 1 Science	Duration: 2 semesters
	Prerequisite: Algebra I, Geometry, Chemistry is recommended.
COURSE TITLE:	Forensic Science
Course Numbers:	This class is designed for students who desire a hands-on science course that integrates
604410	physics, chemistry, and biology. Students will use problem-solving skills, laboratory science,
604420	and content knowledge of all fields of science to solve hypothetical crimes. <u>This course</u>
Canada I ayada 11 10	can be counted as one of the three lab sciences required for graduation, but students
Grade Level: 11-12	must check with individual colleges to be sure it will be accepted.
Graduation Credit: 1 Science	Duration: 1 semester
	Prerequisite: Successful completion of Earth Science 9, Biology, and Geometry with a "C" average.
COURSE TITLE:	Human Anatomy and Physiology Honors
Course Numbers:	This course is designed for students who plan to enter careers that require extensive
61031H	knowledge of human anatomy and physiology, such as those expecting to continue in a
61032H	medical or science-related career path. Standards are addressed in greater depth and
	with high levels of expectation. Students will investigate the structure and function of the
Grade Level: 12	human body and with an emphasis on laboratory work. This course studies the structure
Graduation Credit:	and function of the human body and the mechanisms for maintaining homeostasis within it. It includes the study of cells, tissues and various body systems (skeletal, cardiovascular,
1 Science	lymphatic, muscular, respiratory, digestive, and others). It also includes the concepts of
	development, metabolism, and fluid and electrolyte balance. This course uses dissection as
	an instructional activity.
	Duration: 2 semesters
	Prerequisite: Successful completion (B/C average) of Microbiology and/or Chemistry is
	recommended.
COURSE TITLE:	Microbiology Dual Credit
Course Numbers:	This course studies microorganisms and genetics. It focuses on developing good
77251X	microscope/lab skills and techniques by surveying various microorganisms. Students will
77252X	complete a genetic component, including a Drosophila project, upon taking the course.
	This course is intended for students expecting to pursue a medical career path or a degree
Crade Level: 11 10	in science.
Grade Level: 11-12	Duration: 2 semesters
Graduation Credit:	25.3.3 25011051010
1 Science	Prerequisite: "B" average in Biology
College: WILL Microbioles:	
College: WLU Microbiology	
COURSE TITLE:	Microbiology
Course Numbers:	This course studies microorganisms and genetics. It focuses on developing good
772510	microscope/lab skills and techniques by surveying various microorganisms. Students will
772520	complete a genetic component, including a Drosophila project, upon taking the course.
	This course is intended for students expecting to pursue a medical career path or a degree
Consider Levis In 11 12	in science.
Grade Level: 11-12	Duration: 2 competers
Graduation Credit:	Duration: 2 semesters
1 Science	Prerequisite: "B" average in Biology
	Troisquisito. B arolago in biology
College: WLU Microbiology	

COURSE TITLE:	Zoology (Elective Credit)
Course Numbers: 627010 627020  Grade Level: 11-12  Graduation Credit: 1 Elective	The Zoology elective builds on the biology core with added emphasis on animal taxa, basic body plans, symmetry, and behavior. This course encourages critical thinking, use of the scientific method, integration of technology, and application of knowledge and skills learned. A variety of learning opportunities will be utilized, including lecture/discussion, reading in the content area, written assignments, and laboratory exercises. Dissections are REQUIRED. This class is intended for students who plan to attend a 4-year college. This course will not count as one of the three lab sciences required for graduation.  Duration: 2 semesters  Prerequisite: Successful completion of Physical Science and Biology
COURSE TITLE:	Physical Geology I (Elective Credit)
Course Numbers: 626110	This is an introductory course that discusses Earth materials and the processes that shape the Earth. Topics covered include minerals, rocks, volcanoes, earthquakes, plate tectonics,
Grade Level: 10 – 12	geologic time, water resources, glaciation, structural geology, and energy and mineral resources. This class will include hands-on projects involving rocks and minerals, geologic maps, faults and folds, and dating of geologic features and events. This is a continuation of
Graduation Credit: ½ Elective	concepts learned in Earth & Space Science.
	Duration: 1 semester (Fall Semester)
	Prerequisite: C average or above in Earth & Space Science
COURSE TITLE:	Physical Geology II (Elective Credit)
Course Numbers: 626120  Grade Level: 10 – 12  Graduation Credit: ½ Elective	This course is a continuation of concepts learned in Physical Geology I. This is an introductory course that discusses Earth materials and the processes that shape the Earth. Topics covered include minerals, rocks, volcanoes, earthquakes, plate tectonics, geologic time, water resources, glaciation, structural geology, and energy and mineral resources. This class will include hands-on projects involving rocks and minerals, geologic maps, faults and folds, and dating of geologic features and events.  Duration: 1 semester (Spring semester)
	Prerequisite: C average or above in Earth & Space Science
COURSE TITLE:	Dental Assisting I
Course Numbers: 074000  Grade Level: 9 – 12  Graduation Credit: ½ Elective	This course provides introduction to the dental assisting profession while preparing the student with foundational dental assisting knowledge and entry level skill. Students will obtain knowledge in communication, safety, legal and ethics, and teamwork skills to prepare for employment as dental assistants. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction
	Duration: 1 semester

# **SOCIAL STUDIES**

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COURSE TITLE:	World Studies
Course Numbers: 701010 701020	The course emphasizes the historic economic, geographic, political, and social structure of various cultural regions of the world from the dawn of civilization to the 20 <sup>th</sup> Century. Special attention is given to the formation and evolution of societies into complex political and economic systems.
Grade Level: 9	Duration: 2 semesters
Graduation Credit: 1 Social Studies	
COURSE TITLE:	World Studies Honors
Course Numbers:	The course emphasizes the historic, economic, geographic, political, and social
70101H 70102H	structure of various cultural regions of the world from the dawn of civilization to the 20 <sup>th</sup> Century. Special attention is given to the formation and evolution of societies into
Grade Level: 9	complex political and economic systems. The Honors course requires well-developed reading, writing, and research skills. Students should be highly motivated and are
Graduation Credit:	expected to participate in class.
1 Social Studies	Duration: 2 semesters
COURSE TITLE:	Human Geography AP
Course Numbers:	The purpose of the AP course in Human Geography is to introduce students to the
70421A	systematic study of patterns and processes that have shaped human understanding,
70422A	use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences.
Grade Level: 9	They also learn about the methods and tools geographers use in their science and practice.
Graduation Credit: 1 Social Studies	Duration: 2 semesters
	Pre-Requisite: Teacher recommendation necessary.
COURSE TITLE:	U.S. Studies
Course Numbers:	This course studies the forming of the United States from the Pre-Columbian civilizations
700910 700920	to its transformation as a dominant political and economic influence in the world at the beginning of the 20th Century. Special emphasis is placed on the evolution of the
700720	Constitution, and how the challenges of settling expansive and widely-differing
Grade Level: 10	environments were met by a diverse population.
Graduation Credit: 1 Social Studies	Duration: 2 semesters
COURSE TITLE:	U.S. Studies Comprehensive  This course experience the history and explution of the United Sates and the role of
Course Numbers: 701210 701220	This course examines the history and evolution of the United Sates and the role of participatory democracy in the development of a rapidly changing technological society. This study of the United States and its constitutional government is an examination of the formative years from the colonization of what would be the United
Grade Level: 10-11	States to present day. Students will engage in critical thinking and problem-solving skills as they learn and work with factual historical content, geography, civics, economics
Graduation Credit: 1 Social Studies	and other social studies concept.
2.2.2	Duration: 2 semesters

COURSE TITLE:	European History AP
Course Numbers: 70451A 70452A  Grade Level: 10-12  Graduation Credit: 1 Social Studies	The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. In addition to providing a basic narrative of events and movements, the goals of AP European History are to develop (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing. This course also develops context for understanding the expansion of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse.
	Duration: 2 semesters
	Prerequisite: World Studies Honors is recommended.
COURSE TITLE:	Contemporary Studies
Course Numbers: 701110 701120	The focus of this course is on America and its role in the world from 1914 to the present. Themes of study include American reform movements, cultural values, economic and technological development, geography and environment, diversity, conflict, democratic principles, and global interdependency.
Grade Level: 11	Duration: 2 semester
Graduation Credit: 1 Social Studies	
COURSE TITLE:	U.S. History AP
Course Number: 70461A 70462A Grade Level: 11	The course will cover U.S. history from the pre-Columbian era to the present. Students will examine American political institutions and behavior, public policy, social and economic change, diplomacy and international relations, and cultural and intellectual developments. The AP course uses a college-level text and requires well-developed reading, writing, and research skills. Students should be highly motivated and are
Graduation Credit:	expected to participate in class. The course requires a minimum of 5 hours of homework per week.
1 Social Studies	Duration: 2 semesters
	Prerequisite: "A" or "B" average in Social Studies and teacher/counselor recommendation.
COURSE TITLE:	Government & Politics: Comparative AP
Course Numbers: 70431A 70432A  Grade Level: 11-12  Graduation Credit:	In this course, students develop an understanding of fundamental concepts used by political scientists to study the processes and outcomes of politics in China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. Students will learn to compare and contrast the political institutions of those nations as well as analyze and interpret relevant basic data. This is an expansion of what is learned in U.S. Government and Politics AP, although highly motivated juniors are encouraged to take the class as well. Course may require an average of 3 hours of homework per week.
1 Social Studies	Duration: 2 semesters
	Prerequisite: "A" or "B" average in Social Studies and teacher recommendation.
COURSE TITLE:	Government & Politics: U.S. AP
Course Numbers: 70441A 70442A  Grade Level: 11-12  Graduation Credit: 1 Social Studies	This advanced course examines constitutional underpinnings of the U.S. government, political beliefs and behaviors, political parties, interest groups and mass media, institutions of national government, public policy, civil rights, and civil liberties. Fundamental economic principles and personal finance issues are included (as required by the state). The AP course is taught with college-level texts and requires well-developed reading, writing, and research skills. Students should be highly motivated and are expected to participate in class. Course requires an average of 3-5 hours of homework per week.
	Duration: 2 semesters
	Prerequisite: Should be taken along with AP English Language. "A" or "B" average in social studies recommended.

COURSE TITLE:	Civics for the Next Generation
Course Numbers:	In this course, students develop the knowledge, skills and dispositions to engage in civic
703110 703120	life. The two broad areas of study are government and politics, civic life, and personal finance. Special emphasis is placed on analysis of the personal, political and
Grade Level: 12	economic roles of responsible citizens in American democracy.
Craduation Cradity	Duration: 2 semesters
Graduation Credit: 1 Social Studies	
COURSE TITLE:	Civics for the Next Generation Dual Credit
Course Numbers: 70311X 70312X	This class will cover the historical background of American government; the Constitution; political processes; structure and procedures of government. Additionally, this course will cover the interrelationship of national, state, and local governments; problems and functions of the modern state; revision, reapportionment, and finance.
Grade Level: 12	Duration: 2 semesters
Graduation Credit: 1 Social Studies	
College: WLU POLS 201	
COURSE TITLE:	Psychology AP
Course Numbers: 70471A 70472A  Grade Level: 10-12  Graduation Credit: 1 Social Studies  COURSE TITLE: Course Numbers: 732110 732120  Grade Level: 11-12  Graduation Credit: 1 Social Studies	This more demanding course picks up where Psychology I ends. Units of the second semester include sensation and perception, personality, cognition, testing and individual differences, abnormal psychology, treatment of psychological disorders, and social psychology. The pace of the course is faster, with more vocabulary and more writing assignments. Students are required to be highly motivated and enthusiastic participants in class. The course requires a minimum of 5 hours of study time per week.  Duration: 2 semesters  Prerequisite: "A" or "B" average in Social Studies and Science, or teacher/counselor recommendation.  Psychology  This course is considered a third course core credit for students who have taken US Comprehensive (7012). The course covers the history and theories of psychology, research methods, biological bases of behavior, states of consciousness, learning, memory, motivation and emotion, and developmental psychology. Students will develop the reading, studying, and note-taking skills required for success in college classes. The tests are challenging and will require 3 to 5 hours of study time per week. Students are required to be enthusiastic participants in class.
1 Social Studies	Duration: 2 semester  Prerequisite: "A" or "B" average in Social Studies is strongly recommended.
COURSE TITLE:	Sociology
Course Numbers: 734110 734120 Grade Level: 11-12 Graduation Credit:	This course is considered a third course core credit for students who have taken US Comprehensive (7012). This course is designed to introduce students to the basic principles of sociology. In addition, research into the social issues of our times is stressed. The Sociology course is taught with a college-level text and requires well-developed reading, writing, and research skills. Students should expect to spend approximately 5 hours per week on outside reading.
1 Social Studies	Duration: 2 semester
	Prerequisite: "A" or "B" average in Social Studies is strongly recommended.

### **SOCIAL STUDIES ELECTIVES**

COURSE TITLE:	History of the Holocaust
Course Numbers: 714900  Grade Level: 11-12	This course is a detailed examination of the programs of persecution and mass murder carried out by the Nazi German regime between 1917 and 1945. Several themes will be prominent throughout the semester. The class will examine and try understand when
Grade Level: 11-12	and how policies of exclusion can be transformed into a systematic program of murder and will focus on the place of the Holocaust in European, and not only German, history.
Graduation Credit: ½ Elective	Third, the class will shape an understanding of how eyewitness memories, historical research, and media representations all shape our contemporary understanding of what the Holocaust was and why it is important today. The mass murder of European Jews will be the central focus of this course. The class will, however, also discuss programs of discrimination and murder carried out against other groups (e.g. Roma, the disabled, and Poles) and attempt to place these phenomena within the context of Nazi German and other nations' racial policies.
	Duration: 1 semester
COURSE TITLE:	Sports History
Course Numbers: 733200	This semester class covers material and offers discussion about the origins and history of specific sports from the ancient Greeks through modern times. Special topics related to sports, such as sportsmanship, racial integration, Title IX legislation, and steroids will be
Grade Level: 10-12	discussed. Tests, book reviews, and research papers are required. Web research will be incorporated, as well as related videos.
Graduation Credit: ½ Elective	Duration: 1 semester
COURSE TITLE:	Pop Culture I & II
Course Numbers: 724310 724320	Rock and Roll: An American Story is an online resource that focuses on different eras of American popular music and will be employed throughout the course. Students will examine the roots of Rock and Roll and its foundation in Southern Blues, Jazz, and Country music. In addition, a variety of film genres that have had a significant impact
Grade Level: 11-12	on popular culture will be reviewed and analyzed. Students will utilize numerous forms of technology, create music videos, and research movements that have affected
Graduation Credit: ½ Elective	trends from television to clothing.
	Duration: 1 semester

### **HEALTH/PHYSICAL EDUCATION**

COURSE TITLE:	Health 9 (online option)
Course Numbers: 690901	Health 9 is designed to explore the issues that currently are important to the daily lives of students. Main topics emphasized include leading a healthy life, self-esteem, stress management, drug, alcohol and tobacco abuse, nutrition and physical fitness.
Grade Level: 9-12	
	Duration: 1 semester
Graduation Credit: ½ Health	

COURSE TITLE:	Health 10 (online option)
Course Numbers: 690902	Health 10 is designed to teach ways to improve and prolong mental, physical and social well-being through a wellness and holistic approach. Main topics emphasized; you are responsible for your own health, mental and social health, family and
Grade Level: 9-12	interpersonal relationships, marriage, building relationships, sexually transmitted diseases, stress management, drug, alcohol, and tobacco abuse. This course also has
Graduation Credit: ½ Health	an online version that is orchestrated through John Marshall if the course will not fit into a student's PEP plan or schedule.
	Duration: 1 semester
	Prerequisite: Health 9
COURSE TITLE:	PE High School 9
Course Numbers: 660901 Grade Level: 9	This is a semester course designed to give students an overview of various lifetime sports. All students MUST participate and complete the Fitness Gram Physical Education Fitness Test mandated by the State of West Virginia. Grade is based on participation in class, dressing for class in approved gym attire, behavior and sportsmanship.
Graduation Credit:	Duration: 1 semester
½ Physical Education	Prerequisite: All incoming freshmen will be scheduled into this course.
COURSE TITLE:	PE High School 10
Course Numbers: 660902	This is a semester course designed to give students an overview of various lifetime sports.  All students MUST participate and complete the Fitness Gram Physical Education Fitness  Test mandated by the State of West Virginia. Grade is based on participation in class,
Grade Level: 10	dressing for class in approved gym attire, behavior and sportsmanship.
Graduation Credit: ½ Physical Education	Duration: 1 semester  Prerequisite: All sophomores will be scheduled into this course.
COURSE TITLE:	Extracurricular Inter-Scholastic PE
Course Numbers: 794800  Grade Level: 9-10	If a student plays an SSAC sanctioned sport, he or she can receive credit for 1 semester of PE per sports season. The coach must sign paperwork verifying the student was at all necessary practices and completed the entire season. This is a non-graded course that is not included in GPA.
Graduation Credit: ½ Physical Education	Duration: 1 semester
COURSE TITLE:	PE High School 10 – Walking/Joaging
COURSE TITLE: Course Number: 6609	PE High School 10 – Walking/Jogging  Walking/Jogging – This is a semester course designed to give students the flexibility of developing a personal cardio vascular fitness program. Students will use pedometers to keep track of steps and distance. Various other techniques will be used throughout the
Course Number:	Walking/Jogging – This is a semester course designed to give students the flexibility of
Course Number: 6609	Walking/Jogging – This is a semester course designed to give students the flexibility of developing a personal cardio vascular fitness program. Students will use pedometers to keep track of steps and distance. Various other techniques will be used throughout the
Course Number: 6609 Grade Level: 10-12 Graduation Credit:	Walking/Jogging – This is a semester course designed to give students the flexibility of developing a personal cardio vascular fitness program. Students will use pedometers to keep track of steps and distance. Various other techniques will be used throughout the semester.  Duration: 1 semester  Individual Sports/Fitness Conditioning
Course Number: 6609 Grade Level: 10-12 Graduation Credit: ½ Physical Education	Walking/Jogging – This is a semester course designed to give students the flexibility of developing a personal cardio vascular fitness program. Students will use pedometers to keep track of steps and distance. Various other techniques will be used throughout the semester.  Duration: 1 semester  Individual Sports/Fitness Conditioning  This class is designed to keep student athletes or non-athletes in good physical condition by participating in various cardio workouts. Areas of concentration include: speed, agility, endurance and flexibility.
Course Number: 6609 Grade Level: 10-12 Graduation Credit: ½ Physical Education  COURSE TITLE: Course Numbers: 672510 672520	Walking/Jogging – This is a semester course designed to give students the flexibility of developing a personal cardio vascular fitness program. Students will use pedometers to keep track of steps and distance. Various other techniques will be used throughout the semester.  Duration: 1 semester  Individual Sports/Fitness Conditioning  This class is designed to keep student athletes or non-athletes in good physical condition by participating in various cardio workouts. Areas of concentration include:

COURSE TITLE:	Recreational Sport/Advanced Physical Education
Course Numbers: 674100	Class is designed for students who enjoy participating in individual and team sports, recreational activities, and outdoor sports. Grade is based on participation, dressing in approved gym clothes, behavior and sportsmanship.
Grade Level: 11-12	
(Seniors given priority)	Duration: 1 semester
Graduation Credit: ½ Physical Education	Prerequisite: Must have passed PE High School 9 and PE High School 10.
COURSE TITLE:	Weight Training
Course Numbers: 676510 676520	This course will allow the student to create an individual weight lifting program. Daily participation, dressing in approved gym clothes, and attendance is the basis of grades.
	Duration: 1 semester or 2 semesters
Grade Level: 10-12	
Graduation Credit: 1 Physical Education	Prerequisite: Must have passed PE High School 9.
COURSE TITLE:	Life Fitness Education
Course Numbers: 673300  Grade Level: 9-12	This class is designed for students that have a desire to learn about the benefits and importance of exercise, how to properly exercise, proper nutrition, and about general wellness. Students will be expected to do class work as well as participation in various exercises and activities.
Grade Level. 7-12	exercises and activities.
Graduation Credit: ½ Physical Education	Duration: 1 semester

### **HEALTH/PHYSICAL EDUCATION ELECTIVES**

COURSE TITLE:	Driver's Education
Course Numbers: 681100	This course is designed to teach and encourage safe driving habits and to develop defensive driving techniques as a lifelong principle for safe vehicle operation.  Enrollment is limited, so preference will be made based upon grade level (seniors,
Grade Level: 10-12	juniors, and then sophomores). A Learner's Permit is NOT required.
Graduation Credit: ½ Elective	Duration: 1 semester
COURSE TITLE:	Sports Medicine I & II
Course Numbers: 693310	This course is designed to familiarize the student with the field of Athletic Training. It will allow students to develop an awareness of the current and proper techniques for the
693320	prevention, care, and rehabilitation of athletic injuries.
693410	
693420	Duration: 2 semesters
Grade Level: 11-12	
Graduation Credit:	
1 Elective	

# FINE ARTS (PERFORMING and VISUAL) COURSES

	Vocal and Instrumental Music Courses
COURSE TITLE:	Band I, II, III, IV
Course Numbers: 361110 361120 361210 361220 361310 361320 361410 361420  Grade Level: 9-12  Graduation Credit: 1 Fine Arts/Elective	Students will prepare selected marching and concert band music for performances and festivals. Students are required to be enrolled in band in order to audition for All-State band or to participate in Solo-N-Ensemble or Regional Honors Band. Practice outside of school hours may be required. Students will be required to attend all scheduled rehearsals and performances during school and outside curricular time. To move on to the next sequenced band class, a student must pass the previous course. Honors credit is available through specific criteria provided by Mrs. Filben.  Duration: 2 semesters
COURCE TITLE.	Shoot Dayson Barnel
COURSE TITLE: Course Numbers: 374210 374220 Grade Level: 9-12	Steel Drum Band  Open to any band student or with permission from Mrs. Filben. Students will be required to attend all scheduled rehearsals and performances during school and outside curricular time.  Duration: 2 semesters
Graduation Credit: 1 Fine Arts/Elective	Dordhori. 2 serilesiers
COURSE TITLE:	Chorus I, II, III, IV
Course Numbers: 362110 362120 362210 362220 362310 362320 362410 362420	Chorus I is open to any interested student. The course develops individual vocal techniques and basic music concepts. Class participation and performances are part of the grade. This group will combine to perform with the concert choir. To continue on to the next course level, a student must pass the previous course.  Duration: 2 semesters
Grade Level: 9-12 Graduation Credit:	
1 Fine Arts/Elective	Monarch Choir
COURSE TITLE:  Course Numbers: 377010 377020 377110 377120 377210 377220 377310 377320  Grade Level: 9-12	Students will study advanced choral literature and technique. Students should have prior choral experience. Because class participation and performances are part of the grade, students with questionable attendance records may not be allowed to take this class.  Duration: 2 semesters  Prerequisite: By Audition Only
Graduation Credit: 1 Fine Arts/Elective	

COURSE TITLE:	Music Theory/Music Appreciation
Course Numbers:	Students will be instructed in the fundamentals of written music theory. The course is
375600 374600	designed to prepare instrumental, vocal, piano, and string students for college theory.
Grade Level: 9-12	Duration: 1 semester
Graduation Credit: ½ Fine Arts/Elective	
COURSE TITLE:	Piano I, II, III, IV
Course Numbers: 368100 368200 368300 368400	This course offers beginning instruction in piano for the novice to instruction for advanced Piano students. Students must pass each level to advance to the next level.  Duration: 1 semester
Grade Level: 9-12	
Graduation Credit: ½ Fine Arts/Elective	
COURSE TITLE:	Orchestra I, II, III, IV
Course Numbers: 376400 376500 377600 377700	This class will be taught during the school day to students who have experience playing violin, viola, cello, or bass. Students will be required to attend all scheduled rehearsals and performances during school and outside curricular time. Students must pass each level to advance to the next level.  Honors credit is available through specific criteria provided by Mr. Jones.
Grade Level: 9-12	Duration: 2 semesters
Graduation Credit: 1 Fine Arts/Elective	
COURSE TITLE:	Guitar I
Course Numbers: 3726 Grade Level: 9-12	In Guitar I, students will begin a basic study of guitar. Students will learn the correct wrist, hand, and body positions, block and broken chord patterns, cadences using I, IV, and V chords, and simple pieces. Sight-reading rhythms and notes in treble clef will be practiced and evaluation skills will be developed.
Graduation Credit: 1/2 Fine Arts/Elective	Duration: 1 semester
	Visual Arts
COURSE TITLE:	Art I
Course Numbers: 321110 321120 Grade Level: 9-12	Students produce two-dimensional and three-dimensional artworks using a variety of media, techniques, technology, and processes. They use verbal and written formats to relate art skills and strategies to other disciplines, various cultures, major art movements and historical periods. Students will practice responsible workplace skills and review career options and study the concept of art criticism.
Graduation Credit: 1 Fine Arts/Elective	Duration: 2 semesters
COURSE TITLE:	Art II
Course Numbers: 321210 321220	General Art 2 is a continuation of the concepts presented in General Art I with a focus on developing greater skill in handling various media, and the expression of individual ideas through artworks. Artistic concepts will be discussed such as the use of themes and personal motifs and symbols in artworks.
Grade Level: 10-12	Duration: 2 semesters
Graduation Credit: 1 Fine Arts/Elective	Prerequisite: Pass both semesters of Art I

COURSE TITLE:	Art III
Course Numbers: 321310 321320	General Art 3 builds on previous content standards with a more in-depth approach. Students analyze art from various cultures visually, verbally, and in written form. They study art history, criticism, and aesthetics in relation to individually selected artworks and develop a personal philosophy of art. The students develop personal portfolios which
Grade Level: 11-12	include products and critiques.
Graduation Credit: 1 Fine Arts/Elective	Duration: 2 semesters
	Prerequisite: Successfully complete Art I and Art II
COURSE TITLE:	Art IV
Course Numbers:	In General Art 4 students develop and clarify their philosophy of art and art making
321410 321420 Grade Level: 12	through in-depth explorations with media, techniques and processes. Students expand and refine a portfolio reflecting a broad base of knowledge in the arts. Students focus on value and drawing skill and the necessary steps to achieve a portfolio for college.
Graduation Credit:	Duration: 2 semesters
1 Fine Arts/Elective	Prerequisite: Successfully complete Art I, Art II and Art III or be a senior planning on majoring in Art in college.
COURSE TITLE:	AP 2-D Art and Design
Course Numbers:	AP 2-D Art and Design is an introductory college-level two-dimensional design course.
32231A 32232A	Students refine and apply 2-D skills to ideas they develop throughout the course. In AP 2-D Art and Design you'll develop skills using materials and processes such as graphic design, photography, collage, printmaking, fashion illustration, and others. As the
Grade Level: 10-112	course concludes you'll submit a portfolio that demonstrates your ability to practice, experiment, and revise your own work while communicating your ideas about art and
Graduation Credit: 1 Fine Arts/Elective	design.  Duration: 2 semesters
	Prerequisite: Art I
	Trelequisite. All
COURSE TITLE:	AP 3-D Art and Design
Course Numbers: 32241A 32242A Grade Level: 10-12	AP 3-D Art and Design is an introductory college-level three-dimensional design course. Students refine and apply 3-D skills to ideas they develop throughout the course. In AP 3-D Art and Design you'll learn how to create art in different disciplines such as sculpture, architectural rendering, metal work, ceramics, and others. At the end of the course you'll submit a portfolio that demonstrates your knowledge of art skills using
Graduation Credit: 1 Fine Arts/Elective	three-dimensional materials.  Duration: 2 semesters
1 1 11 10 7 11 13 / LIOCH 4 G	Prerequisite: Art I
COURSE TITLE:	Graphic Arts
Course Numbers: 331310 331320	This studio art course is an introduction to the world of Graphic Design. The course content will include the development of design skills, technical use of the material, and concept development through verbal and visual methods. Photoshop will be included in the Graphic program.
Grade Level: 10-12	Duration: 2 semesters
Graduation Credit: 1 Fine Arts/Elective	

COURSE TITLE:	Ceramics/Pottery I/II
Course Numbers: 330710 330720 330810 330820 Grade Level: 11-12	This is a studio art class that introduces the foundations of hand-built and wheel-thrown pottery. Students will explore in depth, the properties and terminology associated with clay, various forming and decorating techniques and the history of clay in various cultures. Class evaluation includes hand-built and wheel thrown projects, class participation, textbook readings, essay tests, and written assignments. Students will get dirty from the clay and fingernails must be kept short. Consistent attendance and extra work outside of the regular class hours are important for success in this class. Student must be able to work independently.
Graduation Credit:	Duration: 2 semesters
1 Fine Arts/Elective	Prerequisite: Art 1
COURE TITLE:	Sculpture
Course Numbers: 333710 333720	This studio course focuses on hands on learning with a variety of materials and properties used to create 3-dimensional art works, which may include, cardboard, clay and glazes, paper and metal work. Students will explore and understand the elements and principles of design as they apply them to 3-dimensional artistic expression.
Grade Level: 10-12	Duration: 2 semesters
Graduation Credit:  1 Fine Arts/Elective	Pre-requisite: Art 1
	Performing Arts
COURSE TITLE:	Theatre I/Theatre II
Course Numbers: 380110 380220 Grade Level: 10-12	Students interested in pursuing oral communications, TV, radio, film, public relations, or theatre will find this course an interesting introduction. Content includes the structure, varieties, history and evaluation of drama, voice & diction, improvisation, and mime, and gaining self-confidence.  Duration: 2 semesters
Graduation Credit: 1 Fine Arts/Elective	
COURSE TITLE:	Theatre/Stagecraft
Course Numbers: 385910 385920	In Theatre/Stagecraft students will learn staging, lighting, and technical aspects of theatre. A large part of this course is focused on set construction.
Grade Level: 9-12	Duration: 2 semesters
Graduation Credit: 1 Fine Arts/Elective	

# **FOREIGN LANGUAGE**

COURSE TITLE:	Spanish I
Course Numbers: 566110 566120	Students develop oral and written communication skills with an emphasis on listening, speaking, and writing to prepare for college foreign language courses. They are also introduced to the Spanish-speaking world through cultural activities.
Grade Level: 9-12	Duration: 2 semesters
Graduation Credit: 1 Foreign Language/Elective	
COURSE TITLE:	Spanish II
Course Numbers: 566210 566220	Students refine listening and speaking skills acquired in level 1 and are expected to comprehend more spoken Spanish. Emphasis is also on vocabulary and grammar through structure skills.
Grade Level: 9-12	Duration: 2 semesters
Graduation Credit: 1 Foreign Language/Elective	Prerequisite: Must have passed Spanish I.
COURSE TITLE:	Spanish III Dual Credit
Course Numbers: 56631X 56632X	In this honors course of study, the student will continue to study the Spanish language and culture with an emphasis on more complex structures and vocabulary. Students will begin the study of Spanish literature.
Grade Level: 10-12	Duration: 2 semesters
Graduation Credit: 1 Foreign Language/Elective	Prerequisite: Spanish II
College Credit: WLU SPAN 101	

# **CAREER AND TECHNICAL EDUCATION COURSES**

Career and Technology Education (CTE) is a program that enables John Marshall students to fulfill their career potential. The CTE program at John Marshall provides students with:

- academic subject matter taught with relevance to the real world, often called "contextual learning";
- employability skills, from job-related expertise to workplace ethics
- educational pathways that help them explore interests and careers while progressing through school
- postsecondary career pathways that include registered apprenticeship, industry certification, community college certificate/associate degree programs, and four-year college degree programs.

Career and Technology Education Programs provide students with BOTH relevant career skills preparation AND rigorous academic skills.

A <u>Completer Program</u> is a sequence of courses on a specific career pathway that provides a minimum of four credits in a Career and Technology Education Program. Most Completer Programs at John Marshall are two-year programs taken during a student's junior and senior year. When a student enters a Completer Program, they are committing to the two years it will take to acquire the four credits needed.

Many students in the completer programs will graduated high school with some type of certification or credentials. The West Virginia Board of Education approves all completer programs, and completion of the required CTE completer credits meets Marshall County Schools graduation requirements at the high school level. Students who successfully complete a CTE program in most occupational pathways are eligible for community college credit through EDGE (Earn a Degree Graduate Early).

#### **Simulated Workplace** - https://wvde.us/simulated-workplace/

The West Virginia Department of Education has worked with committee experts from numerous businesses and industries throughout West Virginia to design Simulated Workplace. This new educational initiative has been created to assist schools in implementing workplace environmental protocols that align with West Virginia workforce requirements, including random drug testing, professionalism, attendance, and safety. Simulated Workplace has not only enhanced instructional delivery of career education but has created a more engaged career and technical student. The simulated workplace environment permits students the opportunity to take ownership of their individual performance as it impacts the overall success of their education, while thriving in an authentic workplace culture. Simulated Workplace also encourages local business and industry experts to join onsite review teams to assist schools in meeting their workforce needs and expectations.

NOCTI Testing -https://wvde.us/governors-economic-initiatives/technical-assessment/

The Office of Governor's Economic Initiatives supports Federal Perkins accountability measures, such as technical assessments, for CTE state approved programs. The office oversees CTE programs' implementation of the National Occupational Competency Testing Institute (NOCTI) technical assessment as well the CTE Portfolio. NOCTI provides Standardized Assessments for Career and Technical Education Centers that are aligned with industry standards and created by industry experts in conjunction with educators across the country.

Governor's Workforce Credential - https://wvde.us/governors-economic-initiatives/student-opportunities/
The Governor's Workforce Credential signifies a student's knowledge of business processes within a Simulated Workplace environment. The West Virginia Governor endorses only the top CTE completers in the state for their achievements in academics, technical training and work readiness.

#### National Technical Honor Society - https://nths.org/

The National Technical Honor Society serves over 100,000 student members annually. Awarding over \$2 million in scholarships to date, NTHS honors the achievements of top CTE students, provides scholarships to encourage the pursuit of higher education, and cultivates excellence in today's highly competitive, skilled workforce. Student membership is open to John Marshall High School students who are enrolled in career and technical education programs. Each student must meet the qualifications set by the school. Membership cost is a one-time \$30 fee.



#### CTE ELECTIVES

CTE Electives are courses that can be taken idependently of a CTE Completer program (see Completer Program pg 33). Some of these electives are designed to be exploratory courses taken in 9th and 10th grade before applying for CTE programs. Some may also be taken at any grade level as a personal elective course. Course descriptions for these electives are isted under the corresponding programs.

Courses listed below <u>may</u> have prerequisites to enroll:

Agriculture Science

0101 - Introduction to Agriculture, Food, and Natural Resources – page

0149 - Companion Animal Care - page

0190 - Fish and Wildlife Management – page

**Broadcasting Technology** 

2421 - Communication Systems - page

**Business** 

1401 - Accounting Principles I

1452 – Personal Finance

1439 – Business & Marketing Essentials

1411 – Business Computer Applications I

1417 – Business Law and Ethics

0422 - Marketing Principles

0437 - Hospitality and Tourism Marketing

1455 – Web Page Publishing

1431 - Digital Imagine/Multimedia

Comuter Systems Repair Technology

1706 - Imaging For The Web

Therapeutic Services

0700 - Exploring Health Professions

Construction Technology

2424 - Construction Systems

Project Lead The Way (PLTW)

2461 - Introduction to Engineering

0727 - Principles of Biomedical Science

1408 – Computer Science Essentials

PROSTART Restaurant Management

1018 – Baking and Pastry Applications

0951 – Food Preparation

Family and Consumer Science

0929 - LIFE

0903 - Parenting & Strong Families

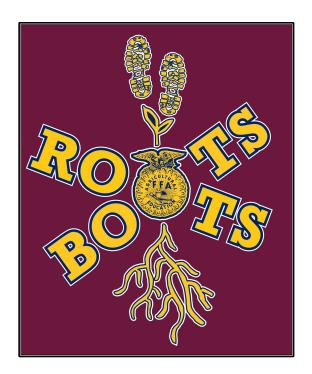
Home Mechanics

2554 – Mechanical Service Systems

Students planning to enroll in one of the following programs starting in 11th grade are encouraged to take Career Exploration in 10th grade:

Automotive Technology
Building and Maintenance Operations
Carpentry
Collision Repair Technology
Machine Tool Technology
Welding

COURSE TITLE:	Career Exploration
Course Numbers: 762710	This course is divided into six-week segments with each segment being completed in a different vocational area. The six areas include Automotive Technology, Collision
762720	Repair Technology, Welding Technology, Drafting, Home Repair, Construction Systems, and Machine Tool Technology. This course will expose the student to different
Grade Level: 10	technologies that will help them in choosing a future Career Technical area or for general experience.
Graduation Credit: 1 Elective	Duration: 2 semesters





#### <u>AGRICULTURE SCIENCE – AGRIBUSINESS SYSTEMS</u>

Available Credentials/Clubs: OSHA 10, FFA, TSA

Completer Courses: 1. 0101 - Intro to Agriculture, Food, & Natural Resources

2. 0102 - The Science of Agriculture3. 0134 - Agricultural ExperienceChoose one of the following:

a. 0111 - Food Science Technology

b. 0212 - Horticulture

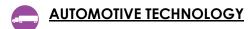
Related Electives: 1.0149 – Companion Animal Care

2. 0190 – Fish and Wildlife Management

COURSE TITLE:	Introduction to Agriculture, Food, and Natural Resources
Course Numbers:	This area of study is designed to provide students with core skills and competencies
010110	needed for pursuing careers in agriculture and natural resources. Students will utilize
010120	problem-solving techniques and participate in laboratory activities to develop an understanding of course concepts. Safety instruction is integrated into all activities.
Grade Level: 9-12	Students will be provided with real world learning opportunities and instruction related to selection, development, and maintenance of individual Supervised Agricultural
Graduation Credit:	Experience (SAE) programs.
1 Elective	#1 Completer Course
	Duration: 2 semesters CTE Elective
COURSE TITLE:	The Science of Agriculture
Course Numbers:	This course focuses on the basic scientific principles and processes related to the
010210	production of plants and animals for the food and fiber systems. Topics of instruction
010220	include basic understanding of the livestock/poultry industry and its various

Grade Level: 10-12	components, career opportunities, soil science, crop science/agronomy, v science, basic agricultural mechanics and related industry careers, environ stewardship, entrepreneurship, and leadership/personal development. Stu	nmental
Graduation Credit: 1 Elective	problem-solving techniques and participate in hands-on activities to deve understanding of course concepts. #2 Completer Course	
	Duration: 2 semesters	
	Durdiion. 2 semesiers	
COLUDEE TITLE	Prerequisite: Intro to Agriculture	
COURSE TITLE:	Agriculture Experience	
Course Numbers:	Required for summer projects for agricultural completers only. Projects must	
013410 013420	approved. Credit is awarded for completion of the Agriculture Experience #3 Completer Course	Project.
Grade Level: 11-12	Duration: 4 semester of enrollment Junior/Senior Year as a ½ credit each y	rear.
Graduation Credit: 1 Elective	Prerequisite: Teacher recommendation	
COURSE TITLE:	Horticulture	
Course Numbers:	Horticulture is one of four courses to complete Plant Systems Program. The	
021210	course is an in-depth look at concepts of plant growth and plant usage in	
021220	environment for aesthetics, ecosystem, and as plant products for human c Topics: Plant growth requirements, plant processes, and propagation. Stud	
Grade Level: 10-12	the greenhouse as a laboratory.  #4 Completer Course	acins will osc
Graduation Credit:		
1 Elective	Duration: 2 semesters	
COLUDAR TITLE	Prerequisite: Introduction to Agriculture	
COURSE TITLE:	Food Science Technology	
Course Numbers: 011110	This specialization course is for students who seek a deeper knowledge in t food science technology. Topics covered include food safety, business an	
011110	packaging and marketing, value-added processing, quality assurance, fo	
311120	processing, food preparation and presentation and careers in the food sci	
Grade Level: 10-12	industry. Students will utilize problem-solving techniques and participate in activities to develop an understanding of course concepts.	
Graduation Credit: 1 Elective	#4 Completer Course	
	Duration: 2 semesters	
0.01100=======	Prerequisite: Introduction to Agriculture	
COURSE TITLE:	Companion Animal Care (First Semester Only)	
Course Numbers: 0149E0	Students will gain an understanding in veterinary science through the study animals including dogs, cats, birds, and other household pets. This study wanatomy and physiology of various animals.	
Grade Level: 10-12	Duration: 1 semester	
Graduation Credit:	Decree of the debre deal of the Amiles II	OTE EL
½ Elective	Prerequisite: Introduction to Agriculture	CTE Elective
COURSE TITLE:	Fish and Wildlife Management (Second Semester Only	<u>')                                    </u>
Course Numbers: 019000	This specialization course covers topics on advanced wildlife management water quality, fish biology, history of fish and wildlife, habitat management and wildlife values as a natural resource. Students utilize problem-solving to	t principles, , life history
Grade Level: 10-12	and participate in hands-on activities to develop an understanding of cou	irse concepts.
Graduation Credit: ½ Elective	Students are encouraged to become active members of the student orga Students can earn their Hunter's Safety License as a part of this course.	inization, FFA.
	Duration: 1 semester	
	Prerequisite: Introduction to Agriculture	CTE Elective

Education is not the learning of facts, but the training of the mind to think.



Available Credentials/Clubs: ASE, WV State Inspection, Skills USA

Completer Courses: 1. 1631 - Automotive Technology MLR-1

2. 1623 - Automotive Technology MLR-2

3. 1625 - Automotive Technology MLR-3

4. 1637 - Automotive Technology MLR-4

a. 1633 – Auto-Tech AST3

Related Electives: 1. 7627 – Career Exploration

COURSE TITLE:	Auto-Tech MLR1/Auto-Tech MLR2 (2 period block)
Course Numbers:	This course is the first of a two-year program in Automotive Technology. Units:
162310 163120	automotive electrical systems, theory and operation of brake systems, fundamentals of steering and suspension systems, basic engine concept, engine performance, climate controls, standard and automatic transmissions, computerized data systems, and
Grade Level: 11-12	computer operations related to automotive technology. #1 and #2 Completer Courses
Graduation Credit:	
2 Electives	Duration: 2 semesters
COURSE TITLE:	Auto-Tech MLR3/Auto-Tech MLR4/Auto-Tech AST3 (3 pd block)
Course Numbers:	This class is the second year of Automotive Technology. Emphasis will be on obtaining
162510	"ASE" technician certification, CFC air-conditioning certification, and the West Virginia
163720	State Inspection Licensure. Units: computerized engine controls, heating & air
163310	conditioning, engine performance, computerized wheel alignments, suspension
163320	systems, antilock brakes, manual drive trains, front wheel drive systems, electrical/electronic systems, fuel injection, and electronic analyzers.
Grade Level: 12	#3 and #4 Completer Courses
Graduation Credit: 3 Electives	Duration: 2 semesters
	Prerequisite: Auto-Tech MLR 1/Auto-Tech MLR 2





### **BROADCASTING TECHNOLOGY**

Available Credentials/Clubs: Skills USA

Completer Courses: 1. 1681 - Fundamentals of Broadcasting

2. 1683 - Radio Broadcasting Presentations3. 1685 - Television Production Applications

4. 1689 - Producing Live TV

Related Electives: 1. 1684 - Video Editing

2. 2421 - Communication Systems

COURSE TITLE:	Fundamentals of Broadcasting
Course Numbers: 168110 168120 Grade Level: 11	This course will introduce students to the basic fundamentals needed to support broadcast managers in the production and broadcasting of materials and programs. Students will become familiar with the equipment, processes, and procedures used in producing and making of radio and television broadcasts.
	Duration: 2 semesters
Graduation Credit: 1 Elective	Prerequisite: Teacher recommendation
COURSE TITLE:	Radio Broadcasting Presentations
Course Numbers: 168310 168320 Grade Level: 11 Graduation Credit:	This course will provide students with the knowledge to perform, either in a live or mock setting, a radio broadcast.  Duration: 2 semesters  Prerequisite: Teacher recommendation
1 Elective	
COURSE TITLE:	Television Production Applications
Course Numbers: 168510 168520	This course will provide students with an entry-level understanding of the components of television broadcasting.  Duration: 2 semesters
Grade Level: 12 Graduation Credit: 1 Elective	Prerequisite: Teacher recommendation
COURSE TITLE:	Producing Live TV
Course Numbers: 168910 168920 Grade Level: 12 Graduation Credit: 1 Elective	This course is designed to prepare students for entry-level positions in the television industry. Students will be introduced to the requirements for producing live television news and other live programs including talk shows, game shows, variety shows and sports events. Because this is a course where students rely on other students for success of the broadcast, each student must attend class on a consistent basis. Any student not meeting the attendance requirement is subject to removal from the class.  Duration: 2 semesters  Prerequisite: Teacher recommendation
COURSE TITLE:	Video Editing
Course Numbers: 168410 168420 Grade Level: 11-12 Graduation Credit: 1 Elective	This full-year course is designed to train students in advanced-level video editing with nonlinear editors. Included in instruction are video effects, keying, color correction and other higher-level processes. The student will explore how packaging and imaging of a product impacts the sales of videos.  Duration: 2 semesters  Prerequisite: Fundamentals of Broadcasting and teacher recommendation

COURSE TITLE:	Digital Photography (Semester One)	
Course Number: 151500	This course introduces the student to the skills required to produce photographs. Students will use DSLR cameras, various accessories stripods, photo editing software, and an inkjet printer. Emphasis will the students of the students of the skills required to produce photographs.	uch as filters and '
Grade Level: 9-12	photojournalism and advertising photography. Units of Study: Cam Editing, Photo Printing.	era Basics, Photo
Graduation Credit:		OTE 51 1'
½ Elective Credit	Duration: 1 semester	CTE Elective
COURSE TITLE:	Communication Systems (Semester Two)	
Course Numbers: 242100	This course provides opportunities for students to study and apply to concepts and processes in communications technology. Group are engage students in creating ideas, developing innovations and im	nd individual activities
Grade Level: 9-12	solutions as they relate to communication systems.	picine ming design
Graduation Credit: ½ Elective Credit	Duration: 1 semester	CTE Elective



#### **BUSINESS**

Available Credentials/Clubs: Microsoft Office Specialist, Word, Excel, PowerPoint, Access, OSHA 10, WV Welcome Hospitality Certification, FBLA, DECA



#### **Accounting and Finance**

- 1. 1401 Accounting Principles I
- 2. 1403 Accounting Principles II
- 3. 1451 Personal Finance

Choose one of the following courses:

- c. 1439 Business and Marketing Essentials
- d. 1411 Business Computer Applications I
- e. 1413 Business Computer Applications II
- f. 1417 Business Law and Ethics

Related Electives: 1. 1445 – Management and Entrepreneurship



#### **Management and Administrative Support**

1. 1439 - Business & Marketing Essentials

2. 1411 - Business Computer Applications I

Choose two of the following courses:

a. 1413 - Business Computer Applications II

d. 1401 - Accounting Principles I

e. 1451 - Personal Finance

Related Electives: 1. 1445 – Management and Entrepreneurship

2. 1417 – Business Law and Ethics



#### **Marketing Management**

1. 0422 - Marketing Principles

2. 0425 - Marketing Applications

Choose two credits from the following courses:

a. 0426 – Cross-Media Marketing (1 credit)

b. 1401 - Accounting Principles I (1 credit)

c. 1439 – Business and Marketing Essentials (1 credit)

d. 1455 - Web Page Publishing (1/2 credit)

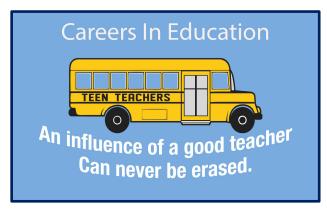
e. 1431 – Digital Imaging /Multimedia I (1/2 credit)

Related Electives: 1. 1445 – Management and Entrepreneurship

COURSE TITLE:	Accounting Principles I
Course Numbers:	Content emphasizes the introduction of basic accounting principles, procedures, and
1401E1	techniques involved in recording and classifying all transactions and financial
1401E2	statements. Both paper and electronic accounting practices are covered. This is one of the required courses for the Accounting concentration.
Grade Level: 10-12	of the required courses for the Accounting concentration.
Grade Ecvel. 10-12	Duration: 2 semesters
Graduation Credit:	
1 Elective	
FDCF Cradit aliqibla	CTE Elective
EDGE Credit eligible	
COURSE TITLE:	Accounting Principles II
Course Numbers:	In this class, training situations provide opportunities for the student to master the basic
1403E1 1403E2	skills necessary to perform accounting activities, prepare for on-the-job training, and function effectively in college accounting courses. One of the required courses for the
140312	Finance/Accounting concentration.
Grade Level: 11-12	Thirdines, Accessing Correcting
	Duration: 2 semesters
Graduation Credit:	
1 Elective	Prerequisite: Accounting I
EDGE Credit eligible	
EDGE Credit eligible	
COURSE TITLE:	Personal Finance
Course Numbers:	This course is designed to help students understand the impact of individual choices on
1451E1	occupational goals and future earning potential. Students will design personal and
1451E2	household budgets, simulate use of checking and saving accounts, demonstrate
Crade Levelt 11 12	knowledge of finance, debt, and credit management and evaluate and understand
Grade Level: 11-12	insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions.
Graduation Credit:	ппотпеа регола ппанска аестоль.
1 Personal Finance Credit	Duration: 2 semesters
	CTE Elective

COURSE TITLE:	Business and Marketing Essentials
Course Numbers:	This course is designed to provide the student with a working knowledge of the business
1439E1	environment. This course teaches students different forms of business and activities
1439E2	involved with operating a business. The course will provide a better understanding of
	what businesses will expect of their employees. This class is required for the
Grade Level: 9-12	Management and Accounting concentrations. (If majoring in the Management or
Cuardo artia a Cua dite	Accounting concentrations, this class should be taken before Business Management
Graduation Credit:  1 Elective	and Entrepreneurship). This course is EDGE credit eligible.
1 Liective	Duration: 2 semesters
EDGE Credit eligible	Bordion. 2 somestors
	CTE Elective
COURSE TITLE:	Business Computer Applications I
Course Numbers:	The curriculum within the Microsoft IT Academy will offer students learning solutions for IT
1411E1	skills training and certification as well as technology essentials for professionals. Students
1411E2	will develop skills that employers demand within the Microsoft Word and PowerPoint
Grade Level: 10-12	Programs. Upon completion of the course, students will complete the Microsoft Office Specialist Exams for Word 2013 and Excel 2013.
Sidde Level. 10-12	appealing Example 101 from 2010 and Excel 2010.
Graduation Credit:	Duration: 2 semesters
1 Elective	
EDGE Credit eligible	
	CTF Flooring
	CTE Elective
	Business Computer Applications II
Course Numbers:	The curriculum within the Microsoft IT Academy will offer students learning solutions for IT
1413E1 1413E2	skills training and certification as well as technology essentials for professionals. Students will develop skills that employers demand within the Microsoft Access and Excel
141312	Programs. Upon completion of the course, students will complete the Microsoft Office
Grade Level: 11-12	Specialist Exams for Access 2013 and PowerPoint 2013.
Graduation Credit:	Duration: 2 semesters
1 Elective	
	Prerequisite: Business Computer Applications I recommended
EDGE Credit eligible	
COURSE TITLE:	Marketing Principles
COURSE TITLE.  Course Numbers:	This course provides students with basic knowledge and skills related to marketing
<b>0422E1</b>	occupations. Units of study include marketing principles, human relations, marketing
0422E2	math, economic principles, school store operation, cash handling, sales process, and
	job-seeking and keeping skills. Students are strongly encouraged to take Marketing
Grade Level: 10-11	Principles in grade 10 or 11. This is one of the required classes for the Marketing
	concentration.
Graduation Credit:	Duration, 2 competers
1 Elective	Duration: 2 semesters
EDGE Credit eligible	
01 0.00 0	CTE Elective
COURSE TITLE:	Marketing Applications
Course Numbers:	Marketing Applications builds on skills provided in Marketing Principles to provide
0425E1	students with entry-level employment skills. Units of study include promotion, pricing,
0425E2	finance, distribution, risk management, purchasing, marketing, research and
	entrepreneurship. This is one of the required classes for the Marketing concentration.
Grade Level: 12	
Craduation Cradit	Duration: 2 semesters
Graduation Credit:  1 Elective	Prerequisite: Marketing Principles
I LIGUIVE	Traisquaire. Murkeling Hincipies
EDGE Credit eligible	

Course Numbers: Cro	oss-Media Marketing
	and the allies to the angle that all the artists of each the contract to the first and a three the artists are all
<b>0426E1</b> apr	ss-Media Marketing introduces students to a variety of marketing strategies and blications to prepare them for future marketing courses. Units of study include
0.00	vertising, promoting, marketing, communications, technology in retail marketing,
	tomer service, sales, digital marketing, digital media communications,
	d marketing strategies. This is one of the required classes for
	Marketing concentration.
Graduation Credit:	
1 Elective Dur	ation: 2 Semesters
COURSE TITLE:	anagement and Entrepreneurship Dual Credit
Course Numbers: This	class emphasizes management skills on the personal and corporate level and
	uses on what managers do, how they do it, and what factors will make them
	cessful in leading people or businesses. This class is required for the Management
	Marketing concentrations. This course is EDGE credit eligible.
Grade Level: 11-12	
Graduation Credit:	ation: 2 semesters
	requisite: Introduction to Business and Marketing Essentials
I rective Fre	equisite. Infroduction to business and marketing essentials
College Credit: WLU	
EDGE Credit eligible	
	siness Law and Ethics - Honors
Course Numbers: Bus	iness law provides students with information on the basic fundamentals of contracts,
	dit, employment, insurance, commercial paper, property and bailments. The legal
<b>14172H</b> cor	ncepts for this class will provide students the necessary legal knowledge that they will
	counter in their everyday lives.
Grade Level: 11-12	
I -	ation: 2 semesters
Graduation Credit:  1 Elective	CTF Floative
	CTE Elective
	gital Imaging/Multimedia I (Semester One)
	course will introduce students to the basics of producing digital images for
	timedia purposes. Students will explore various methods of producing images ough hands-on activities and experiences which will include operating a digital
	nera, using imaging software to improve photos or to create special effects,
	ating simple animations, manipulating video images, and producing multimedia
	iges.
Graduation Credit:	
½ Fine Arts Dur	ation: 1 semester CTE Elective
COURSE TITLE: We	eb Page Publishing (Semester Two)
	is a 1 semester class that will introduce students to the basic web page design
	ncepts and provide practice in creating web sites. Students will explore various
	olications in web page design through hands-on activities and experiences which
Grade Level: 10-12 ma	y include: using Web page development software, creating page layouts, adding
	ges and frames, creating elements and components, creating tables, managing
	, publishing to the Internet, creating hyperlinks, organizing tasks, and using HTML.
½ Elective	ation: 1 semester CTE Elective
I	





### **CAREERS IN EDUCATION (GROW YOUR OWN)**

Available Credentials/Clubs: Educator's Rising, ECCAT

Completer Courses: 1. 1306 - Intro to Education and the Classroom

2. 1307 - Intro to Child Development

3. 1308 – Introduction to Educational Psychology

4. 1309 – Intro to Social Emotional and Behavioral Wellness

COURSE TITLE:	Intro to Education and the Classroom/ Intro to Child Development (2 period block)
Course Numbers: 13061X 13072X	Introduction to Education and the Classroom explores teaching as a career. Students are introduced to the basic knowledge and skills needed to be an effective educator. They will investigate the roles and responsibilities of an educator, issues related to school and community, and the importance of developing a positive and inclusive culture in
Grade Level: 11-12	the classroom and throughout the school.
Graduation Credit: 2 Elective	Introduction to Child Development will provide students with insight on how a student learns at each developmental level. Future educators need to understand what and how children learn at each level of development to provide appropriate content and
EDGE Credit eligible	pedagogy. Students will be introduced to psychological, behavioral, and social learning theories and theorists. They will investigate the characteristics of learners and illustrate examples of the developmental levels at each stage. A clinical experience is required as part of the course completion.
	Duration: 2 semesters
	Prerequisite: Teacher recommendation
COURSE TITLE:	Introduction to Educational Psychology/Intro to Social Emotional and Behavioral Wellness (2 period block)
Course Numbers: 13081E 13092E Grade Level: 11-12 Graduation Credit:	Introduction to Educational Psychology will provide students with a deeper understanding of learning theories that can be applied to teaching and learning. Topics include intelligence, individual differences in learning, how people retrain new information, instructional approaches, student engagement and motivation, and assessment.
2 Elective	Introduction to Social, Emotional, and Behavioral Wellness prepares educators to examine the social and emotional needs of students and how to address the non-
EDGE Credit eligible	academic barriers to learning. They will be introduced to the effects of trauma, adverse childhood experiences, and provided with effective classroom strategies to create a positive classroom environment. Activities will include insight into how to collaborate with families, agencies, and the community to provide multi-tiered systems of support. Duration: 2 semesters
	Prerequisite: Teacher recommendation



**Completer Courses:** 

1. 1842 – Carpentry I

2. 1843 - Carpentry II

3. 1844 - Carpentry III

4. 1845 - Carpentry IV

COURSE TITLE:	Carpentry I/Carpentry II (2 period block)
Course Numbers: 184210 184320  Grade Level: 11  Graduation Credit: 2 Elective	This course introduces the student to the knowledge base and technical skills of the carpentry industry. Carpentry I begins with the NCCER Core curriculum which is a prerequisite to all Level I completions. The students will complete modules in Basic Safety; Introduction to Construction Math; Introduction to Hand Tools; Introduction to Power Tools; Introduction to Construction Drawings; Basic Rigging; Basic Communication Skills; Basic Employability Skills; and Introduction to Materials Handling. Students will then begin developing skill sets related to the fundamentals 6 of Carpentry such as Orientation to the Trade; Building Materials, Fasteners, and Adhesives; and Hand and Power Tools.
	Carpentry II will continue to build student skill sets in areas such as Reading Plans and Elevations; Floor Systems, Wall and Ceiling Framing; Roof Framing; Introduction to Concrete, Reinforcing Materials, and Forms; Windows and Exterior Doors; Basic Stair Layout.
	Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.
	Prerequisite: Teacher recommendation
COURSE TITLE:	Carpentry III/Carpentry IV/Framing Practices and Applications (3 period block)
Course Numbers: 184410 184520	Carpentry III will continue to build student skill sets in areas of Commercial Drawings; Roofing Applications; Thermal and Moisture Protection; and Exterior Finishing.
182410/20 Grade Level: 12 Graduation Credit:	Carpentry IV will continue to build student skill sets in areas of Cold-Formed Steel Framing; Drywall Installation; Drywall Finishing; Doors and Door Hardware; Suspended Ceilings; Window, Door, Floor, and Ceiling Trim; Cabinet Installation; and Cabinet Fabrication.
3 Elective	Students utilize problem- solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.  Prerequisite: Teacher recommendation

# THERAPEUTIC SERVICES

Available Credentials/Clubs: CNA, CPR, HOSA

Completer Courses: 1. 0711 - Foundations of Health Science

2. 0715 - Advanced Principles of Health Science

3. 0789 - Clinical Specialty I4. 0790 - Clinical Specialty II

a. 07210X – Medical Terminology

Related Electives: 1. 0700 – Exploring Health Professions

COURSE TITLE:	Foundations of Health Science (Honors)/Advanced Principles of Health Sciences (2 period block)
Course Numbers: 07111H 071520	Instructional content will focus on healthcare safety, environmental safety processes and procedures, ethical and legal responsibilities and mathematical computations. Medical terminology and the reinforcement, expansion and enhancement of biology content specific to diseases and disorders are an integral part of the course. Instruction
Grade Level: 11 Graduation Credit:	will incorporate project and problem-based healthcare practices and procedures to demonstrate the importance of these skills. Students will develop basic technical skills required for all health career specialties including patient privacy, communication,
2 Electives	teamwork and occupational safety and be provided with opportunities to obtain certifications in HIPPA/Data Privacy, and health care safety.
	Duration: 2 semesters
COURSE TITLE:	Clinical Specialty I/Clinical Specialty II/Med. Term (3 pd block)
Course Numbers: 078910 079020 07210X Grade Level: 12	These courses are designed to allow the student to choose career work-based experiences from a list of specializations provided by the instructor. In the first semester, students will volunteer as Nursing Assistants at Good Shepherd Nursing Home. Upon completion of the volunteer work, the students are eligible to become Certified Nursing Assistants after passing the standardized test.
Graduation Credit:	Duration: 2 semesters
3 Electives	Prerequisite: Successful completion of Foundations of Health Science and Advanced Principles of Health Sciences
07210X: EDGE Credit	
COURSE TITLE:	Exploring Health Professions
Course Numbers: 070000	This semester long course is designed to introduce students to the various professions associated with health care and health care providers.
Grade Level: 10	Duration: 1 semester
Graduation Credit: ½ Elective	CTE Elective





#### **COLLISION REPAIR TECHNOLOGY**

Available Credentials/Clubs: ASE, OSHA 10, Skills USA

Completer Courses: 1. 1671 - Fundamentals of Collision Repair Technology

2. 1675 - Nonstructural Analysis and Damage Repair

3. 1677 - Structural Analysis and Damage Repair

4. 1679 – Surface Preparation and Refinishing

a. 1676 – Custom Finishing Processes

Related Electives: 7627 – Career Exploration

COURSE TITLE:	Fundamentals of Collision Repair Technology/Nonstructural
	Analysis and Damage Repair (2 period block)
Course Numbers: 167110 167520 Grade Level: 11-12 Graduation Credit: 2 Electives	Fundamentals of Collision Repair introduces the student to the knowledge base and technical skills as they relate to the field of Collision Repair Technology. In the Fundamentals of Collision Repair Technology class areas of study include career opportunities and practices, integrated academics, knowledge of tools and equipment, panel straightening techniques, and introduction to vehicle preparation. Safety instruction is integrated into all activities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts.
	Non-Structural Analysis and Damage Repair will continue to build student skill sets in non-structural analysis and repair of metal and composite parts. Students will utilize integrated academics, problem-solving techniques, and manipulative skills while completing lab activities to develop an understanding of course concepts.  Duration: 2 semesters
COURSE TITLE:	Structural Analysis and Damage Repair/Surface Preparation
	and Refinishing/Custom Finishing Processes (3 period block)
Course Numbers: 167710 167920 167610/20	Structural Analysis and Damage Repair will continue to build student skill sets in frame and unibody type vehicles using welding techniques, measuring equipment, and frame machines.
Grade Level: 12	Surface Preparation and Refinishing will continue to build student skill sets in preparing a surface for refinishing; inspect, clean and operate spraying equipment; detail a vehicle; and diagnose finish defects.
Graduation Credit: 3 Electives	Duration: 2 semesters
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	Prerequisite: Fundamentals of Collision Repair Technology and Nonstructural Analysis and Damage Repair





#### **COMPUTER AIDED DRAFTING AND DESIGN**

Available Credentials/Clubs: Skills USA, OSHA 10

Completer Courses: 1. 1729 - Fundamentals of Drafting

2. 1727 - Drafting Techniques3. 1725 - Mechanical Drafting4. 1721 - Architectural Drafting

Related Electives: 1. 7627 – Career Exploration



COURSE TITLE:	Fundamentals of Drafting
Course Numbers: 1729E1/E2	This course introduces the student to the knowledge base and technical skills for all courses in the Drafting Program of Study. Areas of study include tools and equipment, measurement, basic drafting techniques, freehand technical sketching, orthographic
Grade Level: 9-10	projection, dimensioning, basic computer skills, and drawing techniques. Emphasis will be placed on personal and professional ethics, and students will explore a variety of
Graduation Credit: 1 Elective	career opportunities. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts. Teachers should provide each student with real world learning opportunities and instruction. Students are encouraged to become active members of the student organization, WV SkillsUSA. All West Virginia teachers are responsible for classroom instruction that integrates learning skills, technology tools, and skill sets.
	Duration: 2 semesters
	Prerequisite: Algebra and Geometry suggested
COURSE TITLE:	Drafting Techniques
Course Numbers: 1727E1/E2	This course introduces the student to techniques used in advanced orthographic projection. Areas of study include sectioning, pictorial views, auxiliary views, patterns and developments, dimensioning, advanced 2D CAD techniques, and basic 3D
Grade Level: 9-10	modeling in CAD. Students will demonstrate knowledge and technical expertise in various fundamental drafting techniques. Students utilize problem-solving techniques
Graduation Credit: 1 Elective	and participate in hands-on activities to develop an understanding of course concepts.
	Duration: 2 semesters
	Prerequisite: Algebra and Geometry suggested
COURSE TITLE:	Mechanical Drafting
Course Numbers: 1725E1/E2  Grade Level: 11-12	This course introduces the student to the knowledge base and technical skills necessary for mechanical drafting. Areas of study include advanced dimensioning techniques, assembly drawings, threads and fasteners, gears and cams, welding, and basic solid modeling. Emphasis will be placed on personal and professional ethics, and students will
Graduation Credit:	explore a variety of career opportunities.
1 Elective	Duration: 2 semesters
	Prerequisite: Fundamentals of Drafting and Drafting Techniques
COURSE TITLE:	Architectural Drafting
Course Numbers: 1721E1/E2 Grade Level: 11-12	This course introduces students to the specialization of architectural drawing and design. Areas of study include architectural styles, floor plans, dimensioning and annotation, site and foundation plans, elevations and section layouts, and residential utilities. Emphasis will be placed on personal and professional ethics, and students will
Graduation Credit:	explore a variety of career opportunities.
1 Elective	Duration: 2 semesters
	Prerequisite: Fundamentals of Drafting and Drafting Techniques

### **PROJECT LEAD THE WAY (PLTW)**

Students interested in completing a program in PLTW are encouraged to take one course each year in grades 9-12.

Available Credentials/Clubs: AP+PLTW Credentials

<u>Pre-Engineering</u> 1. 2461 - Introduction to Engineering

2. 2463 - Principles of Engineering

4. 2464 - Engineering Design and Development

Choose <u>one</u> of the following third year courses:

a. 2466 - Civil Engineering and Architectureb. 2806 - Computer Science Principles AP

(Description under Computer Science)

<u>Biomedical Science</u> 1. 0727 - Principles of Biomedical Science

2. 0766 - Human Body Systems3. 0780 - Medical Interventions4. 0795 - Biomedical Innovation

Computer Science 1. 1408 - Computer Science Essentials

2. 2806 - Computer Science Principles AP

3. 2801 - Computer Science AP

4. 1418 - Cybersecurity

#### **Pre-Engineering**

Potential College Credit awarded upon completion of the Pre-Engineering Pathway. Portfolio and fee to post-secondary institution required.

COURSE TITLE:	Intro to Engineering (PLTW PATHWAY PRE-ENGINEERING)
Course Numbers: 24611H 24612H Grade Level: 9-12	Project Lead the Way engineering students engage in open-ended problem solving, learn and apply the engineering design process, and use the same industry leading technology and software as are used in the world's top companies. Students investigate topics such as aerodynamics and astronautics, biological engineering, environmental engineering, digital electronics and circuit design that give them the opportunity to learn about
Graduation Credit:	different engineering disciplines before beginning post-secondary education.
1 Elective	Duration: 2 semesters  CTE Elective
COURSE TITLE:	Principles of Engineering (PLTW PATHWAY PRE-ENGINEERING)
Course Numbers: 24631H 24632H	Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.
Grade Level: 9-12	THIS COURSE CAN BE A 3RD YEAR LAB SCIENCE.
Graduation Credit: 1 Science	Duration: 2 semesters Prerequisite: Students must have passed Intro to Engineering
COURSE TITLE:	Civil Engineering and Architecture (PLTW PATHWAY PRE-ENGINEERING)
Course Numbers: 24661H 24662H	Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3-D architectural design software. In addition, as students work in teams to design and test solutions, they're empowered
Grade Level: 11-12	develop in-demand, transportable skills like collaboration, critical thinking, and communication.
Graduation Credit: 1 Elective	Prerequisite: Students must have passed Intro to Engineering.  Duration: 2 semesters

COURSE TITLE:	Engineering Design and Development (PLTW PATHWAY PRE-ENGINEERING CAPSTONE)
Course Numbers: 24641H	The knowledge and skills students acquire throughout PLTW Engineering come together in Engineering Design and Development as they identify an issue and then research, design,
24642H	and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to
Grade Level: 11-12	standards, completing Engineering Design and Development ready to take on any post- secondary program or career.
Graduation Credit:	
1 Elective	Duration: 2 semesters
	Prerequisite: Students must have passed Intro to Engineering, POE, and a third course engineering elective.

## **Biomedical Science**

COURSE TITLE:	Principles of Biomedical Science (PLTW PATHWAY BIOMEDICAL)
Course Numbers: 07271H 07272H	In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged
Grade Level: 9-12	the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own
Graduation Credit: 1 Elective	experiments to solve problems.
COURCE TITLE:	Duration: 2 semesters CTE Elective
COURSE TITLE:	Human Body Systems (PLTW PATHWAY BIOMEDICAL)
Course Numbers: 07661H 07662H	In this second course for Biomedical, Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis in the body. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle
Grade Level: 10-12	movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases <b>THIS COURSE CAN BE A 3</b> <sup>RD</sup>
Graduation Credit: 1 Science	YEAR LAB SCIENCE.
	Duration: 2 semesters Prerequisite: Students must have passed Principles of Biomedical Science.
COURSE TITLE:	Medical Interventions (PLTW PATHWAY BIOMEDICAL)
Course Numbers:	Students follow the life of a fictitious family as they investigate how to prevent, diagnose,
07801H 07802H	and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a
Grade Level: 11-12	range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.
Graduation Credit:	
1 Elective	Duration: 2 semesters Prerequisite: Students must have passed Human Body Systems.
COURSE TITLE:	Biomedical Innovation (PLTW PATHWAY BIOMEDICAL)
Course Numbers:	In the final course of the PLTW Biomedical Science sequence, students build on the
07951H	knowledge and skills gained from previous courses to design innovative solutions for the
07952H	most pressing health challenges of the 21st century. Students address topics ranging from
Grade Level: 11-12	public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent project with a mentor or advisor from a university, medical facility, or research institution.
Graduation Credit:	
1 Elective	Duration: 2 semesters Prerequisite: Students must have passed Medical Interventions.

## **Computer Science**

COURSE TITLE:	Computer Science Essentials (PLTW PATHWAY CS)
Course Numbers: 14081H 14082H  Grade Level: 9-12  Graduation Credit: 1 Elective	Designed to be the first computer science course for students who have never programmed before, Introduction to Computer Science is an optional starting point for the PLTW Computer Science program. Students work in teams to create apps for mobile devices using MIT App Inventor®. They explore the impact of computing in society and build skills in digital citizenship and cybersecurity. Beyond learning the fundamentals of programming, students build computational-thinking skills by applying computer science to collaboration tools, modeling and simulation, and data analysis. In addition, students transfer the understanding of programming gained in App Inventor to text-based programming in Python® and apply their knowledge to create algorithms for games of chance and strategy.
	Duration: 2 semesters CTE Elective
COURSE TITLE:	Computer Science Principles AP (PLTW PATHWAY CS)
Course Numbers: 28061A 28062A  Grade Level: 10-12  Graduation Credit: 1 Elective	Using Python® as a primary tool and incorporating multiple platforms and languages for computation, this course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. Computer Science Principles helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation. PLTW is recognized by the College Board as an endorsed provider of curriculum and professional development for AP® Computer Science Principles (AP CSP). This course can be a third course elective for the engineering pathway.  Duration: 2 semesters
	Prerequisite: Students must have passed Computer Science Essentials.
COURSE TITLE:	Computer Science Applications AP (PLTW PATHWAY CS)
Course Numbers: 28011A 28012A  Grade Level: 11-12  Graduation Credit: 1 Elective	Students cultivate their understanding of coding through analyzing, writing, and testing code as they explore concepts like modularity, variables, and control structures. This course is endorsed by the College Board, giving students the opportunity to take the AP Computer Science A exam for college credit.  Duration: 2 semesters  Prerequisite: Students must have passed Computer Science Principles AP or Principles of Engineering.
COURSE TITLE:	Cybersecurity (PLTW PATHWAY CS)
Course Numbers: 14181H 14182H  Grade Level: 11-12  Graduation Credit: 1 Elective	Cybersecurity introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy. Nationally, computational resources are vulnerable and frequently attacked; in Cybersecurity, students solve problems by understanding and closing these vulnerabilities. This course raises students' knowledge of and commitment to ethical computing behavior. It also aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely.  Duration: 2 semesters
	Prerequisite: Students must have passed Computer Science AP.



#### **PROSTART Restaurant Management**

Available Credentials/Clubs: ServSafe, Food Handler's Card, WV Welcome Hospitality Certification, NRAEF, Skills USA, FCCLA

Completer Courses: 1. 1013 - Restaurant and Culinary Foundations

2. 1014 - Restaurant Management Essentials

3. 1019 - Advanced Principles in Food Production

4. 1020 - Restaurant Professional

Related Electives: 1. 1210 - Hospitality and Tourism Internship

2. 1018 - Baking and Pastry Applications

COURSE TITLE:	Restaurant and Culinary Foundations/Restaurant Management Essentials (PROSTART I) (2 period block)
Course Numbers: 1013E1 1014E2	This class is the first of a two-year program designed to develop entry level skills for the Food Service Industry. The student will study the fundamentals of food technology, basic food production, quick service, sanitation, safety and dining room customer service.
Grade Levels: 11	Duration: 2 semesters
Graduation Credit: 2 Elective	
COURSE TITLE:	Advanced Principles in Food Production/Restaurant Professional (PROSTART II) (2 period block)
Course Numbers: 1019E1 1020E2	This is the second of a two-year program designed to prepare a student for a food service occupation. It emphasizes professional food services, dining room service and work experiences in the food service industry.
Grade Level: 12	Duration: 2 semesters
Graduation Credit: 2 Elective	Prerequisite: Restaurant and Culinary Foundations and Restaurant Management Essentials (PROSTART I)
COURSE TITLE:	Hospitality and Tourism Internship
Course Numbers: 121010 121020	This course provides work experiences in the food service industry. Students must be employed in food service industry and must submit a letter from current employer verifying employment.
Grade Level: 12	Duration: 2 semesters
Graduation Credit: 1 Elective	Prerequisite: Must have been enrolled in Advanced Principles in Food Production/Restaurant Professional (PROSTART II).
COURSE TITLE:	Baking and Pastry Applications
Course Numbers: 101800	Baking and Pastry is an elective course which focuses on weights, measures, and general baking, classifications, handling and storage of ingredients, safety and handling, yeast raised dough products, cakes, cookies, batters, breads, biscuits, muffins,
Grade Level: 9-12	pies, and special dessert preparation. Students utilize problem-solving techniques and participate in hands-on activities to develop an understanding of course concepts.
Graduation Credit: ½ Elective	Teachers should provide each student with real world learning opportunities and instruction.
	Duration 1 semester  CTE Elective

JOHN MARSHALL

MONARCH CAFE



## **FAMILY and CONSUMER SCIENCE**

COURSE TITLE:	Life
Course Numbers: 092910 092920	This class is offered as a one-credit class. Students examine areas of Foods and Nutrition, Parenting, Life Relationships, Financial Literacy, Personal Wellness and Resource Management.
Grade Level: 9-10	Duration: 2 semesters
Graduation Credit: 1 Elective	
	CTE Elective
COURSE TITLE:	Parenting and Strong Families
Course Numbers: 090300	This class helps students evaluate readiness for parenting while examining appropriate parenting and strong family practices. Students have an opportunity to experience parenting through the Real Care Baby Project, a baby simulation that requires round
Grade Level: 10-12	the clock care of a newborn. Class size is limited to 18.
Graduation Credit: ½ Elective	Duration: 1 semester
	CTE Elective
COURSE TITLE:	Food Preparation
Course Number: 095100	Food Preparation emphasizes skill development in the selection, preparation, storing and serving of food, management of resources to meet individual and family nutritional needs and optimal use of food resources, the principles of nutrition and the relationship
Grade Level: 10-12	of nutrition to health and well-being. Class size is 18. Good attendance is used to select students.
Graduation Credit:	
½ Elective	Duration: 1 semester
	CTE Elective



#### **BUILDING MAINTENANCE AND OPERATIONS**

Available Credentials/Clubs: Skills USA

Completer Courses: 1. 1774 – Building Maintenance and Operations I

2. 1775 - Building Maintenance and Operations II3. 1776 - Building Maintenance and Operations III

4. 1777 - Building Maintenance and Operations IV

Related Electives: 1. 2445 – Mechanical Service Systems

2. 2442 – Manufacturing Systems

3. 2448 – Transportation Systems

O O LIBOR TITLE	
COURSE TITLE:	Building Maintenance and Operations I
Course Numbers:	This course introduces the student to the knowledge base and technical skills of the
177410	Building Maintenance and Operations Industry. Building Maintenance and Operations I
177420	begins with the NCCER Core curriculum which is a prerequisite to all Level I completions.
Grade Level: 9-10	The students will complete modules in Basic Safety; Introduction to Construction Math; Introduction to Hand Tools; Introduction to Power Tools; Introduction to Construction
Grade Level. 9-10	Drawings; Basic Rigging; Basic Communication Skills; Basic Employability Skills; and
Graduation Credit:	Introduction to Materials Handling. Students will then begin developing skill sets related
1 Elective	to the fundamentals of Building Maintenance and Operations such as Site Layout One:
	Distance Measurement and Leveling; and Introduction to Concrete, Reinforcing
	Materials and Forms. Students utilize problem-solving techniques and participate in
	hands-on activities to develop an understanding of course concepts.
COURSE TITLE.	Duration: 2 semesters
COURSE TITLE:	Building Maintenance and Operations II
Course Numbers:	Building Maintenance and Operations II will continue to build student skill sets in areas
177510 177520	such as Handling and Placing Concrete; Introduction to Masonry; and Masonry Units and Installation Techniques. Students utilize problem-solving techniques and participate
177320	in hands-on activities to develop an understanding of course concepts.
Grade Level: 9-10	infinition of delivines to develop an industrialing of eoolise conteepis.
	Duration: 2 semesters
Graduation Credit:	
1 Elective	Prerequisite: Building and Maintenance Operations I
COURSE TITLE:	Building Maintenance and Operations III
Course Numbers:	Building Maintenance and Operations III will continue to build student skill sets in areas
177610	of Floor Systems; Wall and Ceiling Framing; Roof Framing; and Roofing Applications.
177610	Students utilize problem-solving techniques and participate in hands-on activities to
177020	develop an understanding of course concepts.
Grade Level: 11-12	actions are arranged to consider the constant of the constant
	Duration: 2 semesters
Graduation Credit:	
1 Elective	Prerequisite: Building and Maintenance Operations II
COURSE TITLE:	Building Maintenance and Operations IV
Course Numbers:	Building Maintenance and Operations will continue to build student skill sets in areas of
177710	Exterior Finishing; Basic Stair Layout; Electrical Safety; and Residential Electrical Services.
177720	Students utilize problem-solving techniques and participate in hands-on activities to
	develop an understanding of course concepts.
Grade Level: 11-12	
	Duration: 2 semesters
O	
Graduation Credit:	Dragaquisitas Building and Maintananaa Or saatisaa III
Graduation Credit: 1 Elective	Prerequisite: Building and Maintenance Operations III

COURSE TITLE:	Mechanical Service Systems (Home Mechanics I)
Course Numbers: 244510 244520 Grade Level: 9-12	This class will include emphasis on general maintenance of buildings, equipment, and furnishings. Students will be introduced to the basic principles of mechanisms, electricity, and fluidics involved in the support, maintenance, design, and installation of all types of mechanical and electrical devices. Safety instruction is integrated into all activities.
Graduation Credit: 1 Elective	Duration: 2 semesters  CTE Elective
COURSE TITLE:	Manufacturing Systems (Home Mechanics II)
Course Numbers: 244210 244220 Grade Level: 10-12 Graduation Credit: 1 Elective	This class will introduce students to the basic elements of the manufacturing industry. It provides opportunities for students to study and apply technological systems, concepts and processes in the operation of a manufacturing enterprise. Safety instruction is integrated into all activities.  Duration: 2 semesters  Prerequisite: Mechanical Services Systems and instructor permission
COURSE TITLE:	Transportation Systems (Home Mechanics III)
Course Numbers: 244810 244820 Grade Level: 11-12	This course introduces the student to the knowledge base and technical skills for all courses in the Millwork and Cabinetmaking concentration. Areas of study include career opportunities, safety, measurement, blue prints, drawings, plans, hand tools and power tools. Emphasis will be placed on career exploration, job seeking skills and personal and professional ethics. Safety instruction is integrated into all activities.
Graduation Credit: 1 Elective	Duration: 2 semesters  Prerequisite: Manufacturing Systems and instructor permission



### **COMPUTER SYSTEMS REPAIR TECHNOLOGY**

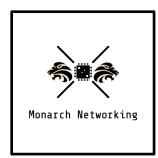
Available Credentials/Clubs: Skills USA, Microsoft A+ Credentials

Completer Courses: 1. 1664 - CompTIA A+ 220-901

2. 1665 - CompTIA A+ 220-902 3. 1694 - Networking + N10-006

4. 1695 - Server +

Related Electives: 1. 1706 – Imaging for the Web



COURSE TITLE:	CompTIA A+ 220-901/CompTIA A+ 220-902 (2 period block)
Course Numbers:	Students will learn to build, maintain, and troubleshoot a computer's hardware
166410 166520	including motherboards, power supplies, memory, storage systems, etc.
Grade Level: 10-12	Students will learn how to install, operate, and troubleshoot various operating systems including Windows 9X, Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8 and various distributions of Linux.
Graduation Credit: 2 Electives	#1 and #2 Completer Courses
	Duration: 2 semesters
	Prerequisite: Business Computer Applications I
COURSE TITLE:	Networking + N10-006/Server+
	(2 period block)
Course Numbers: 169410 169520 Grade Level: 12	This ARIES class is a full semester of professional IT training that builds a solid foundation of network administration skills, protocols, the OSI module, LAN design, cabling and connectors, and troubleshooting and maintenance for non-vendor-specific environments. Students will troubleshoot and repair computers as part of regular class work.
Graduation Credit: 2 Electives	Areas of study include computer hardware, data representation, operating system, utility, productivity software, communications and networks, and the Internet. Emphasis will be placed on personal and professional ethics, and students will explore a variety of career opportunities.  #3 and #4 Completer Courses
	Duration: 2 semesters
	Prerequisite: A+ Essentials and A+ Practical Applications
COURSE TITLE:	Imaging for the Web
Course Numbers: 170610 170620	This course introduces the student to the knowledge base and technical skills for producing digital images for use in web sites and multimedia applications. Areas of study include digital imaging concepts, imaging hardware, imaging applications, and legal and ethical consideration. Students will demonstrate knowledge and technical
Grade Level: 10-12	expertise in creating, capturing, and altering digital images. Emphasis will be placed on personal and professional ethics, and students will explore a variety of career
Graduation Credit: 1 Elective	opportunities. This course is recommended as an Elective in the Computer Systems Repair Technology Program of Study.
	Duration: 2 semesters





### **MACHINE TOOL TECHNOLOGY**

Available Credentials/Clubs: NIMS, OSHA 10, Skills USA

Completer Courses: 1. 1903 - Fundamentals of Machine Tool Technology

2. 1907 - Machine Tool Operations

3. 1905 - Fundamentals of Machine Processes

4. 1909 - Metal Trades Processes and Applications

a. 1902 – Machine Tool Technology

COURSE TITLE:	Fundamentals of Machine Tool Technology/Machine Tool Operations (2 period block)
Course Numbers: 190310 190720	This class is the first of a two-year program teaching machine tool technology in units of safety, measurement, basic procedures, machine processes, blueprint reading, various types of math that apply to shop processes, and basic computerized machining processes.
Grade Level: 11	#1 and #2 Completer Courses
Graduation Credit: 2 Electives	Duration: 2 semesters
COURSE TITLE:	Fundamentals of Machine Processes/Metal Trades Processes and Applications/Machine Tool Technology (3 period block)
Course Numbers: 190510 190920 190210	The second year of Machine Tool Technology emphasizes advanced machining processes on manual and computerized machinery. #3 and #4 Completer Courses
190220	Duration: 2 semesters
Grade Level: 12	Prerequisite: Fundamentals of Machine Tool Technology and Machine Tool Operations.
Graduation Credit: 3 Electives	



Available Credentials/Clubs: Skills USA, WV State Welding Certificate, OSHA 10

Completer Courses: 1. 1862 - Welding I

1863 - Welding II
 1864 - Welding III
 1865 - Welding IV

a. Blueprint Reading and Metallurgy

Related Electives: 1. 7627 – Career Exploration

COURSE TITLE:	Welding I/Welding II (2 period block)	
Course Numbers: 1862E1 1863E2	First of two-year program in welding technology. Units: Intro to welding, oxy-fuel cutting and welding, shielded metal arc welding and gas metal arc welding, and blueprint reading. #1 and #2 Completer Courses	
Grade Level: 11	Duration: 2 semesters	
Graduation Credit: 2 Electives	Bordien. 236mesters	
COURSE TITLE:	Welding III/Welding IV/Blueprint Reading and Metallurgy	
	(3 period block)	
Course Numbers: 1864E1 1865E2 198310 198320	The second year of welding focuses on obtaining a WV State welding certificates on plate and pipe welding using four different welding processes. Additional studies include advanced metallurgy, gas tungsten arc welding, blueprint reading, flux cored, plasma arc and gas metal arc welding.  #3 and #4 Completer Courses	
Grade Level: 12	Duration: 2 semesters	
Graduation Credit: 3 Electives	Prerequisite: Welding I and Welding II	



#### **ADDITIONAL COURSES**

skills desired by employers? If your answer is yes, then this course is for you. In Fab Lab, computer-controlled fabrication technologies such as 3D printers, lasers, CNC routers, vinyl cutters and milling machines will be used to transform a product idea into its tangible form. Students will explore many interrelated career fields, including engineering, science, mathematics, art, graphic design, computer aided design (CAE electronics, and entrepreneurship. General elective credit.  Duration: 2 semesters  COURSE TITLE:  Special Programs Peer Tutor  Course Numbers: 763199  Grade Level: 10-12  Graduation Credit: Non-credit  COURSE TITLE:  Course Numbers: 481010  481020  skills desired by employers? If your answer is yes, then this course is for you. In Fab Lab, computers is for you. In Fab Lab, computers, and so 3D printers, lasers, CNC routers, vinyl cutters, will be used to transform a product idea into its tangible form. Students will be used to transform a product idea into its tangible form. Students will be exposed to nonfiction	Course Numbers: 762010 762020  Grade Level: 9-12  Graduation Credit: 1 Elective  COURSE TITLE: Course Numbers: 763199	Do you want to use state-of-the-art equipment to design, build and test almost anything? Would you like to develop the technological, problem-solving and hands-on skills desired by employers? If your answer is yes, then this course is for you. In Fab Lab, computer-controlled fabrication technologies such as 3D printers, lasers, CNC routers, vinyl cutters and milling machines will be used to transform a product idea into its tangible form. Students will explore many interrelated career fields, including engineering, science, mathematics, art, graphic design, computer aided design (CAD), electronics, and entrepreneurship. General elective credit.  Duration: 2 semesters  Special Programs Peer Tutor  Students who take this course will help students with special needs complete daily	
COURSE TITLE:  Special Programs Peer Tutor  Course Numbers: 763199  Students who take this course will help students with special needs complete daily classroom activities while increasing socialization and interaction with peers.  Duration: 1 semester  Graduation Credit: Non-credit  COURSE TITLE:  Reading Support  This course is designed to improve student's reading ability. Emphasis and practice is provided using scientifically researched based reading programs. The goal of this course is to provide students with multiple strategies in the five areas of reading throug small group instruction and hands on activities. Students will be exposed to nonfiction	Course Numbers: 763199	Special Programs Peer Tutor  Students who take this course will help students with special needs complete daily	
Course Numbers: 763199  Students who take this course will help students with special needs complete daily classroom activities while increasing socialization and interaction with peers.  Duration: 1 semester  Duration: 1 semester  COURSE TITLE:  Course Numbers: 481010  481020  Reading Support  This course is designed to improve student's reading ability. Emphasis and practice is provided using scientifically researched based reading programs. The goal of this course is to provide students with multiple strategies in the five areas of reading through small group instruction and hands on activities. Students will be exposed to nonfiction	Course Numbers: 763199	Students who take this course will help students with special needs complete daily	
Course Numbers: 763199  Students who take this course will help students with special needs complete daily classroom activities while increasing socialization and interaction with peers.  Duration: 1 semester  Course Numbers:  Course Numbers:  481010  481020  Students who take this course will help students with special needs complete daily classroom activities while increasing socialization and interaction with peers.  Duration: 1 semester  Reading Support  This course is designed to improve student's reading ability. Emphasis and practice is provided using scientifically researched based reading programs. The goal of this course is to provide students with multiple strategies in the five areas of reading through small group instruction and hands on activities. Students will be exposed to nonfiction	763199	Students who take this course will help students with special needs complete daily	
Graduation Credit: Non-credit  COURSE TITLE: Reading Support  Course Numbers: 481010 481020 This course is designed to improve student's reading ability. Emphasis and practice is provided using scientifically researched based reading programs. The goal of this course is to provide students with multiple strategies in the five areas of reading through small group instruction and hands on activities. Students will be exposed to nonfiction	Grade Level: 10-12	classicom denvines with increasing socialization and inforderion with pools.	
Non-credit  COURSE TITLE:  Reading Support  Course Numbers:  481010  481020  This course is designed to improve student's reading ability. Emphasis and practice is provided using scientifically researched based reading programs. The goal of this course is to provide students with multiple strategies in the five areas of reading through small group instruction and hands on activities. Students will be exposed to nonfiction		Duration: 1 semester	
Course Numbers:  481010  This course is designed to improve student's reading ability. Emphasis and practice is provided using scientifically researched based reading programs. The goal of this course is to provide students with multiple strategies in the five areas of reading through small group instruction and hands on activities. Students will be exposed to nonfiction			
481010  481020  provided using scientifically researched based reading programs. The goal of this course is to provide students with multiple strategies in the five areas of reading through small group instruction and hands on activities. Students will be exposed to nonfiction	COURSE TITLE:	Reading Support	
Grade Level: 9-12 stories, fiction stories, and informational texts covering all the content areas.	481010		
Graduation Credit: 1 Elective  Duration: 2 semesters		Duration: 2 semesters	
COURSE TITLE: Robotics I/II/III/IV	COURSE TITLE:	Robotics I/II/III/IV	
Course Numbers:  186610/20  186710/20  186810/20  186910/20  Duration: 2 semesters  REC 1 includes an introduction to Robotics and to VEX programming. Students utilize problem- solving techniques and participate in hands-on activities to develop an understanding of course concepts.	Course Numbers: 186610/20 186710/20 186810/20	REC 1 includes an introduction to Robotics and to VEX programming. Students utilize problem- solving techniques and participate in hands-on activities to develop an understanding of course concepts.	
Grade Level: 9-12	Grade Level: 9-12		
Graduation Credit: 1 Elective			

-Cesare Pavese Italian Poet/ Author

<sup>&</sup>quot;We do not remember days, we remember moments."

## John Marshall Career Technical Education Application

Return to: John Marshall Counseling Office Date Returned  CAREER TECHNICAL EDUCATION SIMULATED WORKPLACE STUDENT APPLICATION FORM  Name (Print)  Grade  WVEIS Number  High School (Circle One) JMHS CHS Uniform (Shirt) Size					
Home Address					
City					
Student Phone # Alternate Number  Best Number to Reach Parent/Guardian					
Completer Programs Offered					
ACCOUNTING & FINANCE  ACCOUNTING & FINANCE  ACCOUNTING & FINANCE  MANAGEMENT & ADMINISTRATIVE SUPPORT  MARKETING MANAGEMENT  COLLISION REPAIR TECHNOLOGY  AUTOMOTIVE TECHNOLOGY  AUTOMOTIVE TECHNOLOGY  WELDING TECHNOLOGY  COMPUTER AIDED DRAFTING & DESIGN  PROSTART RESTAURANT MANAGEMENT  THERAPEUTIC SERVICES  Indicate in Which Programs You Wish to Enroll (Please List Your Top 2 Choices)  You will only be selected for one Blocked Program.  Choice 1:  Non-Blocked Programs Offered  ACCOUNTING & FINANCE  MANAGEMENT & ADMINISTRATIVE SUPPORT  MARKETING MANAGEMENT  CONSTRUCTION SYSTEMS  PLTW - BIOMEDICAL SCIENCE  PLTW - BIOMEDICAL SCIENCE					
Chaire 1:	Chaire 3:				
Choice 1: Choice 2: You may select both blocked and non-blocked programs if you wish, you are not required to choose a program from each type.  Find information about all of these programs and courses in the Course Description Booklet at http://jmhs.mars.k12.wv.us					
Student Signature:	Date				
Non-Discrimination: This Company prohibits discrimination against or harassment of any person employed by or seeking employment with the CTE program because of race, creed, religion, or national origin or because of age, physical or mental disability, or sex.					
(For School Use Only)					
Student GPA Days Absent in Current Year Discipline Referrals					

# **JMHS SCHEDULE PLANNER**

	CORE	1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester
	CLASSES		
1	English/Lang. Arts		
2	Mathematics		
3	Science		
4	Social Studies		
	OTHER		
	REQUIREMENTS		
1	Fine Arts		
2	Physical Education		
3	Health		
4	Personal Finance		
	ELECTIVES		
1	#1 Choice		
2	#2 Choice		
3	#3 Choice		
4	#4 Choice		
5	#5 Choice		
6	#6 Choice		
	Total Number of		
	Classes		
	Total Number of		
	Credits		