



Secondary Schools PROGRAM OF STUDIES 2019 – 2020

Note: All paper copies are subject to recent updates, to access the most up-to-date Program of Studies, please refer to wythe.k12.va.us.

INTRODUCTION

The Program of Studies, written for Wythe County students, parents, and other interested parties, contains information regarding course offerings, policies, requirements, and services. This information has been prepared to assist each student in selecting the program of studies that best suits his/her need(s) to prepare for entry-level positions in business or industry and to continue his/her education after high school.

General Information

When selecting a program of studies, students should recognize employment and college admissions opportunities are highly competitive. The quality of the subjects studied and caliber of the academic performance will be crucial factors in decisions made by employers and college admissions personnel. Therefore, it is to the student's advantage to select a four-year program of studies that is challenging and serves as a recommendation.

PROGRAM PLANNING

Wythe County Public Schools provides programs of study for secondary students that follow academic and/or career and technical areas of interest. These programs give:

- academic/liberal arts choices that prepare students for baccalaureate level studies
- career and technical education choices that prepare each student with academic and
- career and technical skills for entry-level positions in business /industry and the continuation of his/her education, and
- studies that combine two or more careers/learning paths.

Selecting a course of studies is very important and is a cooperative venture involving parents, teachers, counselors, and the student. Students and parents are advised to be careful in selecting elective courses. Elective courses should be a part of a logical sequence that builds on each other and result in an identifiable body of knowledge and set of skills.

Progress in school, test scores, personality, interests, teachers' recommendations, and tentative career choices are used as criteria for helping students select their programs of studies. Course prerequisites are based on the skills needed to complete a given course successfully

Except in special circumstances, once students select their classes for the school year, they may not make changes in their classes for that year. Students may not drop a Semester Block class after the 4th school day and may not drop a Singleton Year-long class after the 8th school day. Students who drop a class after these deadlines will receive a final grade of F in that class, except for extreme situations as determined by the principal. For these reasons, it is vital students select their

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program of studies carefully. Standards for dual enrollment classes may differ. See your school counselor for specific questions regarding making changes to dual enrollment classes. Course offerings have been designed to meet the needs of Wythe County high school students. After a preliminary selection of courses, it may be necessary to make alternate choices if an insufficient number of students request a course, if a teacher and/or facilities are not available, or if the course is not approved by the school board.

ATTENDANCE REQUIREMENTS

There is a strong positive correlation between attendance and academic progress. Therefore, students are to attend school all day every day school is in session unless an emergency arises. Parents are responsible for contacting their child's school as soon as possible any morning that their child(ren) will be absent.

Wythe County Public Schools will accept eight (8) days of absences from school, per school year, as excused (verified) with a parent's note. Absences beyond the eight (8) days of accepted parent notes will be unexcused (unverified), and subject to truancy regulations except in the following circumstances:

- A doctor or other medical professional appointment;
- Serious illness or death in the immediate family (sibling, parent, grandparent);
- Observation of religious holy days;
- Student's court or probation appointment;
- Parent departure or return to active military duty;
- School based activity;
- College or university visit (1 per junior and 2 per senior year with appropriate verification);
- Natural disaster;
- Extended documented medical condition;
- Extenuating circumstances recognized by the principal.

Parents and students are asked to review the current Wythe County Public Schools attendance policies and procedures. This policy can be found in the Wythe County Public Schools Student Handbook and in the Wythe County Public Schools Policy Manual. Questions concerning this policy can be directed to the school principal.

TESTS AND EXAMINATIONS

Standards of Learning (SOL's)

Unless you are provided additional course specific learning objectives, the base learning objectives for your child are called the Standards of Learning (SOL's). The SOL's are provided for your review at [Virginia Department of Education](http://www.doe.virginia.gov), and are available in your child's school. SOL tests are administered at the end of the course and test the minimum expectations for what students should be able to do at the end of each grade or course. Secondary school students will receive a syllabus for each course they are enrolled in and are instructed to provide the syllabus to their parent/guardian.

End of Course SOL Tests and Verified Credits

Students in middle and secondary schools shall take all applicable end-of-course SOL tests following course instruction. Students who earn a standard credit and achieve a passing score on an end-of-course SOL test shall be awarded a verified unit of credit in that course in accordance with the provisions of 8 VAC 20-131-110.B. Students may earn verified units of credit in any courses for which end-of-course SOL tests are available. Middle and secondary schools may consider the students end-of-course SOL test score in determining the student's final course grade. However, no student who has failed an end-of-course SOL test but passed the related course shall be prevented from taking any other course in a content area and from taking the applicable end-of-course SOL test. The Board may approve other additional tests to verify student achievement in accordance with guidelines adopted for verified units of credit described in 8 VAC 20-131-110.B.

High School Exams

Every high school student is expected to take a final End-of-Course exam. A comprehensive final exam, worth 20% of the final grade is to be given in every class. Exams will be given twice a year at the end of each semester. Students enrolled in block classes will take their exams at the end of each semester. Student enrolled in singleton year-long classes will have a mid-term exam at the end of the first semester as well as final exam at the end of the second semester.

Exam Exemption Eligibility

As a reward for excellent attendance or academic performance, students may exempt exams for the following reasons:

- If the student has an A average in the class with no more than 7 absences from the class.
- If the student has a B average in the class with no more than 6 absences from the class.
- If the student has a C average in the class with no more than 5 absences from the class.
- Students with a D or F average are not exempt from exams.

Whole day absences are defined as unverified, parent reports, professional appointments, and out of school suspension (UNV, PAR, PRO, OSS). If a student is tardy and/or checks-out of school resulting in missing an entire class period, they will be considered absent for that class period only. Tardies and Checkouts are defined as early check-out other, early check-out professional, tardy professional, tardy other or any combination thereof (ECO, ECP, TCP, TCO). No exceptions will be granted to the stipulations above.

Students enrolled in a Dual Enrollment course are subject to the exam regulations set forth within the Wytheville Community College Handbook. The WCPS exam exemption eligibility does not apply to Dual Enrollment classes.

Any student may choose to take an exam even though he/she has qualified for an exemption. Any parent who wishes to do so may require their children to take all final exams regardless of their exam exemption eligibility.

GRADUATION REQUIREMENTS

The requirements for a student to earn a diploma from a Wythe County high school shall be those in effect when that student enters the ninth grade for the first time. There will be two different sets of requirements students will need to follow depending on the year they enter high school as a freshman. Students who entered high school for the first time in 2015, 2016, or 2017 will be responsible for meeting the VDOE original graduation requirements. Students entering high school for the first time in 2018 and beyond will be responsible for meeting the new "Profile of a Graduate" graduation requirements. Students will be awarded a diploma or certificate upon completion of graduation requirements from a Wythe County high school.

When students below the ninth grade successfully complete courses offered for credit in grades nine through twelve, credit shall be counted toward meeting the units of credit required for graduation provided the courses meet SOL content requirements or are equivalent in content and academic rigor as those courses offered at the secondary level. Secondary students may earn either a standard unit of credit or a verified unit of credit. A standard unit of credit is awarded for a course in which the student successfully completes the objectives of the course and the equivalent of 140 clock hours of instruction. A verified unit of credit is awarded for a course in which the student earns a standard unit of credit and achieves a passing score on a corresponding end-of-course SOL test or a substitute assessment approved by the Board of Education. To earn a verified unit of credit for these courses, students must meet the requirements of 8 VAC 20-131-110.B.

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The Virginia Board of Education approved, in November 2017, revisions to the standards schools must meet for state accreditation and the requirements students must meet to earn a high school diploma. The new diploma requirements would take effect with students entering the ninth grade in the fall of 2018 (class of 2022). Course requirements for both the Advanced Studies Diploma and the Standard Diploma would remain the same but the number of required verified credits would be reduced to five (one each in English reading, English writing, mathematics, science and history/social science). For students entering high school for the first time in 2018-19 and beyond, the revised regulations reduce the number of Standards of Learning tests they need to pass to earn a diploma. The new standards also implement the “Profile of a Virginia Graduate,” a set of expectations that includes increased emphasis on developing critical thinking, creative thinking, communication, collaboration and citizenship skills, in addition to academic achievement in English, mathematics, science and history. In addition, schools would be required to provide opportunities for students to learn about career options aligned with their interests in their own communities and elsewhere.

For any high school credit-bearing course taken in middle school, parents may request that grades be omitted from the students’ transcripts and the student not earn high school credit for the course in accordance with policies adopted by the local school board in a manner and timeline determined for such a request.

All students will be required to complete a minimum of one program of studies offered by Wythe County Schools. Some students may elect to complete more than one program of studies. For example, some students may complete an academic or career/technical program of studies. The programs of study presented in this document meet or exceed State Department of Education minimum requirements for graduation. Successful completion of these programs will serve as a recommendation for students entering the job market or college.

*Students must have met all graduation requirements and be eligible to receive a diploma or a certificate of program completion in order to participate in any Wythe County High School commencement exercises. Wythe County Public Schools do not offer early graduation. There is only one graduation held in the spring for each of our high schools.

NOTICE TO PARENTS AND STUDENTS REGARDING GRADUATION

The Virginia Board of Education approved, in November 2017, revisions to the standards schools must meet for state accreditation and the requirements students must meet to earn a high school diploma. The new diploma requirements would take effect with students entering the ninth grade next fall (class of 2022). Course requirements for both the Advanced Studies Diploma and the Standard Diploma would remain the same but the number of required verified credits would be reduced to five (one each in English reading, English writing, mathematics, science and history/social science). For students entering high school for the first time in 2018-19 and beyond, the revised regulations reduce the number of Standards of Learning tests they need to pass to earn a diploma. The new standards also implement the “Profile of a Virginia Graduate,” a set of expectations that includes increased emphasis on developing critical thinking, creative thinking, communication, collaboration and citizenship skills, in addition to academic achievement in English, mathematics, science and history. In addition, schools would be required to provide opportunities for students to learn about career options aligned with their interests in their own communities and elsewhere.

Students who fail to graduate or achieve the number of verified units of credit required for graduation and who have not reached 20 years of age on or before August 1st of the school year, have the right to a free public education. If the student is one for whom English is a second language, the student has the right to a free public education in accordance with Va. Code §22.1-5.

Standards of Learning and Graduation Requirements

Students and parents are reminded that high school students must earn a specified number of verified credits as well as a specified number of standard units of credit in order to graduate with a Standard or Advanced Studies Diploma. *Note:

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There are a different number of verified credits needed depending on the year the student entered high school for the first time. See charts in the following pages for further explanation.

A standard unit of credit is awarded for a course in which the student successfully completes the objectives of the course and the equivalent of 140 clock hours of instruction. School divisions may have alternative policies that permit waivers of the 140 clock hour requirement. A verified unit of credit is awarded for a course in which the student earns a standard unit of credit and achieves a passing score on a corresponding end-of-course SOL test or a substitute assessment approved by the Board of Education. In certain instances, a school division may award verified credits for demonstrating mastery of course content on performance assessments in lieu of end-of-course SOL tests.

A "verified unit of credit" or "verified credit" is a credit awarded for a course in which a student earns a standard unit of credit and

- (i) achieves a passing score on a corresponding end-of-course SOL test;
- (ii) achieves a passing score on an additional test, as defined in 8VAC20-131-5, as part of the Virginia Assessment Program;
- (iii) meets the criteria for the receipt of a locally awarded verified credit conferred in accordance with board criteria and guidelines as provided in 8VAC20-131-110 B 3 when the student has not passed a corresponding SOL test in English, mathematics, laboratory science, or history and social science;
 - a. To qualify for locally-awarded verified credits, a student must:
 - i. Pass the high school course;
 - ii. Score within a 375-399 scale score range on any administration of the Standards of Learning test after taking the test at least twice; and
 - iii. Demonstrate achievement in the academic content through an appeal process administered at the local level (see Guidance Governing the Use of Locally-Awarded Verified Credits for details).
 - b. Students with credit accommodations are not subject to the limit on the number of locally-awarded verified credits.
 - c. Local school boards must have policies governing procedures used to award locally-awarded verified credit, including the use of a review panel to consider evidence of the student's achievement.
 - d. For students entering the ninth grade for the first time prior to the 2018-2019 academic year:
 - i. No more than three locally-awarded verified credits may be awarded.
 - ii. Locally-awarded verified credits cannot be applied toward an Advanced Studies diploma.
 - iii. Students that are no longer in school who would now be eligible for a locally-awarded verified credit in English or mathematics may now earn a locally-awarded verified credit, provided that all criteria is met.
 - e. For students entering the ninth grade for the first time in the 2018-2019 academic year and beyond:
 - i. No more than one locally-awarded verified credit may be awarded.
 - ii. Locally-awarded verified credits can be applied toward either a Standard or an Advanced Studies diploma.

The requirements for graduation are those in effect by the Virginia Department of Education when the student enters the ninth grade for the first time. Students who enter the ninth grade prior to the 2013-2014 school year have the options of earning a Standard Diploma, Advanced Studies Diploma, or the Modified Standard Diploma (limited to students with disabilities). Students entering their freshman year at the beginning of the 2013-2014 school year and after have the option of earning a Standard or Advanced Studies Diploma.

ACADEMIC DIPLOMA OPTIONS AND REQUIREMENTS

VDOE Original Requirements for Graduation

*Applies to students entering as freshman in 2015, 2016, and 2017 (On-time Graduation Classes of 2019, 2020, 2021)

According to the Standards of Accreditation 8 VAC 20-131-110.B. students may receive up to four locally awarded verified credits in Science and History/Social Science. Beginning with the graduating class of 2012-2013 identified students with disabilities or an ADA 504 Plan, may be eligible for standard diploma accommodations including locally awarded verified credits in English, Math, Science, and Social Studies, or participate in an alternate assessment as prescribed in their IEP and shall demonstrate proficiency on that assessment.

Standard Diploma – VDOE Original Graduation Requirements

*Applies to students entering as freshman in 2015, 2016, and 2017

Discipline Area	Standard Units of Credit Required (for freshman class beginning in 2013-2014 and beyond)	Verified Credits Required (or locally awarded verified credits where appropriate)
English	4	2
Mathematics(1)	3	1
Laboratory Sciences (2,6)	3	1
History and Social Sciences (3,6)	3	1
Health and Physical Education	2	
Foreign Language, Fine Arts, or Career and Technical Education (7)	2	
Economics and Personal Finance	1	
Electives (4)	4	
Student Selected SOL Test Verified Credits (5)		1
Career and Technical Education Credential	√ (8)	
Total	22 (9)	6

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(1) Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I; Geometry; Algebra Functions, and Data Analysis; Algebra II; or other mathematics course above Algebra I approved by the board. (2) Courses completed to satisfy this requirement shall include course selections from at least two science disciplines: earth science; biology; chemistry; or physics as approved by the board. (3) Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or world geography or both. (4) Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality. (5) A student may utilize additional test for earning verified credit in computer sciences, technology, career and technical education, economics, or other areas as prescribed by the board. (6) Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the Board of Education as an additional test to verify student achievement. (7) Earned credits for this requirement shall include one credit in fine or performing arts or career and technical education. (8) Students shall earn a career and technical education credential approved by the Board of Education that could include, but, not limited to the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment. (9) Students shall successfully complete one virtual course, which may be a noncredit-bearing course or a required or elective credit –bearing course that is offered online.

Advanced Studies Diploma – VDOE Original Graduation Requirements

*Applies to students entering as freshman in 2015, 2016, and 2017 (On-time Graduation Classes of 2019, 2020, 2021)

Discipline Area	Standard Units of Credit Required (for freshman class beginning in 2013-2014 and beyond)	Verified Credits Required
English	4	2
Mathematics (1)	4	2
Laboratory Science (2)	4	2
History and Social Science	4	2
Foreign Language (4)	3	
Health and Physical Education	2	
Fine Arts or Career and Technical Education	1	
Economics and Personal Finance	1	
Electives	3	
Student Selected Test (5)		1
Total	26 (6)	9

(1) Courses completed to satisfy this requirement shall include at least three different course selections from among: Algebra I; Geometry; Algebra, Algebra II, or other mathematics courses above the level of Algebra II. The board shall approve courses to satisfy

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this requirement. (2) Courses completed to satisfy this requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics. The Board shall approve courses to satisfy this requirement. (3) Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both. (4) Courses completed to satisfy this requirement shall include three years of one foreign language or two years of two languages. (5) A student may utilize test for earning verified credit in computer science, technology, career or technical education, economics, or other areas as prescribed by the board in 8 VAC 20-131-110.B (6) Students shall successfully complete one virtual course, which may be a noncredit-bearing course, or maybe a course required to earn this diploma that is offered online.

“New Profile of a Graduate” Requirements for Graduation

Applies to students entering as a Freshman in 2018 and beyond (On-time Graduation Classes of 2022 and Beyond)

The revised regulations reduce the number of SOL tests students must pass to earn a high school diploma — while maintaining high expectations for learning in English, math, science and history/social science — and implement the “Profile of a Virginia Graduate,” a set of skills and attributes identified by employers and higher education as critical for success in the workplace and in college.

These expectations are often referred to as the “5 C’s”: creativity, critical thinking, communication, collaboration and citizenship.

The new graduation requirements place increased emphasis on the practical application of learned skills and content knowledge by expanding the use of performance-based assessments for the awarding of verified credits.

In addition, the career-planning component of the new graduation requirements provides the opportunity for students to learn about employment options aligned with their interests in their own communities and elsewhere.

While there is no specific activity that a student must experience (such as an internship, job-shadowing assignment or participation in a career fair) to graduate, school divisions are required to collaborate with local employers to create opportunities for students to learn about the workplace expectations, regardless of their plans after high school.

School divisions also must ensure that students understand and demonstrate civic responsibility and community engagement.

Key points for students and parents to remember about how Virginia’s diploma standards are changing include the following:

- The new graduation requirements are effective with students entering the ninth grade in the fall of 2018 (class of 2022).
- Under the new requirements, the number of required standard credits for a Standard Diploma remains the same (22) but the number of required verified credits is reduced from six to five (one each in English reading, English writing, mathematics, science and history/social science).
- Under the new requirements, the number standard credits required for an Advanced Studies Diploma remains the same (26) but the number of required verified credits is reduced from nine to five (one each in English reading, English writing, mathematics, science and history/social science).
- School divisions, on a local-option basis, may offer an authentic performance-based assessment as an alternative to the English writing SOL test for the awarding of verified credit.
- In history/social science, students may earn the required verified credit by passing an authentic performance-based assessment rather than an SOL test.

Standard Diploma (Class of 2022)		
Subject	Standard Units of Credit Required	Verified Credits Required
English	4	2
Mathematics	3	1
Science	3	1
History/Social Science	3	1
Health & Physical Education	2	
World Language, Fine Arts or Career & Technical Education	2	
Economics & Personal Finance	1	
Electives	4	
TOTAL	22	5

(1) Courses completed to satisfy this Math requirement shall include at least two different course selections from among: algebra I, geometry, algebra functions, and data analysis, algebra II, or other mathematics courses approved by the board to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.

(2) Courses completed to satisfy this Laboratory Science requirement shall include course selection from at least two different science disciplines: earth sciences, biology, chemistry, or physics, or completion of the sequence of science courses required for the International Baccalaureate Diploma and shall include interdisciplinary courses that incorporate Standards of Learning content from multiple academic areas. The board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit.

(3) Courses completed to satisfy this requirement shall include Virginia and U.S. history, Virginia and U.S. government, and one course in either world history or geography or both. The board shall approve courses to satisfy this requirement. Students will participate in Performance Based Assessments to satisfy the requirement of the verified credit.

(4) Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquires a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for either a laboratory science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement.

(5) Per the Standards of Quality, credits earned for World Language, Fine Arts or CTE requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical course credit.

(6) Courses to satisfy the Electives requirement shall include at least two sequential electives as required by the Standards of Quality.

(7) In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or International Baccalaureate course, or (ii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the standard diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.

(8) Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit-bearing course that is offered online.

(9) Students shall be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420 B.

(10) Students shall acquire and demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship in accordance with the Profile of a Virginia Graduate approved by the board.

Advanced Studies Diploma (Class of 2022)

Subject	Standard Units of Credit Required	Verified Credits Required
English	4	2
Mathematics	4	1
Science	4	1
History/Social Science	4	1
World Language	3	
Health & Physical Education	2	
Fine Arts or Career & Technical Education	1	
Economics & Personal Finance	1	
Electives	3	
TOTAL	26	5

- (1) Courses completed to satisfy the Mathematics requirement shall include at least three different course selections from among: algebra I, geometry, algebra II, or other mathematics courses above the level of algebra II. The board shall approve courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit.
- (2) Courses completed to satisfy the Laboratory Science requirement shall include course selections from at least three different science disciplines from among: earth sciences, biology, chemistry, or physics or completion of the sequence of science courses required for the International Baccalaureate Diploma and shall include interdisciplinary courses that incorporate Standards of Learning content from multiple academic areas. The board shall approve additional courses to satisfy this requirement. Per the Standards of Quality, a computer science course credit earned by students may be considered a science course credit.
- (3) Courses completed to satisfy the History and Social Science requirement shall include Virginia and U.S. history, Virginia and U.S. government, and two courses in either world history or geography or both. The board shall approve additional courses to satisfy this requirement. Students will participate in Performance Based Assessments to satisfy the requirement of the verified credit.
- (4) Courses completed to satisfy the World Language requirement shall include three years of one language or two years of two languages.
- (5) In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or International Baccalaureate course or (ii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the advanced studies diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.
- (6) Students shall successfully complete one virtual course, which may be a non-credit-bearing course or a required or elective credit bearing course that is offered online.
- (7) Students shall be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation. Students with an IEP or 504 Plan that documents that they cannot successfully complete this training shall be granted a waiver from this graduation requirement, as provided in 8VAC20-131-420 B.
- (8) Students shall acquire and demonstrate foundational skills in critical thinking, creative thinking, collaboration, communication, and citizenship in accordance with the Profile of a Virginia Graduate approved by the board.

General Education Development Certificates (GED)

In accordance with the provisions of the compulsory attendance law and 8VAC20-30, Regulations Governing Adult High School Programs, students who do not qualify for diplomas may earn a high school equivalency credential. The requirements for the General Achievement Diploma are provided in 8VAC20-20. See your school counselor or principal to discuss guidelines and requirements if a student is eligible for a GED through an Individual Student Alternative Education Plan (ISAEP) program in Wythe County.

Applied Studies Diploma

Requirements for an Applied Studies Diploma. In accordance with the requirements of the Standards of Quality, a student with disabilities who completes the requirements of the student's IEP and does not meet the requirements for other diplomas shall be awarded Applied Studies Diplomas in accordance with state and federal laws and regulations regarding special education. Students who pursue an Applied Studies Diploma shall be allowed to pursue a Standard Diploma or an Advanced Studies Diploma at any time during high school. Such students shall not be excluded from courses or tests required to earn these diplomas.

The [Applied Studies Curriculum Map](#) (PDF) is a set of skills and competencies that IEP teams can use to identify the need for additional instruction that the student will need to achieve their postsecondary goals. These skills are not standards or required to earn the Applied Studies Diploma, but provide guidance to teams in aligning the student's transition goals with the goals outlined in the annual IEP. The Applied Studies Curriculum Map provides a guide in which teachers, students, families, and other team members can identify skills that will have a direct impact on the student's achievement of their post-secondary goals.

Certificate of Program Completion Requirements

Requirements for Certificates of Program Completion. In accordance with the requirements of the Standards of Quality, students who complete prescribed programs of studies defined by the local school board but do not qualify for a Standard Diploma, an Advanced Studies Diploma, or an Applied Studies Diploma shall be awarded Certificates of Program Completion. The requirements for Certificates of Program Completion are developed by local school boards in accordance with the Standards of Quality.

Academic, Career/Technical Diploma Seals Available to Students

Governor's Seal – Awarded to students who complete the requirements for an Advanced Studies Diploma with an average grade of "B" or better, and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement (AP), International Baccalaureate (IB), Cambridge, or dual enrollment courses.

Board of Education Seal – Awarded to students who complete the requirements for a Standard Diploma or Advanced Studies Diploma with an average grade of "A".

Seal of Bi-literacy - The Board of Education's Seal of Bi-literacy certifies attainment of a high level of proficiency by a graduating high school student in one or more languages in addition to English, and certifies that the graduate meets of the following criteria:

1. The Board of Education's Seal of Bi-literacy will be awarded to students who earn either a Board of Education-approved diploma and (i) pass all required End-of-Course Assessments in English reading and writing at the proficient or higher level; and (ii) be proficient at the intermediate-mid level or higher in one or more languages other than English, as demonstrated through an assessment from a list to be approved by the Superintendent of Public Instruction.
2. For purposes of this article, "foreign language" means a language other than English, and includes American Sign Language.

Board of Education's Career & Technical Education Seal

Awarded to students who:

- earn a Standard or Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses
- OR pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association
- OR acquire a professional license in that career and technical education field from the Commonwealth of Virginia.

The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

Board of Education's Advanced Mathematics & Technology Seal

Awarded to students who earn either a Standard or Advanced Studies Diploma and satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; and either

- pass an examination in a career and technical education field that confers certification from a recognized industry, or trade or professional association
- OR acquire a professional license in a career and technical education field from the Commonwealth of Virginia
- OR pass an examination approved by the board that confers college-level credit in a technology or computer science area.

The Board of Education shall approve all professional licenses and examinations used to satisfy these requirements.

Board of Education's Excellence in Civics Education Seal

Awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and

- (i) complete Virginia and United States history and Virginia and United States government courses with a grade of "B" or higher;
- (ii) have good attendance and no disciplinary infractions as determined by local school board policies; and
- (iii) complete 50 hours of voluntary participation in community service or extracurricular activities. Activities that satisfy the requirements of clause (iii) of this subdivision include
 - a. volunteering for a charitable or religious organization that provides services to the poor, sick, or less fortunate;
 - b. participating in Boy Scouts, Girl Scouts, or similar youth organizations;
 - c. participating in Military Science;
 - d. participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or
 - e. participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation shall be deemed to have met this community service requirement.

Board of Education's Seal for Excellence in Science and the Environment

Awarded to students who earn either a Standard Diploma or Advanced Studies Diploma and

- (i) complete at least three different first-level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory science course, each with a grade of "B" or higher;
- (ii) complete laboratory or field-science research and present that research in a formal, juried setting; and
- (iii) complete at least 50 hours of voluntary participation in community service or extracurricular activities that involve the application of science such as environmental monitoring, protection, management, or restoration.

GUIDANCE PROCEDURES AND SERVICES

WCPS Pathway Program

A pivotal portion of our purpose driven curriculum will be the Pathway Program. The Pathway Program is a series of academic pathways that will help structure and focus students' middle and high school coursework. This program is an integral part of our purpose driven curriculum which identifies different academic pathways for our students. These pathways were developed to provide a comprehensive and coordinated program of studies to meet the instructional needs of all students and help them enjoy success after high school. In addition to the six WCPS Pathways, students will be guided towards a career path of their choice based on the 16 Career Clusters developed by the VA Department of Education. It is critical that parents and students communicate with school officials to identify a path and a career cluster that is rigorous and challenging without creating frustration for the students.

The goal of the WCPS Pathway and Career Cluster Programs is to ensure that our experience and course work has a purpose and that our curriculum is preparing students to attend a four-year college, attend a two-year technical college, transition into the workplace or acquire functional life skills. We want students, in conjunction with their parents, to begin formulating an idea of what they want to do after high school. These informed decisions will assist students to register in the appropriate coursework and ultimately enable them to be successful in their post-secondary endeavors.

1. Honors Academy

This program will involve a small number of students, selected from all three high schools, who will demonstrate exceptional academic ability and talent. These students will be enrolled in dual credit classes, will participate as a cohort and will focus on STEM initiatives. These students will be challenged with a rigorous curriculum and is designed for our most advanced students.

2. College Scholars

This program will involve students who have completed most of their high school requirements and who want to focus on gaining college credits. Students will be required to take a specific set of dual-enrollment classes and we will prepare them to enter a four-year college.

3. College Readiness

This program will involve students who plan on attending college, but who are not ready or interested, in dual enrollment credits during high school. We will ensure these students have all of the necessary coursework to successfully enter most two or four-year colleges.

4. Transition to Work

- A. Students who want to transition to work with an Advanced Diploma
- B. Students who want to transition to work with a Standard Diploma - This program is designed for students who possess a clear understanding of what vocation they want to engage in after high school. We will create a MOU with various local businesses to ensure that students are ready to enter the workplace having completed the necessary training and/or obtained the prerequisite certification to begin a job immediately after high school graduation.

5. Career Readiness

This program is designed for students who are focused on earning a certification or license for a specific vocation. Students will enroll in classes at the Technology Center and WCC as appropriate. Consequently, students will register in dual-enrollment vocational courses.

6. Life Skills/Graduation

This program will address students who are struggling with the traditional high school curriculum. These students will focus on functional academics which will help them gain independence, basic job skills, and daily living skills.

WCPS Pathway to Graduation



16 Career Clusters

The US Dept. of Education developed 16 Career Clusters with their own instructional focus and skill requirements clearly defined. The Career Cluster framework is useful for students to help connect their required course work towards a career interest. Within each cluster, there are elective courses that correspond to a collection of educational opportunities to prepare you for your chosen career. For additional information please read the “WCPS College & Career Pathway Planner” publication.



Academic and Career Plan

Beginning with the 2013-2014 academic year, all schools shall begin development of a student's personal Academic and Career Plan for students in the seventh grade that is to be completed by the fall of the student's' eighth-grade year. Beginning with the 2013-2014 academic year, all students who transfer into a Virginia public school after the eighth grade year shall have an Academic and Career Plan developed after enrollment.

The Academic and Career Plan must include but is not limited to:

- A program of study for high school graduation and a postsecondary career pathway based on the student's academic and career interests.
- A review and update, if necessary, before the student enters the ninth and eleventh grades.

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- The signatures of the student, student's parent or guardian and school official(s) designated by the principal.

Additional information may be found on the VDOE website for students' Academic and Career Planning [Virginia Department of Education Academic Career Plan](#)

Students will review his/her WCPS Pathway plan with a school counselor each year. The counselor and career coach programs emphasize career education for all students, promoting students' awareness and/or knowledge of careers, and the consequences of leaving school without marketable skills.

With guidance from School Counselors, it is a goal for all WCPS middle school students to enter high school with the following decisions made:

- if they want to pursue a career and/or college readiness plan;
- the knowledge of which WCPS Pathway they will pursue; and
- an idea of 1 to 3 Career Clusters they would like to explore in high school.

Early College Scholars Program

The Early College Scholars program allows eligible high school students to earn at least 15 hours of transferable college credit while completing the requirements for an Advanced Studies Diploma. The result is a more productive senior year and a substantial reduction in college tuition. Students earning a college degree in seven semesters instead of eight can save an average of \$5,000 in expenses.

To qualify for the Early College Scholars program, the student must:

- Have a "B" or better average;
- Pursuing an Advanced Studies or Advanced Technical Diploma;
- Pass the VCCS entrance exam, and
- Take and complete college level course-work that will earn at least 15 transferable college credits.

Early College Scholars are supported by the Commonwealth College Course Collaborative. The Commonwealth College Course Collaborative defines the subjects high school students can complete and receive college degree credit from participating public and private colleges and universities.

Student Enrollment Requirements

All students shall maintain a full schedule of at least 8 classes per year unless a waiver is granted by the Superintendent of Schools (or designee). Exceptions to this policy shall be limited to the following:

- The student is in an approved work-study cooperative program.
- The student has an IEP or 504 Plan that specifies less than a full day of classes.
- The student is on homebound instruction.
- The student is enrolled in an approved alternative education program requiring less than a full day of instruction.
- The student is a private school or home school student who falls under the provisions of Wythe County School Board Policy JECB.

Transfer Students

Students transferring to a Wythe County high school will be required to meet all requirements for a diploma as prescribed in 8 VAC 20-131-50 except as modified in 8 VAC 20-131-60.

Grade Classification

High school students are classified in a grade according to accumulated units of credit earned in their program(s) of studies.

- Ninth Grade - Promotion from the Eighth Grade
- Tenth Grade - Have earned 6 units of credit
- Eleventh Grade - Have earned 12 units of credit
- Twelfth Grade - Potential to graduate at the end of the regular school year

Wythe County Schools Grading System for Secondary Students

Please note a student's specific course of study may result in the accumulation of more or less weighted credits than students of a different course of study may receive. Consequently, students and parents/guardians should give careful consideration when choosing a course of study as grade point averages, cumulative grade point averages, class rank, scholarships, etc., can be affected.

Earned Credits in Middle School

For any high school credit-bearing course taken in middle school, parents may request that grades be omitted from the student's transcripts and the student not earn high school credit for the course in accordance with policies adopted by the local school board. The deadline for parents to make the request in writing will be no later than the end of the student's ninth grade year. If a parent chooses this option, omitted credits cannot be reinstated and no evidence will be on the transcript of the student having taken the course or why it was omitted. If a verified credit is associated with the course, neither the course nor verified credit will be applied towards meeting high school graduation requirements unless the student retakes the course earning a passing grade and passes the corresponding end-of-course SOL test. For example, if a parent submits a written request to remove the Algebra 1 course their child took in eighth grade, then that course and its corresponding verified credit will be omitted from the student's transcript. If the student wishes to regain an Algebra 1 credit later on in their high school career, then that student will be required to retake the course again along with the Algebra 1 end-of-course SOL test. Students will still be required to take courses to meet requirements for a standard or advanced studies diploma excluding the omitted course(s).

Grading System

Secondary schools will use the following grading system for all courses, except for courses designated as weighted grade courses, as listed below:

Grade	Descriptor	Numeric Average	Quality Points
A	Excellent	94-100	4.00
B	Very Good	86-93	3.00
C	Satisfactory	78-85	2.00
D	Poor/Minimally Acceptable	70-77	1.00
F	Failure	below 70	0.00
I	Incomplete		

Wythe County Schools Grading System for Weighted Grades

Weighted grade courses are those pre-approved courses listed below in which the scope and sequence of the content is more rigorous and requires significantly more work as compared to regular classes. Therefore, students who meet the requirements for these courses will be graded as follows:

GRADE	DESCRIPTOR	NUMERIC AVERAGE	QUALITY POINTS
A	Excellent	94 – 100	5.00
B	Very Good	86 – 93	4.00
C	Satisfactory	78 – 85	3.00
D	Poor/Minimally Acceptable	70 – 77	2.00
F	Failure	below 70	0.00
I	Incomplete		

*Dual Enrollment courses will use the grading scale outlined in each course syllabus.

Listed below are the courses which students may earn weighted grades:

- Advanced English 9, 10, 11, 12
- Dual Credit English 111/112 or higher
- Advanced or Dual Enrollment United States and Virginia History 121/122
- Advanced US and VA Government or Dual Enrollment Political Science 211/212
- Advanced Math/Trigonometry, Advanced Probability and Stats, Dual Enrollment Pre-Calculus 163/164
- Advanced or Dual Enrollment Calculus 271/272
- Dual Credit Anatomy and Physiology
- Physics
- Dual Enrollment Biology 101/102
- Governor’s School Science 11
- Governor’s School Science 12
- Governor’s School Mathematics 11 Governor’s School Mathematics 12

No student attending the Governor’s School may accumulate more weighted credits than are available to students in their home school. Governor’s school students may receive one (1) weighted credit each in junior and senior math and science classes for a total of four (4) to replace the math and science classes not taken at the home school. Similarly, no student may take additional weighted classes in a Dual Enrollment setting. All other weighted classes must be taken at the home high school and shall be made available to all students on an equal basis.

Governor’s school classes are also available to students through Linwood Holton Governor’s School. These virtual courses are taken in an assigned area of the local school building. See a school counselor for course offerings or visit their webpage at [Linwood Holton Governor’s School link](#).

Dual Enrollment

Dual Enrollment courses are college level courses offered to Junior and Senior high school students as a part of their high school curriculum. These courses allow high school students to meet the requirements for high school graduation at the same time they earn college credit. Dual enrollment courses are offered to Wythe County students in a traditional format through the high school classroom, or online courses. Students who want to pursue a nontraditional track to take dual credit courses must obtain prior approval from WCPS. Students and their parents must be advised that a non-traditional track will result in the student paying for their own tuition. Students and their parents must seek prior permission to sign up for these courses by filling out the Non-traditional Dual Enrollment Permission Form one semester prior to enrolling in the non-traditional course. Dual enrollment courses taken outside the WCPS Program of Studies will not be weighted. Dual enrollment courses tend to have prerequisites and placement requirements, check with your school counselor for enrollment options and procedures. *Students may be responsible for all costs associated with college classes deemed to be “extra courses” and not required for high school graduation.

Students are responsible for their own learning and are expected to attend class. Missing class compromises learning. If the number of student absences EXCEEDS twice the number of weekly meetings of the class, the student may be withdrawn from the course. Regular attendance in classes is required for students to get the greatest value from their educational experiences. Please refer to the current WCC Catalog and Student Handbook for additional regulations required for taking college coursework.

Virtual, dual credit and/or AP courses are available for juniors or seniors with a B average through Apex, Virtual Virginia and Elite Learning. Please see a school counselor or visit each of the following websites for more information and a complete listing of available courses:

- Apex Online Learning: www.apexlearning.com/digital-curriculum/courses/catalog
- Virtual Virginia: www.virtualvirginia.org/
- Elite Learning with SVETN: svetn.org/

Prerequisites for Dual Enrollment Classes for College Ready Pathways

- Pass both Reading and Writing EOC SOL Test
- Pursuing Advanced Studies Diploma by participating in a “College Ready” Pathway and course of study
- Must pass VCCS entrance exam

Please note, students are responsible for Dual Enrollment Class tuition if the class is dropped after WCC’s drop deadline unless waived by the superintendent for extenuating circumstances. Students failing to earn a “C” or higher in an approved dual enrollment class may be required to reimburse WCPS for tuition and fees if the course was paid for by WCPS. School counselors will be responsible for insuring all dual enrollment course credit(s) are added to a student’s high school transcript. (Policy JN)

Simultaneous Enrollment (Policy JQ-W)

Simultaneous enrollment provides second semester senior students an opportunity to gain college credit while completing their high school education.

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Students are qualified for participation in simultaneous high school – college enrollment by fulfilling the following criteria:

- continue enrollment in Wythe County Public Schools,
- complete first semester senior year prior to beginning simultaneous enrollment status,
- possess a “C” or better average at the end of the first semester senior year,
- satisfy, by the end of first semester senior year, all the graduation requirements set forth by the
- Virginia Department of Education and Wythe County Public Schools to receive a standard or advanced studies diploma,
- complete Simultaneous High School-College Enrollment application, inclusive of parent/guardian signature for minor students, and receive principal approval prior to enrollment in an accredited college or university.
- provide to their high school administration proof of full-time enrollment in an accredited college or university, and
- remain enrolled in their high school as students participating in independent study courses which mirror the courses in which the students are enrolled in the accredited college or university.

*Please see a school counselor for more information.

General Education and Associate Degree Partnership with Wytheville Community College

Wythe County Public Schools and Wytheville Community College have partnered to provide students the opportunity to complete a General Education Certificate or an Associate of Arts Degree program concurrently with their high school diploma. To earn the General Education Certificate or Associate of Arts Degree, the student would begin coursework during the summer after their sophomore year; thus, careful planning between school counselors, students, and parents/guardians will need to occur early during the student’s sophomore year. Please see your school counselor for more details of these two programs. *Parents and students must agree and commit to concurrent enrollment by the end of their sophomore year. In addition students will be responsible for all college expenses during summer enrollment of these two programs.

The following dual enrollment courses may be available pending student enrollment and availability of credentialed instructors:

Dual Enrollment Course Offerings at the High School

- BIO 101/102 General Biology I-II
 - BIO 141/142 Human Anatomy & Physiology
 - ENG 111/112 College Composition I-II
 - ENG 241/242 Survey of American Literature I-II
 - HIS 121/122 United States History I-II (online only)
 - MTH 271/272 Calculus I-II
 - PLS 211/212 US Government I-II (online only)
 - BUS 241/242 Business Law
 - MTH 163/164 Pre-Calculus I-II
- Elite learning courses (asynchronous on-line courses): [SVETN](#)
 - Linwood Holton Governor’s School (virtual courses): [Linwood Holton Governor’s School](#)
 - Approved Virtual Learning Course Offerings at High School: [Virtual Virginia Learning Courses](#)

Dual Enrollment Course Offerings at Wythe County Technology Center

PNE 141/142 Nursing Skills I & II
PNE 155 Body Structure & Function
PNE 173 Pharmacology for Practical Nurses
MAC 101 Machine Shop Operations

MAC 102 Machine Shop Practices
ADJ 100 Survey of Criminal Justice
ADJ 107 Survey of Criminology

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Students who elect to take classes outside of the course offerings located on the campuses of WCPS high schools will be responsible for all costs and transportation incurred by this choice. These course will not be considered weighted courses. Prior written approval must be obtained by the building principal.

Summer School

Summer School is considered an extension of the previous academic year and begins after the regular school term ends. Dates and times will be announced. If a student fails a class with a grade of 60 or higher, they are eligible to re-take the course for half time (70) hours. New courses require full clock hours for credit (140 hours). Summer school students are required to take all applicable SOL End-of-Course Tests.

CAREER & TECHNICAL EDUCATION CREDENTIAL OFFERINGS

A goal of Wythe County Public Schools is to integrate academic, career, and technical education studies. Some of these courses are available at the individual high school and some at the Wythe County Technology Center. Integrated studies will make three specific contributions to students:

- improve the educational and employment prospects of all students;
- provide rigorous academic courses with career and technical courses;
- strengthen the partnership between career and technical education and academic education.

Wythe County Public Schools career and technical programs meet the following minimum requirements:

- meet or exceed state board minimum requirements for high school graduation;
- prepare students to enter related employment fields and provide students with the knowledge and skills necessary to continue to learn in a work or educational setting;
- specify minimum levels of achievement in reading, mathematics, and the sciences;
- require students to complete at least three credits each in mathematics and science;
- prescribe a coherent sequence of career and technical education and academic courses for grades 9 through 12.

The State Board of Education has approved selected industry certification, state licenses, and occupational competency assessments for use in awarding student-selected verified credit in approved career and technical education courses or course sequences. Wythe County is currently offering industry certification, state licenses, and occupational competency in the following categories:

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Course of Department	Industry Certification, Licensure, or NOCTI Credential Number	Credential	Testing Agency
Available to all CTE Courses	9303	Workplace Readiness Skills for the Commonwealth Examination	Career and Technical Education Consortium of States (CTECS)
Agriculture	3063	Production Agriculture Assessment	NOCTI
Agriculture	1227	Animal Systems Assessment	NOCTI
Agriculture	1228	Natural Resource Systems Assessment	NOCTI
Agriculture	3103	Small Animal Science and Technology Assessment	NOCTI
Agriculture	9248	Private Applicator Certification	Virginia Cooperative Extension
Agriculture	9050	Commercial Pesticide Applicator Certification Examinations:	Virginia Department of Agriculture and Consumer Services (Extension Office)
Agriculture	7426	Conservation Assessment	National Occupational Competency Testing Institute (NOCTI)
Agriculture	9528	Meat Evaluation Certification Examination (must have student subscriptions)	American Meat Science Association (exam is administered by iCEV)
Agriculture	9526	Fundamentals of Animal Science Certification (must have student subscriptions)	iCEV
Military Science	9226	Armed Services Vocational Aptitude Battery Exam	Armed Services Vocational Aptitude Battery Exam
Automotive Technology	9190	NA3SA/Automatic Transmission/Transaxle	National Institute for Automotive Service Excellence/ NATEF
Automotive Technology	9191	NA3SA/Brakes	National Institute for Automotive Service Excellence/ NATEF
Automotive Technology	9192	NA3SA/Electrical/Electronic Systems	National Institute for Automotive Service Excellence/ NATEF

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Course of Department	Industry Certification, Licensure, or NOCTI Credential Number	Credential	Testing Agency
Automotive Technology	9193	NA3SA /Engine Performance	National Institute for Automotive Service Excellence/ NATEF
Automotive Technology	9194	NA3SA/ Engine Repair	National Institute for Automotive Service Excellence/ NATEF
Automotive Technology	9195	NA3SA/ Heating and Air Conditioning	National Institute for Automotive Service Excellence/ NATEF
Automotive Technology	9196	NA3SA/Manual Drive Train and Axles	National Institute for Automotive Service Excellence/ NATEF
Automotive Technology	9201	NA3SA/Suspension and Steering	National Institute for Automotive Service Excellence/ NATEF
Automotive Technology	9513	ASE Student Certification: Automotive Service Technology	National Institute for Automotive Service Excellence/ NATEF
Automotive Technology	9443	ASE Student Certification: Maintenance and Light Repair	National Institute for Automotive Service Excellence/ NATEF
Building Trades	9509	International Code Council Certificates of Achievement Examinations: Pass any one exam	: International Code Council
Building Trades	9564	Core: Introductory Craft Skills Entry-Level Assessment:	National Center for Construction Education & Research (NCCER)
CIS	9468	MOS Access Examination: Microsoft Office 2013/Certiport	Microsoft
CIS	9463	MOS Word Examination: Microsoft Office 2013/Certiport	Microsoft
CIS/Digital Applications	9465	MOS PowerPoint Examination: Microsoft Office 2013/Certiport	Microsoft
CIS/Digital Applications	9092	MOS Outlook Examination: Microsoft Office 2013 /Certiport	Microsoft

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Course of Department	Industry Certification, Licensure, or NOCTI Credential Number	Credential	Testing Agency
CIS/Digital Applications	9464	MOS Excel Examination: Microsoft Office 2013/Certiport	Microsoft
CIS	9488	MOS Excel Expert Level (must pass parts 1 & 2): Microsoft Office 2013/Certiport	Microsoft
CIS	9487	MOS Microsoft Office Expert 2013/Certiport (must pass both Word & Excel at expert levels)	Microsoft
CIS	9489	MOS Word Expert Level (must pass parts 1 & 2): Microsoft Office 2013/Certiport	Microsoft
Cosmetology	9057	Cosmetology State Licensure	Va. Board of Barbers and Cosmetology
Cosmetology	3082	Cosmetology Assessment/NOCTI	NOCTI
Criminal Justice	9324	Skills-USA: Criminal Justice and CSI Examination	Skills USA
Criminal Justice	4181	Criminal Justice Assessment	National Occupational Competency Testing Institute (NOCTI)
Culinary Arts	9130	Pro Start Program Certification Level 1	Ed. Foundation of the National Restaurant Association
Culinary Arts	9131	Pro Start Program Certification Level 2	Ed. Foundation of the National Restaurant Association
Economics and Personal Finance	9186	W!SE Financial Literacy Certification:	Working in Support of Education (W!SE)
Engineering	9315	Engineering Technology Examination	Skills USA
Horticulture	9073	Greenhouse Operators	Va. Flower Growers Association
Marketing	9122	NRF Customer Service Examination	National Retail Federation Foundation
Advance Marketing	9122	NRF National Retail Professional Certification in Customer Service	National Retail Federation Foundation

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Course of Department	Industry Certification, Licensure, or NOCTI Credential Number	Credential	Testing Agency
Practical Nursing	4162	Nursing Assisting Assessment:	National Occupational Competency Testing Institute (NOCTI)
Practical Nursing	9124	Nurse Aide Examination	Va. Board of Nursing
Computer Aided Design	4973	CAD Assessment	NOCTI
Computer Aided Design	9318	Skills USA Technical Drafting	Skills USA
Computer Aided Design	9338	Certified SOLIDWORKS Associate Examination	SOLIDWORKS Corporation
Precision Machining Technology	4152	Precision Machining Assessment	NOCTI
Precision Machining Technology	9115	NIMS Measurement, Materials, & Safety Skills, Level 1: National Institute for Metalworking Skills, Inc.	National Institute for Metalworking Skills (NIMS)
Family and Consumer Science	9227	AAFCS Broad Field Family and Consumer Sciences Examination	AAFCS
Veterinary Science	9534	Veterinary Medical Applications Certification Examination	iCEV
Welding	9335	Welding Examination	Skills USA

*Industry Certification is subject to change based on local industry needs.



High School Course Catalog 2019-2020

* Courses may vary depending on High School *

Required Core Course Credits

ENGLISH DEPARTMENT

Original Standard Diploma: English 9, 10, 11, 12

Original Advanced Diploma: English 9, 10, 11, 12

Verified Credit for Both Diplomas (including Original Graduation Requirements and Profile of a Graduate Requirements): EOC Writing (Performance Based Assessment) and EOC Reading SOL Test

Foundations of English (1515)

Grade level: 9, 10, 11, 12

Credit: elective credit

Pathway: 4, 5, 6

Preparatory or supporting course for English 9, 10, 11, 12

Foundations of English students will be immersed in reading and writing that will accelerate the development of their literacy skills. Through the use of high interest fiction and non-fiction texts, students will develop their reading fluency, comprehension and vocabulary so reading and writing become easier and enjoyable. Students will also work on organization, study skills, and test taking strategies.

English 9 (1130)

Grade level: 9

Credit: 1

Pathway: 4 & 5

English 9 is an integrated study of literature, composition, and grammar. Students will also present dramatic readings of literary selections and continue to develop proficiency in making planned oral presentations. Students will critique significant literary works from a variety of cultures and eras. Students' writing will encompass narrative, literary, expository, and technical forms, emphasizing the rules of Standard English. They will use word processors, electronic databases, and a standard style sheet method to cite reference sources. Applied communication skills will be introduced.

Advanced English 9 (1130A)

Grade level: 9

Credit: 1

Pathway: 1, 2, 3, 4

Prerequisites: English 8 with a grade average of "B" or greater or advanced English 8 with a grade average of "C" or greater.

Advanced English 9 is designed for highly motivated students. The students will utilize higher level thinking skills. Mastery assignments will include narrative, literary, expository, and technical writings. Proofreading, editing, and revising for clarity and grammatical correctness will be emphasized.

English 10 (1140)

Grade level: 10

Credit: 1

Pathway: 4 & 5

Prerequisites: English 9 or Advanced English 9

English 10 increases the students' knowledge of the world through emphasis on world literature. Students will read and critique short stories, novels, drama, and poetry from a variety of eras and cultures, including those studied in world geography. Students will analyze printed consumer information, develop reading analysis skills, and utilize problem-solving strategies. Students will produce well-organized expository papers and workplace writing which conform with the rules of standard English. They will improve their research skills by using available technology. In all facets of study, students will participate in small-group learning activities.

Students will begin the formal process of developing their Writing e-portfolios to satisfy the state requirement of a EOC Writing Performance Based Assessment Test to earn a verified credit for graduation.

Advanced English 10 (1140A)

Grade level: 10

Credit: 1

Pathway: 1, 2, 3, 4

Prerequisites: English 9 with a grade average of "B" or greater or Advanced English 9 with a grade average of "C" or greater.

This course is a continuation of Advanced English 9. It is designed for the highly motivated and highly achieving student. English 10 increases the students' knowledge of the world through emphasis on world literature. Students will read and critique short stories, novels, drama and poetry from a variety of eras and cultures, including those studied in world geography. Mastery writing skills that may be included in this course are expository essay, descriptive essay, narrative essay, persuasive letter to the editor, creative writing (poetry) and critical review.

Students will begin the formal process of developing their Writing e-portfolios to satisfy the state requirement of a EOC Writing Performance Based Assessment Test to earn a verified credit for graduation.

English 11 (1150)

Grade level: 11

Credit: 1

Pathway: 4&5

Prerequisites: English 10 or Advanced English 10

English 11 is a survey of American literature with an in-depth analysis of the works of major authors. Students will develop writing skills through formal and informal essays related to the literature, critical reviews of supplemental reading, and the development of a research paper. Sentence expansion, word usage, and vocabulary are emphasized, and mechanics are stressed. Students will read technical literature critically, as well as American literature, and will write technically for a publication.

Requires a Standards of Learning end-of-course (EOC) assessments (tests).

- **Students will be required to take the EOC Reading SOL Test upon completion of the English 11 course. They will also be required to finalize their EOC Writing Performance Based Assessment to obtain a verified credit in writing by completing their Writing e-portfolio.**

Advanced English 11 (1150A)

Grade level: 11

Credit: 1

Pathway: 1, 2, 3, 4

Prerequisites: English 10 with a grade average of “B” or greater or Advanced English 10 with a grade average of “C” or greater.

Advanced English 11 is designed for students who demonstrate a high degree of motivation and achievement. Students will read and critique non-fiction, short stories, novels, drama and poetry reflecting their country’s literary and cultural history. They will write a variety of forms with an emphasis on persuasion and research. Correct grammar, organization, and mechanics will be stressed in the writing.

Requires a Standards of Learning end-of-course (EOC) assessments (tests).

- **Students will be required to take the EOC Reading SOL Test upon completion of the English 11 course. They will also be required to finalize their EOC Writing Performance Based Assessment to obtain a verified credit in writing by completing their Writing e-portfolio.**

English 12 (1160)

Grade level: 12

Credit: 1

Pathway: 4 & 5

Prerequisites: English 11 or Advanced English 11

This course concentrates on English literature and composition. Poetry, drama, and short fiction from the Anglo-Saxon to the Twentieth Century Periods will be studied. Advanced grammar study supplements the writing of compositions. Literary analysis and persuasion and logic will be included in compositions and oral communications. Grammar and mechanics are reviewed, and vocabulary is continually emphasized. Grammar and composition will also be studied with emphasis on revision for accuracy and clarity of technical writing. This class is designed to prepare students for post-secondary education or the workplace.

Advanced English 12 (1160A) (Dual Enrollment English 111/112 (WCC) (1160D)

Grade level: 12

Credit: 1

Pathway: 1, 2, 3 (for 1160A); Pathway: 1 & 2 (for 1160D)

Prerequisites: English 11 with a grade average of “B” or greater or Advanced English 11 with a grade average of “C” or greater. Qualifying score on Wytheville Community College placement test. Students must have passed the EOC English Reading and Writing Tests to be eligible for Advanced or DE English.

In Advanced English/English 111/112, students will write descriptive, narrative, expository, analytic, and persuasive essays. Students will also study major works of literature. This class is the equivalent of a college freshman English class.

DE American Literature (1165D) (Dual Enrollment English 241/242 (WCC)

Grade level: 12

Credit: 1

Pathway: 1, 2

Prerequisites: ENG 111/112

American Lit is a college course offered to highly motivated high school seniors. Students who successfully complete this WCC course will receive one (1) high school credit and four (4) college credits for each semester. This course examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national

literature. Involves critical reading and writing. This class is taught as a hybrid course with both an in-person instructor as well as additional online learning components.

Local English Electives

Photojournalism I, II, III (Yearbook) (1215) (1216) (1217)

Grade level: 9, 10, 11, 12

Credit: 1 each level

Prerequisites: Pass English 8, 9, 10, 11 (as appropriate) and qualify on a scored interview.

This course is designed to teach students the fundamentals of journalism, including the development of mass media, the role of the journalist in society, and the function of the high school journalist. The second and third levels are designed to give students practical experience in school publication as an extension of the knowledge they gained in Photojournalism I. Emphasis will be placed on copyrighting, layout, design, editing, marketing, and distribution.

Speech Applications (Drama I) (01395)

Grade Level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

Speech Application class is an introductory course in public speaking and theater. Students are coached on how to appear before groups, how to prepare and organize speeches, and how to develop a comfortable stage presence through participation in a class production.

Speech Production (Drama II)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: Speech Applications (Drama I)

Theatrical Production is designed for the student with previous experience in Drama. Students develop their acting ability through the study of different acting theories. The class works on different productions to present as class projects. All aspects of the theater are covered in the productions. Later in the year the students work on group projects that involve the study of the evolution of the theater, from the Greeks and Romans, to contemporary playwrights. To complete the year, students design and build a set for the spring production to gain experience in stage craft.

Forensics (ENG1448)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

Students develop their public speaking skills by examining the strategies and agendas present in delivery of impromptu, extemporaneous, and dramatic speaking. Students write, prepare, and present oral presentations with emphasis on the argument. Students participate, analyze, and critique dramatic productions and individual dramatic interpretations in classroom, live theater, and media venues.

Advanced Composition (01177)

Grade Level: 11, 12

Credit: 1

Prerequisites: The student shall have made a "C" or greater in either English 10 or Advanced English 10 or have the recommendation of the instructor.

This course emphasizes different writing assignments including descriptive, comparison/contrast, process or how-to precis, formal and informal essays, literary analysis, and poetry, reader response, journals, short stories, and research. Students must edit and revise for grammatical correctness. As a culmination, students will produce a booklet of class work.

Appalachian Studies (2315)

Grade level: 9, 10, 11, 12

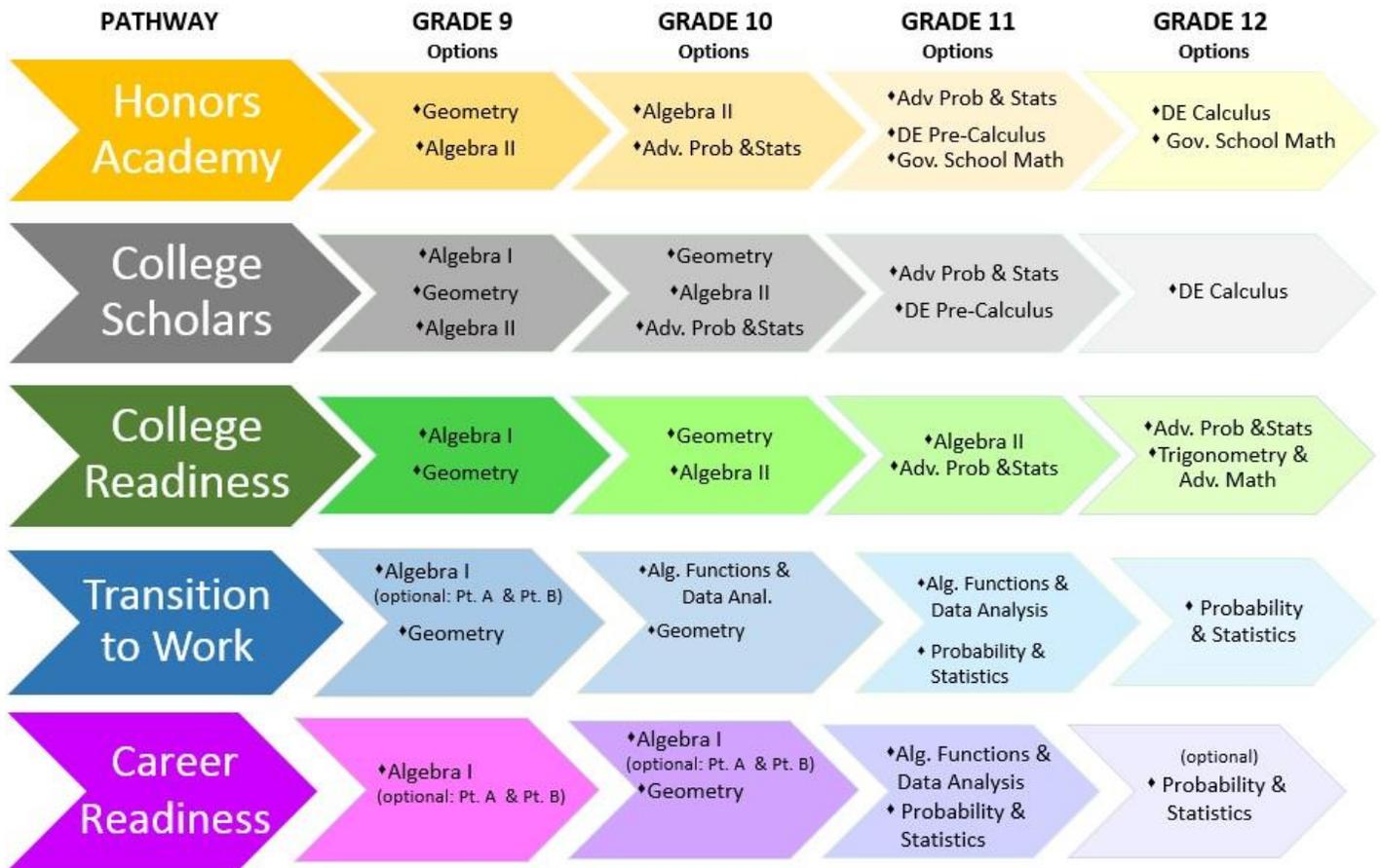
Credit: 1

This course concentrates on the Appalachian region through a study of the literature and culture of the area. Appalachian folklore and history will be studied through the poetry and prose of the region. Literary analysis, research, expository and narrative writing will be incorporated throughout the course. As a culmination, students will complete projects involving the community and/or other schools.

Additional online English Classes are also available by contacting your school counselor.

MATHEMATICS DEPARTMENT

WYTHE COUNTY PUBLIC SCHOOLS Math Course Map



Students and parents are encouraged to discuss students' math sequence options with their math teachers and school counselors. The above chart is merely a guide to view what math options are available each year. Students are encouraged to take at least one math course per year. Taking more than one math class a semester is discouraged. Students interested in attending either a 2-year or 4-year college or university are strongly encouraged to take advanced math courses all throughout their high school career to insure college readiness. Students who wish to transition into the workforce right after high school may elect to forego math classes their Junior and/or Senior year depending on the career path they have selected. Depending on students' pathways and career choices, they may wish to pursue advanced math or dual enrollment course to be college ready; or they may wish to pursue other industry courses to obtain career readiness skills.

Note: For freshman entering high school in 2018 and beyond, per the Standards of Quality, a computer science course credit earned by students may be considered a mathematics course credit. *WCPS will make adjustments to the Math

WYTHE COUNTY PUBLIC SCHOOLS
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Course Map when as we receive additional guidance from the VDOE on the purpose and direction of this new course. This course is tied to SOQ funding.*

Original Standard Diploma: Algebra 1 and two additional math courses above Algebra 1

Verified Credit for students entering as freshman in 2015, 2016, and 2017: 1 EOC Math SOL Test

PROFILE OF A GRADUATE STANDARD DIPLOMA: Algebra 1 and two additional math courses above Algebra 1

Verified Credit for Profile of Graduate for students entering as Freshman in 2018 and beyond: 1 EOC Math SOL Test

*Students earning Algebra I course credit in 8th Grade will be required to take an EOC math SOL test in high school

Original Advanced Diploma: Algebra 1 and three additional math courses above Algebra 1

Verified Credit for students entering as freshman in 2015, 2016, and 2017: 3 EOC Math SOL Tests

PROFILE OF A GRADUATE Advanced Diploma: Algebra 1 and three additional math courses above Algebra 1

Verified Credit for Profile of Graduate for students entering as Freshman in 2018 and beyond: 1 EOC Math SOL Test

*Students earning Algebra I course credit in 8th Grade will be required to take an EOC math SOL test in high school

Foundations of Algebra (3199)

Credit: elective credit

Pathway: 4 & 5

Foundations of Algebra students will be immersed in Algebra in a manner that will accelerate the development of their math literacy skills. Through the use of high interest materials and methods, students will develop their math fluency, comprehension and logic so math becomes easier and enjoyable. This course is basically a review type Algebra class that focuses on the primary foundations of a basic Algebra course. Its curriculum sets the groundwork for the Virginia SOL test in Algebra as it is designed to not only revisit the basic concepts or foundations of Math, but will improve student skills that are necessary for success across the math curriculum. Student assessments will be used to customize student learning so that the student will be able to pass the appropriate SOL tests and the remaining math course requirements.

Algebra I Part I (3131) - Part II (3132)

Grade level: 9, 10, 11

Credit: 1, 1

Pathway: 4 & 5

Prerequisite: Pre-Algebra, if applicable

Algebra I - Part A is the first year of a two-year Algebra I sequence. It employs an interactive, workplace - centered approach to teaching algebra concepts. Ideal for students who are contextual learners, Algebra I - Part I teaches abstract concepts through concrete experiences.

Algebra I - Part B is the second year of a two-year Algebra I sequence. It employs an interactive, workplace-centered approach to teaching algebra concepts. Ideal for students who are contextual learners, Algebra I - Part II teaches abstract concepts through concrete experiences. Algebra concepts are introduced, practiced, and applied in the context of the workplace. Successful completion of this course will result in the earning of an Algebra I credit.

Requires a Standards of Learning End-of-Course assessment (test).

Algebra I (3130)

Grade level: 8, 9, 10, 11, 12

Credit: 1

Pathway: 4 & 5

Prerequisite: Pre-Algebra or Foundations of Algebra

This course includes types of numbers, algebraic vocabulary, properties and operations of numbers, simplifying expressions, solving equations and inequalities, and graphing. Finding and using prime factors, square roots, repeating decimals, as well as using polynomials, rational expressions, and radicals are also part of this course. Mastery of graphing, solving equations with two variables, and solving quadratics is required.

Requires a Standards of Learning end-of-course assessment (test).

Algebra, Functions, and Data Analysis (3134)

Grade level: 9, 10, 11, 12

Credit: 1

Pathway: 4 & 5

This course is designed for students who have successfully completed the standards for Algebra I. Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design and implementation, and analysis of data.

Geometry (3143)

Grade level: 9, 10, 11, 12

Credit: 1

Pathway: 1, 2, 3, 4, 5

Prerequisite: Algebra I

The geometry course is a one-year mathematics course that includes both plane geometry and three-dimensional geometry. The course is considered necessary to demonstrate a reasonable knowledge of mathematics for students who plan to pursue a college education. Simple algebraic equations are integrated into the course and presented as a means of solving some geometry problems. Geometric proofs and problem-solving develop analytical reasoning skills and improve the ability to apply logic to analysis of problems.

Students earning Algebra I course credit in 8th Grade will be required to take an EOC math SOL test in high school.

Algebra II (3135)

Grade level: 9, 10, 11, 12

Credit: 1

Pathway: 1, 2, 3,4

Prerequisites: Algebra I; Geometry

Algebra II is recommended course for students seeking the Advanced Studies Diploma and for those students planning a higher education in math or science. Concepts of Algebra I are reviewed and strengthened. Emphasis will be placed on the study of complex numbers, coordinate geometry, linear systems, functions, conic sections, logarithms, and an introduction to progressions and series.

Students earning Algebra I course credit in 8th Grade will be required to take an EOC math SOL test in high school.

Probability and Statistics (3190)

Grade level: 11, 12

Credit: 1

Pathway: 4 & 5

Prerequisites: Successful completion of 2 credit bearing math classes.

This course is designed to meet the needs of both college preparatory and vocational/technical students who have an interest in the numerical representation and analysis of everyday occurrences. This will include, but not be limited to, applications in sports, business and industry, the political arena, the social sciences, agriculture, and medicine. Additionally, students will be given the opportunity to develop and utilize sampling and testing techniques in the areas listed above.

Advanced Probability and Statistics (3190A)

Grade level: 10, 11, 12

Credit: 1

Pathway: 1, 2, 3

Prerequisites: Algebra I, Geometry, Algebra II

This course is designed to meet the needs of both college preparatory and vocational/technical students who have an interest in the numerical representation and analysis of everyday occurrences. This will include, but not be limited to, applications in sports, business and industry, the political arena, the social sciences, agriculture, and medicine. Additionally, students will be given the opportunity to develop and utilize sampling and testing techniques in the areas listed above.

Trigonometry and Advanced Mathematics (3160)

Grade Level: 11, 12

Credit:1

Pathway: 1, 2, 3

Prerequisites: Algebra I, Geometry, Algebra II

Course will cover all the major topics of plane trigonometry. Real life applications of trigonometry are distributed throughout the course. Attention is also, given to establishing connections between trigonometry and other areas of mathematics, particularly algebra and geometry.

Dual Enrollment Math for Juniors

– **Mathematical Analysis/Pre-Calculus (3162D)**

– **Dual Enrollment Pre-Calculus 161-162**

Grade level: 11, 12

Credit: 1

Pathway: 1 & 2

Prerequisites: Algebra II with a grade average of “C” or greater. Qualifying score on Wytheville Community College placement test.

This course presents college algebra, matrices, and algebraic, exponential, and logarithmic functions in the first semester. The second semester presents trigonometry, analytic geometry, and sequences and series. Upon successful completion of the course, students will earn high school credit and can earn college credit by passing with a grade of “C” or greater.

Dual Enrollment Math for Seniors

- **Fundamental of Statistics 245 (WCC) (3177D)**
- **Dual Enrollment Calculus 261**

MTH 245 Statistics I:

Grade level: 12

Credit: 1

Pathway: 1 & 2

Prerequisites: Pre- Calculus with a grade average of “C” or greater. Qualifying score on Wytheville Community College placement test.

Presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypothesis testing, correlation, and linear regression.

WCC Prerequisite(s): Placement or completion of MTH 154 Quantitative Reasoning; or MTH 161 Precalculus I or equivalent with a grade of C or better.

MTH 261 Calculus

Grade level: 12

Credit: 1

Pathway: 1 & 2

Prerequisites: Pre- Calculus with a grade average of “C” or greater. Qualifying score on Wytheville Community College placement test.

This course presents analytic geometry and the calculus of algebraic and transcendental functions including the study of limits, derivatives, differentials, and introduction to integration along with their applications. Upon successful completion of the course, students will earn high school credit and can earn college credit by passing with a grade of “C” or greater.

SCIENCE DEPARTMENT

ORIGINAL VDOE Standard Diploma: 3 Science Classes Earth Science and two additional science courses. Course selections must be from at least two different science disciplines: earth sciences, biology, chemistry, or physics

Verified Credit for students entering as freshman in 2015, 2016, and 2017: 1 EOC Biology Science SOL Test. Any additional EOC Science SOL tests may count as a student selected test.

ORIGINAL Advanced Diploma: 4 Science Classes Earth Science and three additional science courses. Course selections must be from at least two different science disciplines: earth sciences, biology, chemistry, or physics

Verified Credit for students entering as freshman in 2015, 2016, and 2017: 2 EOC Science SOL Tests *1 must be Biology*. Any additional EOC Science SOL tests may count as a student selected test.

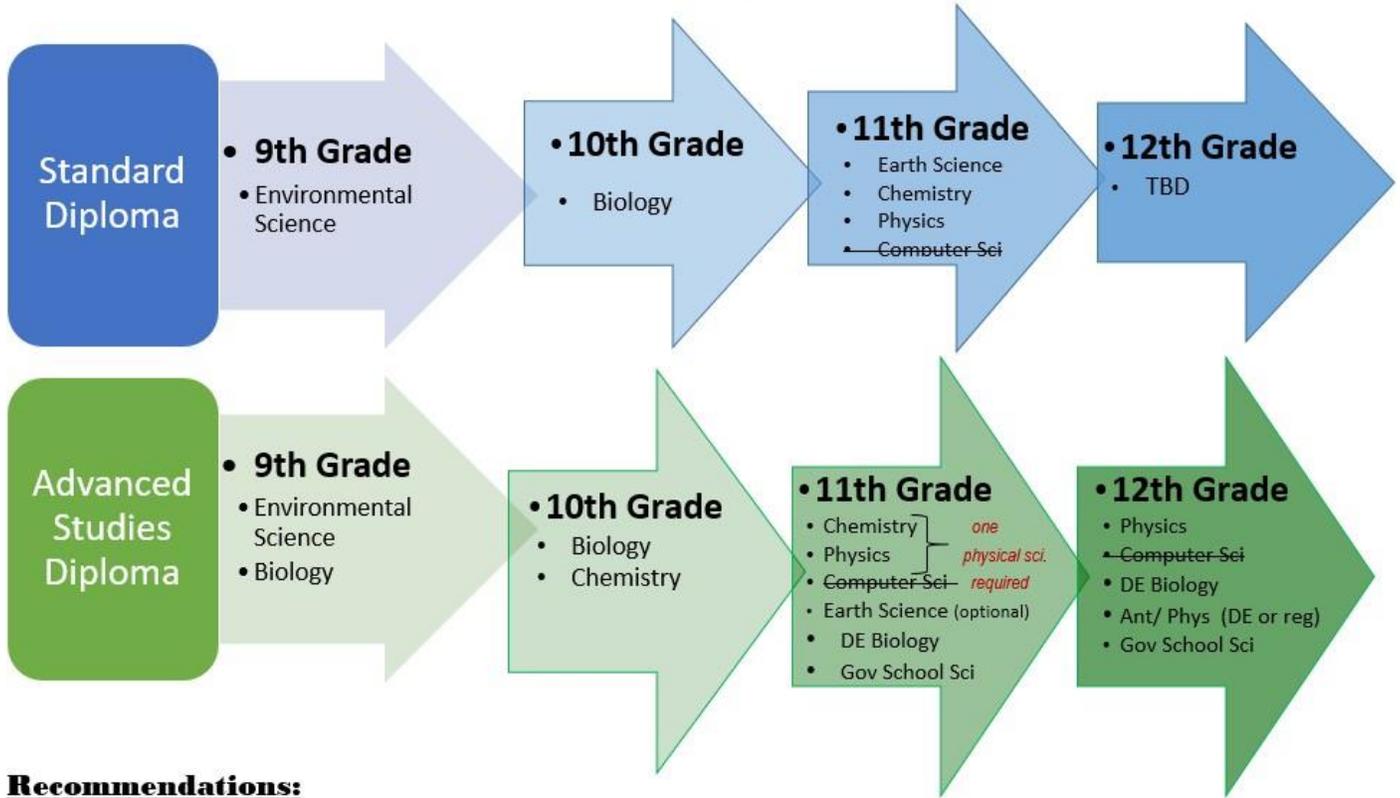
“PROFILE OF A GRADUATE” Standard Diploma: 3 Science Classes Earth Science and two additional science courses. Course selections must be from at least two different science disciplines: earth sciences, biology, chemistry, or physics.

Verified Credit for Profile of Graduate for students entering as freshman in 2018 and beyond: 1 EOC Biology Science SOL Test.

“PROFILE OF A GRADUATE” ADVANCED Diploma: 4 Science Classes Earth Science and three additional science courses. Course selections must be from at least three different science disciplines: earth sciences, biology, chemistry, or physics.

Verified Credit for Profile of Graduate: as freshman in 2018 and beyond: 1 Biology EOC Science SOL Test

New Science Course Sequence Chart



Recommendations:

- Students in Pathway I who are pursuing Governor’s School will need to double-up Science their 9th or 10th Grade year.
- Students in the Nursing Program or a Medical Career Cluster will need to take Chemistry, DE Bio, and Anat/Physiology if possible.

Environmental Science (3003)

Grade level: 9, 10, 11, 12
 Credit: 1
 Pathway: 1, 2, 3, 4, 5

The purpose of the new Environmental Science course is to provide foundational content that will prepare students for either Earth Science I or Biology I while also including aspects of other disciplines such as civic engagement, mathematics, and engineering. The goal of the course is to provide the students with the skills and content necessary for them to analyze current and future environmental issues, both natural and man-made, through a critical lens and to provide a platform to make informed decisions. This course will provide students the opportunity to learn environmental concepts in depth and build on the concepts currently embedded in the 2010 Science Standards of Learning.

The new Environmental Science course, may fulfill either an Earth Science or Biology requirement towards graduation.

There is no state mandated standardized assessment aligned to the new Environmental Science course.

Biology (4310)

Grade level: 9, 10, 11, 12

Credit: 1

Pathway: 1, 2, 3, 4, 5

Biology is the study of life and the organization of living systems. Biology begins with the study of the simplest forms of living things, and continues to more complex living systems. Major concepts studied are: the chemistry of life; cell parts and functions; mitosis, meiosis; genetics; classification systems; and a survey of the Plant, Animal, Fungi, Monera, and Protist kingdoms. Students will be provided alternatives to animal dissection techniques pursuant to the Code of Virginia 22.1-200.01.

Biology Standards of Learning end-of-course assessment is required by all students in VA.

Earth Science (4210)

Grade level: 9, 10, 11, 12

Credit: 1

Pathway: 1, 2, 3, 4, 5

Earth Science connects the study of the Earth's composition, structure, processes, and history, its atmosphere, fresh water, and oceans, and its place in the universe. This course emphasizes contributions to the development of scientific thought concerning earth and space. Major topics of study include astronomy, geology, meteorology, and oceanography.

Requires a Standards of Learning end-of-course assessment.

Earth Science II: Geology (4240)

Grade level: 10, 11, 12

Credit: 1

Pathway: 3, 4, 5

Geology is a second level Earth Science course designed to be a more in-depth treatment of geology concepts presented in introductory Earth Science. Topics of study include but are not limited to plate tectonics theory; interrelationships between humans and the geological environment that affect ground water resources; runoff and erosion; waste disposal; energy resources and food production; time/space relationships in the earth record; and geomorphology.

Earth Science II: Advanced Survey of Earth Science Topics (4220)

Grade Level: 10, 11, 12

Credit: 1

Pathway: 3, 4, 5

Prerequisites: Earth Science I and Biology

This course provides an advanced survey of earth science topics chosen from oceanography, geology, astronomy, meteorology, and environmental science. This course enables students to understand and appreciate their environment (both natural and man-made), and increase knowledge about the Earth and its place in the universe.

Course description moved up to match the new sequence

Chemistry I (4410)

Grade level: 10, 11, 12

Credit: 1

Pathway: 1, 2, 3

Prerequisites: Algebra II or current enrollment in Algebra II

Recommendation: Average of “C” or greater in Algebra I and Lab Science. Chemistry is a rigorous, academic lab science that requires an End-of-Course SOL Test. Students are strongly encouraged to discuss their academic strengths and weaknesses with their counselor and parents before enrolling in this course.

Chemistry is the branch of science that studies the interaction of matter and energy. The characteristics of elements and compounds and how they interact are studied. Problem solving, the practical use of calculators, use of technology (including computers), and chemical reactions are practiced in laboratory activities. Emphasis in laboratory activities is placed on safety, use of the laboratory skills, application of learned material to practical usage, and development of proper use of the scientific method. Techniques for writing technical papers are also emphasized.

Requires Standards of Learning end-of-course assessment (test) for freshman entering high school in 2015, 2016, 2017, or any student who has not met their minimum verified credit requirement in the Science category. A Standards of Learning end-of-course assessment (test) is optional for students who have already met their Science Verified Credit requirement for students entering as freshman in 2018 and beyond.

Physics (4510)

Grade level: 11, 12

Credit: 1

Pathway: 1, 2, 3

Prerequisite: Geometry with “C” average or greater

Physics is a course offered to students who have successfully completed two laboratory science classes as well as algebra and geometry. The math background is as important a prerequisite as science because the study of physics requires proficient application of mathematical calculations. The course includes Newtonian physics, heat, light, electricity, and magnetism, and is intended to prepare students for higher education. Physics requires frequent demonstrations and laboratory sessions to supplement and clarify the academic presentations

Dual Enrollment (WCC-BIO 101-102) Biology II (4320)

Grade level: 11, 12

Credit: 1

Pathway: 1, 2

Prerequisites: Biology with a “C” average or greater. Chemistry with “C” average or greater. Qualifying score on Wytheville Community College placement test.

Biology II or General Biology 101-102 is a college course offered to highly motivated high school upper classmen. Students who successfully complete this WCC course will receive one (1) high school credit and four (4) college credits for each semester. Students must successfully complete Biology 101 before taking Biology 102. The course explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. There is also an introduction to the diversity of living organisms-- their structures, functions, and evolution. Students are provided alternatives to animal dissection techniques pursuant to the Code of Virginia 22.1-200.01.

Human Anatomy & Physiology I (4330)

Grade level: 11, 12

Credit: 1

Pathway: 1, 2

Prerequisites: Completion of Biology with a “C” or better average. Chemistry with “C” average or greater.

This course is designed to cover an introduction to all body human systems. Students will receive instruction in human structures, locations, and functions as well as common disease processes. Anatomy/Physiology is an elective lab science course for students who are interested in gaining an understanding of the human body. Various structures (anatomy) and how those structures function (physiology) will be studied. Although students entering any science related or medical field may have special interest, the human body and how it functions is applicable to all students.

Dual Enrollment (WCC-BIO 141-142) Human Anatomy & Physiology I (4330D)

Grade level: 11, 12

Credit: 1

Pathway: 1, 2

Prerequisites: Completion of Biology with a “C” or better average. Chemistry with “C” average or greater. Qualifying score on Wytheville Community College placement test. The course will be offered online vial Linwood Holton Governor’s School. All Dual Enrollment pre-requisites are required

This course is designed to cover an introduction to all body human systems. Students will receive instruction in human structures, locations, and functions as well as common disease processes. Anatomy/Physiology is an elective lab science course for students who are interested in gaining an understanding of the human body. Various structures (anatomy) and how those structures function (physiology) will be studied. Although students entering any science related or medical field may have special interest, the human body and how it functions is applicable to all students.

SOCIAL STUDIES DEPARTMENT

ORIGINAL VDOE Standard Diploma: 3 History and Social Sciences courses. Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both.

Verified Credit for students entering as freshman in 2015, 2016, and 2017: 1 EOC History and Social Sciences SOL Test. Any additional EOC History and Social Sciences SOL tests may count as a student selected test.

ORIGINAL VDOE Advanced Diploma: 4 History and Social Sciences Classes Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both.

Verified Credit for students entering as freshman in 2015, 2016, and 2017: 2 EOC History and Social Sciences SOL Tests. Any additional EOC Science SOL tests may count as a student selected test.

“PROFILE OF A GRADUATE” Standard Diploma: 3 History and Social Sciences courses. Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and one course in either world history or geography or both.

“PROFILE OF A GRADUATE” ADVANCED Diploma: 4 History and Social Sciences courses. Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and two courses in either world history or geography or both.

World History and Geography to 1500 A.D. (2215); WH I

Grade level: 9, 10

Credit: 1

Pathway: 1, 2, 3, 4, 5

Prerequisite: None

This course is recommended for academically strong students. The study of ancient civilizations, Greece and Rome, the Middle East, Russia, early Medieval Europe, Asia, Africa, and the Americas and their influences on the world is the major focus of this course. This course will help students to understand the significance of these major cultures in the development of world history to 1500 A.D. Elements of social, economic, political, cultural, and geographical features of the regions under study are examined in depth to assist students learning.

Requires a Standards of Learning end-of-course assessment (test) for all students taking this course.

World History and Geography 1500 A.D. (C.E.) to the Present (2216); WH II

Grade level: 9, 10

Credit: 1

Pathway: 1, 2, 3, 4, 5

Prerequisite: World History I

These standards enable students to examine history and geography from 1500 a.d. (c.e.) to the present, with emphasis on Western Europe. Geographic influences on history will continue to be explored, but increasing attention will be given to political boundaries that developed with the evolution of nations. Significant attention will be given to the ways in which scientific and technological revolutions created new economic conditions that in turn produced social and political changes. Noteworthy people and events of the nineteenth and twentieth centuries will be emphasized for their strong connections to contemporary issues.

Requires a Standards of Learning end-of-course assessment (test) for all students taking this course if the student has not earned the verified credits in Social Studies or Student Selected SOL needed for graduation.

Virginia and United States History (2360)

Grade level: 11

Credit: 1

Pathway: 4 & 5

Prerequisite: None

Virginia and United States History is a required course that surveys the major people and events from the Age of Discovery to the modern era. The Declaration of Independence, the Constitution, the Virginia Declaration of Rights, and the Virginia Statute of Religious Freedom are studied. Current events and the relationship between past and present issues are emphasized. Map, cartoon, chart, and graph interpretation, as well as critical thinking and writing skills, are further developed in this course.

Requires a Standards of Learning end-of-course assessment (test) for all students taking this course if the student has not earned the verified credits in Social Studies or Student Selected SOL needed for graduation.

Advanced United States History (2319A)

Dual Enrollment United States History – WCC 121/122 (2319D)

Grade level: 11, 12

Credit: 1

Pathway: 1, 2

Prerequisites: English 10 with a “B” Average or Advanced English 10 with a “C” Average. Qualifying score on Wytheville Community College placement test.

This course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with United States History through a survey of American thought and facts. The course requires extensive reading and writing. Consequently, students who have reading and composition difficulties are not encouraged to enroll. The course is taught to stimulate the academically oriented intellectually curious student. Community college requirements and Virginia’s Standards of Learning are integrated into the fabric of the course.

Requires a Standards of Learning end-of-course assessment (test) for all students taking this course if the student has not earned the verified credits in Social Studies or Student Selected SOL needed for graduation.

**Note: Additional SOL review sessions will be provided at each of the high schools to prepare DE History students for success on the EOC History SOL test they are required to take.*

Virginia and United States Government (2440)

Grade level: 12

Credit: 1

Pathway: 4 & 5

Prerequisite: None

A required course, Virginia and United States Government is a study of modern world political and economic systems. Western political thinking and the foundations for Virginia and American government are studied. Current events and local government are also emphasized through the utilization of field trips, resource persons, and active student participation.

Advanced Virginia and United States Government (2440A)

Dual Enrollment Political Science 211-212 (2440D)

Grade level: 12

Credit: 1

Pathway: 1, 2

Prerequisites: Virginia and United States History with a grade of “B” or greater or AP Virginia and United States History with a grade of “C” or greater. Qualifying score on Wytheville Community College placement test.

In addition to the requirements for Virginia and United States Government, students will be expected to work at an accelerated pace and more independently. This course will require extensive reading, writing, and independent scholarly research.

Additional online History/Social Science Classes are also available by contacting your school counselor.

Required Economics and Personal Finance Class

Economics and Personal Finance (6120)

Grade level: 10, 11, 12

Credit: 1

Students learn how economies and markets operate and how the United States economy is interconnected with the global economy. Additionally they learn how to navigate the financial decisions they must face and to make informed decisions relating to career exploration, budgeting, banking, credit, insurance, spending, financing postsecondary education, taxes, saving and investing, buying/leasing a vehicle, and living independently. They also learn the importance of investing in themselves in order to gain the knowledge and skills valued in the marketplace. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship, more effective participation in the workforce, and career success. The course incorporates all economics and financial literacy objectives included in the Code of Virginia §22.1-200-03B. This course also contains a virtual component and required credential testing that if successfully completed will meet the Board of Education's "virtual course" graduation and standard diploma credential requirement.

All WCPS students are required to take the W!SE CTE Credential test during this course as well.

Physical Education Credits

Standard Diploma: Health/PE 9 and Health/PE 10

Advanced Diploma: Health/PE 9 and Health/PE 10

PHYSICAL EDUCATION DEPARTMENT

Health and Physical Education 9 (7300)

Grade level: 9

Credit: 1

Prerequisite: None

Health and Physical Education 9 is a required course designed to develop organic strength, physical fitness, and wholesome use of leisure time. The physical fitness activities taught can be used for lifetime fitness. Mental health and safety awareness are also part of Health and Physical Education 9 as well as other health topics such as: disease prevention and control, consumer health, environmental health, first aid, personal and family survival, tobacco, alcohol, drugs, adolescence, and family living.

In addition, students will meet their graduation requirement to be trained in emergency first aid, CPR, and the use of AED, including hands-on practice of the skills necessary to perform cardiopulmonary resuscitation.

Health and Physical Education 10 (7405)

Grade level: 10

Credit: 1

Prerequisite: Health and Physical Education 9

Health and Physical Education 10 consists of exercise, flexibility, and skills in individual and team sports, with an emphasis on lifetime activities. Health units taught include mental health, parenthood, family living, tobacco, alcohol, and drugs.

Classroom (7015) and In-Car Driver Education (7016)

Grade level: 10 (Health and Physical Education)

Prerequisite: None for classroom driver education

In-car driver education requires successful completion of classroom driver education and a valid learner's permit.

Classroom driver education covers 36 hours of instruction in defensive driving techniques, SIPDE (search, identify, predict, decide and execute) method of driving, other related skills for pedestrians, passengers, and operators of vehicles, and effect of alcohol and drugs on driving. The classroom phase of driver education is an integral part of Health and Physical Education and is required of all students regardless of whether or not the student possesses a valid learner's permit.

In-car driver education covers a minimum of fourteen hours. Seven hours will consist of in-car observations, and during the other seven hours, student actually drives. Skills covered during in-car training are open road driving, residential driving, town driving, interstate driving, parking, and various driving maneuvers and turns. Classroom driver education may count for 36 class periods of health education. Students shall not be removed from classes other than health and physical education for the in-car phase of driver education.

For additional information on the Wythe County Public Schools Driver Education Program, please refer to the WCPS Driver's Education Manual located on the WCPS website:

Advanced Physical Education (7640)

Grade level: 9, 10, 11, 12

Credit: 1

Advanced Physical Education is an elective course that emphasizes individual fitness, recreational sports, and organizational and directive duties of individual and dual sports. *Priority will be given to upper classmen who do not have a regular PE class.

Computer Science Credits

Computer Science Foundations (10020)

Grade Level: 9, 10, 11,12

Credit: 1

Prerequisite: Digital Applications

The Computer Science Foundations standards outline the content for a one-year course with an emphasis on computer programming within the context of broader concepts of computer science. The standards build on the concepts of computer science developed in prior grade levels. The standards provide a transition from block-based programming to a text-based programming language and familiarize the student with developing and executing computer programs. Programmable computing tools will be used to facilitate design, analysis, and implementation of computer programs. Students for exploring and creating computer programs, facilitating reasoning and problem solving, and verifying solutions should use these tools.

Computer Science Principles (10011)

Grade Level: 10, 11, 12

Credit: 1

Prerequisite: Computer Science Foundations

The Computer Science Principles standards outline the content for a one-year course with an emphasis on the principles underlying computer science. The standards build on the concepts outlined in the Computer Science Foundations standards.

Students in this course will expand their programming skills and begin to think about and analyze their own problem solving process. Students continue to develop the ideas and practices of computational thinking and consider how computing impacts the world.

Programmable computing tools will be used to facilitate design, analysis, and implementation of computer programs. Students for exploring and creating computer programs, facilitating reasoning and problem solving, and verifying solutions should use these tools

Computer Science Programming (10021)

Grade Level: 10, 11, 12

Credit: 1

Prerequisite: Computer Science Principles

The Computer Science Programming standards outline the content for a one-year course with an emphasis on computer programming in a text-based language. The standards build on the concepts outlined in the Computer Science Foundations and Computer Science Principles standards.

This course continues the study of computer programming and prepares students to write programs of increasing complexity to solve problems of personal interest and professional relevance in a variety of technical fields. Additionally, this course provides the knowledge and experience to prepare students for further studies in computer science.

The majority of this course will address Algorithms and Programming. While the standards below do not include new content related to Computing Systems or Networks and the Internet, they may be used to provide context for additional exploration of these topics

Fine Arts Credits

STANDRD DIPLOMA: Credits earned for this requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical course credit.

ADVANCED DIPLOMA: Credits earned for this requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical course credit.

ART DEPARTMENT

Art I (9120)

Grade level: 8, 9, 10, 11, 12

Credit: 1

Prerequisite: None

Art I is a general art course that covers the main fields of art such as drawing, painting, printmaking, architecture, sculpture, and crafts. Students will be introduced to a variety of media and encouraged to work in a serious studio environment. Emphasis is placed on the basic art elements of line, color, shape, value, texture and space. A general survey of art history and artists is also a part of this course, and emphasis is placed on the development of art appreciation.

Art II (9130)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: Art 1

This course covers drawing, painting, printmaking, architecture, sculpture, advertising, design, and crafts. Emphasis is placed on technique, knowledge of materials, composition, and design. Careers in art are included in this course.

Art III (9140)

Grade level: 10, 11, 12

Credit: 1

Prerequisite: Art II

Art III is a course for students who have a serious interest in art. Major areas of art will be explored in greater depth. Students are given more freedom to work in media of their choosing. Emphasis is placed on developing personal style. Art history and a study of "modern" styles are included in this course.

Art IV/V (9145)

Grade Level: 11, 12

Credit: 1

Prerequisite: Art III/IV

Art V is an independent study course with specific assignments and projects assigned to serious art students. Freedom is given to the student to choose the areas of study.

Digital Photography (9190)

Grade Level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

This class will explore and practice standard black and white photographic processes through the use of cameras, films, light effects and the application of basic darkroom techniques. Students will explore and practice digital photographic processes. The class will produce meaningful photographs that express ideas about experiences and observations of the world. Students will study the history of photography and the work of well-known photographers to enhance understanding.

MUSIC DEPARTMENT

Intermediate Band (9233); Advanced Band (9234)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: None for Intermediate Band; audition for Advanced Band

This course emphasizes basic musical skills and their use in the performance of band music. Students also learn how to march and use the marching skills for both field shows and parades. Competition in concert and marching band may be stressed for the musical growth of the organization. Public performance is an integral part of the band program and out-of-school activities may be required of participants. This course may be divided into symphonic (advanced) band and intermediate band, with students placed by audition.

Lab Band (9296)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

This course is open to all students enrolled in Advanced Band. Non-band musicians such as guitarists, pianists, bassists, and vocalists are included by audition only. This is an experimental class in which students try various instruments while playing diverse styles of music including jazz, rock, and pop. Basic music theory is taught with emphasis on chord structure and melodic structure, using the blues scales. Each student is expected to learn to play improvised solos. Public performance is not emphasized, but may be a natural outcome of the class.

Advanced Chorus (9289); Intermediate Chorus (9285)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: Audition

Vocal techniques, reading musical notation, voice production, music performance, and diction are stressed. Choirs may perform for public functions, and out-of-school activities may be required of participants. Students are placed in Chorus through audition.

Music Theory (9225)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisites: Music Appreciation, 2 years in performing ensemble, or permission of the instructor

Recommended for any student who plans to pursue a career involving music in any way, this course gets in- depth on the building blocks of western music: Melody, Harmony, and Rhythm. Students will discover the underpinnings of musical tonality, understand why “chord changes” work the way they do, analyze works from various historical and modern genres, and gain an intellectual and listening-based knowledge of intervals and chords. The final unit of the course will put the lessons to work as students compose an original work of music in the genre of their choice.

Percussion Ensemble (9250)

Grade Level: 9, 10, 11, 12

Credit: 1

Prerequisites: Percussion students or approved by the band director

A class exclusively for percussion students that have successfully completed the middle school band program or have been approved by the band directors. This is a band class with an emphasis on improving percussion technique. Students will be studying music and all its elements through the performance of percussion and band literature. Students will demonstrate high level of proficiency on all percussion instruments and will demonstrate a thorough knowledge of playing fundamentals including scales and rudiments. Percussion Ensemble will perform 2-4 concerts a year. They will be responsible for after school rehearsals prior to concerts.

Music Appreciation (9296)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

A study of music from antiquity through modern times. Designed for students with limited musical background; the course will strive to enhance musical enjoyment, basic knowledge of music styles and events, and focus on placing this knowledge in a historical context. Students will study selected personalities and works in music through reading, listening and writing. Basic elements of music will also be studied.

Piano Lab I (9255)

Grade Level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

Students will receive instruction in piano technique, music reading and basic music theory. Students will learn and perform individual songs and group songs for each other during class. Previous music experience is not required. This course is strongly encouraged for students who are considering a college music major/minor.

Piano Lab II (9297)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: Successful Completion of Piano Lab I

This class will allow students to learn basic skills to play the piano. The piano lab set-up will allow students to work at their own pace, and benefit from more one-on-one attention from the instructor. While not working with the instructor, students will have time to practice. Students taking this class must be self-motivated and be able to work independently.

Guitar Lab (9245)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

Students will receive instruction in guitar technique, music theory and music composition. Students will learn and perform individual songs and group songs during class.

World Language Credits

STANDRD DIPLOMA: Credits earned for this requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical course credit.

ADVANCED DIPLOMA: Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

WORLD LANGUAGE DEPARTMENT

French I (5110)

Grade level: 8, 9, 10, 11, 12

Credit: 1

Prerequisite: None

Recommendation: Minimum “C” average in English

French I is a course that offers instruction in the customs, the geography, and the language of France. Emphasis is placed on the basic communication skills of speaking, reading, writing, and listening. Students use everyday vocabulary for conversation practice. Basic grammar is emphasized and a strong background in English grammar is recommended.

French II (5120)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: French I

Recommendation: Minimum “C” average in French I

French II is a continuation of the study of customs, geography, and language, with more emphasis placed on oral communication. Correct grammar is stressed through grammar and structure drills. Students are encouraged to participate in free response activities.

French III (5130)

Grade level: 10, 11, 12

Credit: 1

Prerequisite: French II

Recommendation: Minimum “C” average in French II

French III is the continuation of French II. Students are expected to write and speak French more fluently and to use the language more spontaneously than the French II students. Extended reading and writing activities are used to enhance grammar study. Independent student projects encourage cultural study.

French IV, V (5140) (5150)

Grade level: 11, 12

Credit: 1

Prerequisite: French III, French IV

Recommendation: Minimum “C” average in French II, French IV

These courses encourage proficiency through study of French drama, literature, history, and art. Advanced grammar and communication skills are developed.

Spanish I (5510)

Grade level: 8, 9, 10, 11, 12

Credit: 1

Prerequisite: None

Recommendation: Minimum “C” average in English

Spanish I is a course designed to encourage students to study relationships between the Spanish culture and their own culture and to provide opportunities for students to see the relationship between the Spanish and English languages. The major objective of the course is to develop the students' skills in reading, writing, listening, speaking, and comprehending the language, in preparation for further study.

Spanish II (5520)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: Spanish I

Recommendation: Minimum “C” average in Spanish I

Spanish II is a continuation of the study of the culture of people of Spanish-speaking countries. Greater stress is placed on reading and conversational skills. Correct use of grammar is strengthened through grammar and structural drills. Through outside projects, the study of culture is continued with more student participation.

Spanish III (5530)

Grade level: 10, 11, 12

Credit: 1

Prerequisite: Spanish II

Recommendation: Minimum “C” average in Spanish II

Spanish III continues to stress speaking and writing skills. Students are expected to write and speak Spanish more fluently and to use the language more spontaneously than the Spanish II students. More advanced materials in Spanish literature, drama, art, and history are used in this course.

Spanish IV, V (5540) (5550)

Grade level: 11, 12

Credit: 1

Prerequisites: Spanish III and Spanish IV

Recommendation: Minimum "C" average in Spanish III, Spanish IV

These courses are recommended only for the serious language student. These students must demonstrate that they are highly motivated to learn and have the ability to work independently. These courses continue to stress the basic skills of listening, speaking, reading, and writing with more advanced materials in Spanish literature, drama, art, and history.

Career and Technical Education (CTE) Credits

STANDRD DIPLOMA: Credits earned for this requirement shall include one credit in fine or performing arts or career and technical education. Per the Standards of Quality, a computer science course credit earned by students may be considered a career and technical course credit.

ADVANCED DIPLOMA: Courses completed to satisfy this requirement shall include three years of one language or two years of two languages.

AGRICULTURE DEPARTMENT

Applied Agricultural Concepts (8073) –

Used as a Safety and Introduction Class

Plant Focus	Animal Focus	Natural Resources Focus	Production/Power Systems Focus
Horticulture Science (8034)	Introduction to Animal Systems (8008) *	Introduction to Natural Resources and Ecology Systems (8040) *	Agricultural Production Technology (8010) * – Co-op available
Horticulture Sciences II – Greenhouse Plant Production and Management (8035) – Co-op available	Agricultural Production Technology (8010) * – Co-op available	Fisheries and Wildlife Management (8041) * – Co-op available	Agriculture Production Management (8012) * – Co-op available
	Veterinary Science (8088) – Co-op available	Forestry Management (8042) * – Co-op available	Operating the Farm Business (8014) * – Co-op available
	Equine Management and Production (8080) – Co-op available		Agricultural Fabrication and Emerging Technologies (8019) * – Offered at WCTC Only
	Operating the Farm Business (8014) * – Co-op available		

*8073 used as a pre-requisite for 8008, 8010, 8012, 8014, 8019, 8040, 8041, 8042

Applied Agricultural Concepts (8073)

Grade Level: 8-12
Credit: 1
Prerequisite: None

Students who have limited or no agricultural background or experience learn fundamental agricultural competencies needed for rural or urban living. Areas of instruction include meat grading and selection; maintenance of home appliances and equipment; and the study of plumbing, electrical wiring, and carpentry fundamentals. Teachers may incorporate additional competencies in the study of soil fertility and in cultural practices for shrubs, lawns, gardens, and fruit trees. The course emphasizes leadership development activities and participation in FFA activities.

****Agriculture Co-op***

Grade level: 11,12
Credit: 1
Prerequisite: Applied Agricultural Concepts (8073) and 11th or 12th grade standing

This course component provides students with instruction that enables them to obtain skills necessary to succeed in their chosen agriculture occupation. Students combine classroom instruction with a minimum of 396 hours of supervised on-the-job training in an approved position with a local agriculture business. Students are required to maintain employment for the entire school year. A student must be simultaneously enrolled in one of the Agriculture Focus area classes; exception Agricultural Fabrication and Emerging Technologies I (8019) which is a non-cooperative education class.

Co-op students will be registered in this cooperative component the entire school year even when the Agriculture Focus area course is only offered in a semester format. Students will receive 1 credit for classroom instruction and 1 credit for cooperative education supervised on-the-job training. The complete 2 credits will not be awarded until completion of the required coursework at the end of the school year.

PLANT FOCUS

Horticulture Sciences (8034)

Grade Level: 10, 11, 12
Credit: 1
Prerequisite: None; recommendation of Applied Agricultural Concepts (8073)

Through laboratory activities, students apply scientific principles to the field of horticulture, including the areas of floriculture, landscape design, greenhouse operation, nursery plant production, and turf management. They practice safety, develop leadership traits, use plant-growing media, and identify, propagate, and grow horticultural plants in the greenhouse and land laboratory.

Horticulture Sciences II – Greenhouse Plant Production and Management (8035)

Grade Level: 11, 12
Credit: 1
Prerequisite: Horticulture Sciences I

Students enrolled in this course learn the operating procedures for a greenhouse. Units of instruction include developing plant production facilities, science application in plant production, and identification of plants. Business management and marketing skill are emphasized to prepare students for careers in the greenhouse plant production and management industry. Leadership development is offered through participation in FFA.

ANIMAL FOCUS

Introduction to Animal Systems (8008)

Grade level: 9, 10

Credit: 1

Prerequisite: Applied Agricultural Concepts (8073)

This occupational preparation course is devoted to agricultural mechanics with emphasis placed on development of skills in arc welding, gas cutting and brazing, small engines, power woodworking, and project planning and construction. Instruction is provided in animal science, forestry resource conservation, leadership training, and rural and urban living.

Agriculture Production Technology (8010)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: Applied Agricultural Concepts (8073) with a recommendation of Introduction to Animal Systems (8008)

This course emphasizes one or more areas of plant science, animal science, soil science, agricultural business management, and agricultural mechanization, based upon the student's employment objective. Local school divisions should select one of the following livestock enterprises: beef cattle, dairy cattle, swine, horses, or sheep. The competencies for the selected livestock enterprise are considered essential for the course. Supervised occupational experience programs and leadership training are important parts of the course. When only single periods are provided, greater emphasis is placed on individualized instruction and supervised occupational experience programs.

Veterinary Science (8088)

Grade level: 10, 11, 12

Credit: 1

Prerequisites: Successful completion of Biology with a C or better; recommendation of Applied Agricultural Concepts (8073)

This course provides students with the employability and technical skills needed to succeed in postsecondary education and a career in veterinary medicine or in a related occupation. Course content will include the integration of academics and career skills and instruction in the use of tools, equipment, and facilities for veterinary medicine. Business management, leadership and FFA activities are included in the course. Students enrolled in the course should have a strong background in math and science and knowledge of small animal care.

Equine Management and Production (8080)

Grade level: 10, 11, 12

Credit: 1

Prerequisite: None, recommendation of Applied Agricultural Concepts (8073)

This is an introductory course where students learn how to care for and manage horses. Equine health, nutrition, management, reproduction, training, evaluation, and showmanship are the major instructional areas. In addition, course content includes instruction in the tools, equipment, and facilities for equine enterprises. Business management topics include the economics of boarding, training, and merchandising horses. Leadership development activities are included, and participation in FFA activities is encouraged.

Operating the Farm Business (8014)

Grade level: 11, 12

Credit: 1

Prerequisites: Applied Agricultural Concepts (8073); recommendation of Agriculture Production Technology (8010)

Much of the content in this occupational preparation course may be provided through individualized instruction. Students focus on farming, farm management, and occupational experience as they receive instruction in adjusting, operating, and maintaining farm machinery and equipment and in planning and constructing farm buildings and facilities. Continued emphasis is placed on leadership training.

NATURAL RESOURCE FOCUS

Introduction to Natural Resources and Ecology Systems (8040)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: Applied Agricultural Concepts (8073)

This course serves as the introductory level course for the Natural Resources Career Pathway. Students will explore the study of natural resources and begin to develop skills and knowledge required for employment in occupations related to forestry, wildlife and natural resources management, and conservation.

Fisheries and Wildlife Management (8041)

Grade level: 10, 11, 12

Credit 1

Prerequisites: Applied Agricultural Concepts (8073); recommendation of Introduction to Natural Resources and Ecology Systems (8040)

The Fisheries and Wildlife Management course offers instruction in identification and management of both terrestrial and aquatic wildlife and of their habitats. Content addressing the issues related to endangered species and organizations that protect fisheries and wildlife is also included.

Forestry Management (8042)

Grade level: 10, 11, 12

Credit 1

Prerequisites: Applied Agricultural Concepts (8073); recommendation of Introduction to Natural Resources and Ecology Systems (8040)

This course will offer students instruction in the management of the forest as a resource and as a business. Students will develop knowledge in areas like tree physiology, forest ecology, silviculture, and the management and marketing of forest products. Strong emphasis is placed on developing career skills for the forestry industry as well.

PRODUCTION/POWER SYSTEM FOCUS

Agriculture Production Technology (8010)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: Applied Agricultural Concepts (8073)

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This course emphasizes one or more areas of plant science, animal science, soil science, agricultural business management, and agricultural mechanization, based upon the student's employment objective. Local school divisions should select one of the following livestock enterprises: beef cattle, dairy cattle, swine, horses, or sheep. The competencies for the selected livestock enterprise are considered essential for the course. Supervised occupational experience programs and leadership training are important parts of the course. When only single periods are provided, greater emphasis is placed on individualized instruction and supervised occupational experience programs.

Agriculture Production Management (8012)

Grade level: 10, 11, 12

Credit: 1

Prerequisite: Applied Agricultural Concepts (8073); recommendation of Agriculture Production Technology (8010)

Course includes instruction in agricultural mechanics, with emphasis placed on the application of mechanical skills to farm power and machinery, soil and water management, supervised farming programs, and leadership training.

Operating the Farm Business (8014)

Grade level: 11, 12

Credit: 1

Prerequisite: Applied Agricultural Concepts (8073); recommendation of Agriculture Production Technology (8010) and Agriculture Production Management (8012)

Much of the content in this occupational preparation course may be provided through individualized instruction. Students focus on farming, farm management, and occupational experience as they receive instruction in adjusting, operating, and maintaining farm machinery and equipment and in planning and constructing farm buildings and facilities. Continued emphasis is placed on leadership training.

Agricultural Fabrication and Emerging Technologies I (8019)

Grade Level: 10, 11, 12

Credit: 1

Prerequisite: None

Students will receive instruction providing career training in the areas of agricultural fabrication and emerging technologies. This course content will focus on hot and cold metal fabrication and will also include studies of emerging technologies utilized within the field of agriculture.

BUSINESS AND INFORMATION TECHNOLOGY DEPARTMENT

Digital Applications (6611)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

This course is designed for secondary school students to develop real-life, outcome-driven approach skills for digital citizenship, basic computer operations, keyboarding, application software (word processing, spreadsheets, multimedia applications, databases), and career exploration. This course promotes skills that can be applied across the curriculum and offers preparation relevant to 21st century skills and postsecondary education. Students who successfully complete this course may be eligible for a rigorous and relevant industry certification examination. Student skills may be enhanced by participation in work-based learning activities and/or the Future Business Leaders of America (FBLA).

Principles of Business and Marketing (6115)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisite: None

Students discover the roles of business and marketing in the free enterprise system and the global economy. Basic financial concepts of banking, insurance, credit, inheritance, taxation, and investments are investigated to provide a strong background as students prepare to make sound decisions as consumers, wage earners, and citizens. The real-world impact of technology, effective communication, and interpersonal skills is evident throughout the course. This course also supports career development skills and explores career options.

Course Requests

Cyber Security Fundamentals (6302)

Grade level: 10, 11, 12

Credit: 1

Prerequisite: Digital Applications

The need for personal and professional cyber security skills has never been greater. The Cyber Security/Forensics infusion units are comprised of three main pieces: Cyber Security Foundations, Social Engineering and Personal Cyber Security, and Cyber Forensics. All tasks are listed as optional so that instructors may customize the units as they wish.

Design, Multimedia, and Web Technologies (6630)

Grade level: 10, 11, 12

Credit: 1

Prerequisite: Digital Applications

Students develop proficiency in designing and creating desktop-published projects, multimedia presentations/projects, and Web sites, using industry-standard application software. Students apply principles of layout and design in completing projects. Students create portfolios that include a résumé and a variety of desktop-published, multimedia, and Web-site projects produced in the course.

Accounting (6320)

Grade level: 10, 11, 12
Credit: 1
Prerequisite: None

Accounting students study the basic principles, concepts, and practices of the accounting cycle for a service business and a merchandising business. Topics covered include analyzing transactions, journalizing and posting entries, preparing payroll records and financial statements, and managing cash control systems. Business ethics and professional conduct are emphasized. Students learn fundamental accounting procedures, using both manual and electronic systems.

Computer Information Systems (6612)

Grade level: 9, 10, 11, 12
Credit: 1
Prerequisite: Digital Applications

Students apply problem-solving skills to real-life situations through word processing, spreadsheets, databases, multimedia presentations, and integrated software activities. Students work individually and in groups to explore computer concepts, operating systems, networks, telecommunications, and emerging technologies.

Business Law (6131D)

Grade level: 11, 12
Credit: 1
Prerequisite: None

Students examine the foundations of the American legal system and learn the rights and responsibilities of citizens. Students gain practical knowledge and life skills by exploring economic and social concepts related to laws governing business and individuals. Focus areas include contracts, consumer protection, criminal law, tort law, international law, family/domestic law, employment law, cyber law, and careers in the legal profession. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

FAMILY AND CONSUMER SCIENCES

Individual Development (8210)

Grade level: 8, 9, 10, 11, 12

Credit: 1

Prerequisite: None

Students enrolled in Individual Development will learn about themselves, their relationships with friends, family, and others. Self-esteem building and strategies for coping with stress are emphasized. Students will learn to make wise choices on food, clothing, spending money and other resources. Understanding the importance of responsible parenting to individual, families, and society will be emphasized. Practical problem solving and critical thinking skills will be emphasized. Teachers highlight the basic skills of math, science, and communication when appropriate in the content. Students will be required to purchase materials periodically.

Nutrition and Wellness (8229)

Grade levels: 10, 11, 12

Credit: 1

Prerequisite: None

Students enrolled in Nutrition and Wellness focus on making choices that promote the health and well being of the family by studying financial services and budgeting; obtaining and storing foods; preparing and serving nutritious meals and snacks; selecting and using equipment for food preparation; selection, maintenance of clothing; evaluating family needs in relation to housing and furnishing decisions. Teachers highlight the basic skills of math, science, and communication when appropriate in content. Students may be required to purchase materials.

Independent Living (8219)

Grade level: 10, 11, 12

Credit: 1

Prerequisite: None

This course allows students to explore successful strategies for living independently by actively participating in practical problem solving focusing on, relating to others (relationships), applying financial literacy, managing resources in the areas of apparel, nutrition and wellness, and housing, using leadership skills to reach individual goals, planning for careers, and making consumer choices in a global environment.

Life Planning (8227)

Grade Level: 11, 12

Credit: 1

Prerequisite: None

Life planning is designed with seniors in mind to prepare for life after high school. Students focus on developing a life management plan: wellness caring for themselves and others; developing strategies for career planning; and planning the use of personal resources. Basic life skills in math, science, and communication will be reinforced. Students may periodically be required to purchase materials.

MARKETING EDUCATION DEPARTMENT

Introduction to Marketing (8110) (Co-op Not Available)

Grade level: 9, 10

Credit: 1

Prerequisite: None

Students gain an understanding of the importance of marketing in today's society. They develop skills related to interpersonal communication, self-presentation, economics, marketing, sales, employability, career discovery, and ethical decision-making. This course reinforces mathematics, science, English, and history/social science Standards of Learning (SOLs). Computer/technology applications and DECA activities support this course. DECA, the co-curricular student organization, offers opportunities in leadership, community and competitive events.

****Marketing Education Co-op (8120C and 8130C)***

Grade level: 11,12

Credit: 1

Prerequisite: 11th or 12th grade standing

This course component provides students with instruction that enables them to obtain skills necessary to succeed in their chosen agriculture occupation. Students combine classroom instruction with a minimum of 396 hours of supervised on-the-job training in an approved position with a local Marketing business. Students are required to maintain employment for the entire school year. A student must be simultaneously enrolled in one of the approved Marketing Education area classes.

Co-op students will be registered in this cooperative component the entire school year even when their Marketing Education course is only offered in a semester format. Students will receive 1 credit for classroom instruction and 1 credit for cooperative education supervised on-the-job training. The complete 2 credits will not be awarded until completion of the required coursework at the end of the school year.

Marketing (8120); Co-op available to 11th & 12th graders

Grade level: 10, 11, 12

Credit: 1

Prerequisite: None

Students examine activities in marketing and business important for success in marketing employment and postsecondary education. Students will learn how products are developed, branded, and sold to businesses and consumers. Students will analyze industry trends and gain hands-on experience in the marketing of goods, services, and ideas. Topics will include professionalism in the workplace, product planning and positioning, promotion, pricing, selling economic issues, and the impact of technology on the marketplace. This course reinforces mathematics, science, English, and history/social science Standards of Learning (SOL). Computer/technology applications and DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. Completion of the required coursework at the end of the school year.

Advanced Marketing (8130); Co-op available to 11th & 12th graders

Grade level: 11, 12

Credit: 1

Prerequisite: Marketing

Students build on knowledge gained in a prior marketing course. Students participate in supervisory and management activities focusing on the marketing mix, purchasing, financing, human resources, global marketing, pricing, and emerging technologies. Students will prepare for advancement in marketing careers and postsecondary education. This course reinforces mathematics, science, English, and history/social science Standards of Learning (SOL's). Computer/technology applications and DECA activities enhance this course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events.

MILITARY SCIENCE

Military Science 1 (7913)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisites: 14 years old and at least in the 9th grade

Students are introduced to the Military Science curriculum, and basic U.S. citizenship rights and responsibilities are established and reinforced. Students learn leadership, history, communication techniques, disciplined study habits, management skills, first aid, drug abuse prevention, map reading, physical fitness, and workplace readiness skills. Military customs and courtesies, proper uniform wear, and personal appearance guidelines are followed within the leadership lab, drill, and military ceremonies.

Military Science 2 (7916)

Grade level: 9, 10, 11, 12

Credit: 1

Prerequisites: LET 1 with a grade of "C" or greater

Students are introduced to the Military Science curriculum, and basic U. S. citizenship rights and responsibilities are established and reinforced. Students learn leadership, history, communication techniques, disciplined study habits, management skills, first aid, drug abuse prevention, map reading, physical fitness, and workplace readiness skills. Military customs and courtesies, proper uniform wear, and personal appearance guidelines are followed within the leadership lab, drill, and military ceremonies.

Military Science 3 (7918)

Grade level: 11, 12

Credit: 1

Prerequisites: Military Science 1 & 2 with a grade of "C" or greater

Students continue to develop their leadership skills through working as command and staff leaders. Additional communication skills are developed, including methods of instruction, preparation, and proper conduct of cadet-led classes. Human relations, group dynamics, orienteering, contemporary U. S. issues, and advanced military history studies are also included.

Military Science 4 (7919)

Grade level: 11, 12

Credit: 1

Prerequisites: Military Science 1, 2 & 3 with a grade of "C" or greater

Students continue to develop their leadership skills through working as command and staff leaders. Additional communication skills are developed, including methods of instruction, preparation, and proper conduct of cadet-led classes. Human relations, group dynamics, orienteering, contemporary U. S. issues, and advanced military history studies are also included.

Military Science 5 (7920)

Grade level: 11, 12

Credit: 1

Prerequisites: Military Science 1, 2, 3 & 4 with a grade of "C" or greater

Cadets continue to develop leadership techniques with emphasis on assuming command and staff functions. Character, leadership development and theory, leadership application, foundations of success, wellness, and first aid are also included. Academic areas of geography, Earth science, citizenship, and American history are emphasized and reinforced. Service-learning projects and community involvement are also covered at this level.

Military Science 6 (7922)

Grade level: 11, 12

Credit: 1

Prerequisites: Military Science 1, 2, 3, 4, & 5 with a grade of “C” or greater

Cadets continue to develop leadership techniques with emphasis on assuming command and staff functions. Character, leadership development and theory, leadership application, foundations of success, wellness, and first aid are also included. Academic areas of geography, Earth science, citizenship, and American history are emphasized and reinforced. Service-learning projects and community involvement are also covered at this level.

Wythe County Technology Center

Wythe County Technology Center offers a variety of courses to meet the needs of the students in Wythe County. The courses are block classes and the students can earn up to 3 credits per course. Upon satisfactory completion of the program, students receive a certificate.

Because the majority of the programs have embedded apprenticeships or mandated clock hour requirements, regular attendance is critical for successful program completion. Given that these programs are designed for older students, students' attendance patterns are well established prior to program entry. Hence, students with chronic attendance issues (truancy, excessive early dismissals and/or tardiness) are strongly discouraged from program participation.

In addition to the course topics listed below, the Virginia Department of Education Division of Career and Technical Education has added the Virginia's Workplace Readiness Skills CBE Task List to all technology courses offered.

Workplace readiness skills are important because in addition to looking for specialized job skills, employers are also looking for "Soft" Skills. Soft Skills relate to:

1. Personal Qualities and People Skills
2. Professional Knowledge and Skills
3. Technology Knowledge and Skills

Automotive Technology I (8506)

Grade level: 10, 11, 12

Credit: 3

Prerequisites: Algebra 1 and English 10 or concurrent enrollment in English 10

In this course, students explore, handle, and perform basic functions in engine repair, automatic transmission and transaxle, manual drive train and axles, suspension and steering systems, and brakes. Students who successfully complete the Automotive Technology program may be eligible to take the Automotive Service Excellence (ASE) Student Certification examination. The ASE Student Certification is the first step in building a career as a service professional in the automotive industry.

Automotive Technology I and II are closely aligned with the 2017 ASE Education Foundation automobile program standards for Maintenance and Light Repair (MLR).

Automotive Technology II (8507)

Grade level: 11, 12

Credit: 3

Prerequisite: Automotive Technology I (8506)

In this course, students build upon their basic knowledge of automotive technology, exploring more advanced tasks in engine repair, automatic transmission and transaxle, manual drive train and axles, suspension and steering systems, and brakes. They also learn about electrical, electronic, and HVAC systems in automobiles. Upon successful completion of the course, students may be eligible to take the Automotive Service Excellence (ASE) Student Certification examination.

Automotive Technology I and II are closely aligned with the 2017 ASE Education Foundation automobile program standards for Maintenance and Light Repair (MLR).

Automotive Technology III (8508)

Grade Level: 12

Credit: 3

Prerequisite: Automotive Technology II (8507)

This course prepares students to perform automotive diagnosis and repairs in the following areas: engine repair, cooling systems, transmission and transaxle, manual drive trains and axles, suspension and steering, wheel and tire, brakes, electrical/electronic systems, HVAC, and engine performance. Students are provided with more advanced instruction in all systems as they prepare for the Automotive Service Excellence (ASE) certification examinations. The Automotive Technology program provides the fundamental skills necessary to succeed in an ever-changing and challenging industry as an automotive technician.

This course is closely aligned with the ASE Education Foundation (formerly NATEF)'s 2017 standard for Automobile Service Technology (AST).

Building Trades I (8515)

Grade level: 10*, 11, 12

Credit: 3

Prerequisite: *With the approval of the WCTC Principal and the student's High School Principal

Building Trades I prepares students to erect, install, maintain, and repair buildings, and other structures using materials such as metal, wood, stone, brick, glass, concrete and composition substances. Students focus on developing skills in core safety and masonry, carpentry, electricity, and plumbing professions. Students emphasize safety by preparing to earn the OSHA 10 card as they build or repair entire residential structures, using a variety of materials and tools.

Student must be 16 years of age by September 1 of the current school year to meet Department of Labor guidelines.

Building Trades II (8516)

Grade level: 11, 12

Credit: 3

Prerequisite: Build Trades I

Building Trades II continues to prepare students to erect, install, maintain, and repair buildings, and other structures using materials such as metal, wood, stone, brick, glass, concrete, and composition substances. Students focus on mastering skills in core safety and masonry, carpentry, electricity, and plumbing professions. Additionally, the International Code Council's High School Technical Training Program is integrated into Building Trades II. This program is divided into four parts: building, plumbing, HVAC (mechanical) and electrical. This program helps provide students with a comprehensive knowledge of construction trades and better prepares them for a possible career in building inspection, building code administration, and building inspection technology.

Engineering Explorations (8450)

Grade level: 9*, 10, 11, 12

Credit 3

Prerequisites: Completed Algebra I and concurrently taking Geometry or Algebra II; *With the approval of the WCTC Principal and the student's High School Principal

This is the first course in a possible four course sequence that will enable students to examine technology and engineering fundamentals related to solving real-world problems. Students will be exposed to a variety of engineering specialty fields and related careers to determine whether they are good candidates for post secondary educational opportunities in engineering. Students will gain basic understanding of engineering history and design, using mathematical and scientific concepts. Students will participate in hands-on projects in a laboratory setting as they communicate information through team based presentations, proposals, and technical reports.

Engineering Analysis and Applications II (8451)

Grade level: 10, 11, 12

Credit: 3

Prerequisite: Engineering Explorations

This is the second course in a possible four course sequence that will allow students to examine systems, the interaction of technology and society, ethics in a technological world, and the fundamentals of modeling while applying the engineering design process to areas of the designed world. Students will participate in hands-on projects in a laboratory setting as they communicate through team-based presentations, proposals, and technical reports.

Engineering Analysis and Applications III (8452)

Grade level: 11, 12

Credit: 3

Prerequisite: Engineering Analysis and Applications II

This is the third course of a possible four course sequence that will enable students to solve real-world problems. This course focuses on building an engineering team, working with case studies, managing projects, applying logic and problem-solving skills, delivering formal proposals and presentations, and examining product and process trends. In addition, students continue to apply their engineering skills to determine whether they are good candidates for post-secondary educational opportunities in engineering. Students will participate in STEM-based, hands-on projects as they communicate information through team-based presentations, proposals, and technical reports.

Engineering Practicum IV (8453)

Grade level: 12

Credit: 3

Prerequisites: Engineering Analysis and Applications III

This is the fourth course of a possible four-course pathway that will enable students to examine technology and engineering fundamentals related to solving real-world problems. To do so, students examine ethics and intellectual property and design a practicum project, a culmination of knowledge and skill they gained in the previous engineering courses. In addition, students continue to investigate a variety of engineering specialty fields and related careers to determine whether they are good candidates for postsecondary educational opportunities in engineering.

Technology of Robotic Design (8420)

Credit: 3

Suggested Grade Levels 9-11

Prerequisites: Completed Algebra I and concurrently taking Geometry or Algebra II; *With the approval of the WCTC Principal and the student's High School Principal

Students engage in the study of computers and microprocessors and their applications to manufacturing, transportation, and communication systems. Topics include computer equipment and operating systems, robotics, programming, control

systems, and social/cultural impact of these technologies. Problem-solving activities challenge students to design, program, and interface devices with computer systems. Learning activities include robotics, computer-aided design, computer-aided manufacturing and design, and control of electromechanical devices.

Cosmetology I (8745)

Grade level: 10*, 11, 12

Credit: 3

Prerequisites: *With the approval of the WCTC Principal and the student's High School Principal

In this introductory course, students study hair, skin, and nails and their related care. Students are grounded in theory as they prepare to practice procedures in a clinical lab setting or classroom, using manikins for manipulative skill practice. The first-year course emphasizes personal safety, professionalism, and sanitation and disinfection of equipment and facilities. Students develop skills in shampooing and conditioning hair, as well as styling and cutting hair. They are introduced to chemical texture services and develop skills in manicure and pedicure procedures.

Students who successfully complete Cosmetology I & II may take the Board for Cosmetology Examination by also attaining a minimum of 840 hours of instruction (420hrs completed at each level).

Cosmetology II (8746)

Grade level: 11, 12

Credit: 3

Prerequisite: Cosmetology I with "C" average or better

In this continuing course, students build on their theoretical foundation of general sciences and practices in cosmetology to increase proficiency in hair cutting and styling on live models, with attention to professionalism, client consultation, safety, and infection control. Students are trained in safe chemical processes related to permanent waves, relaxers, lightening, and coloring hair. In addition, students learn to care for skin, hands, and feet, developing experience in providing facials, manicures, pedicures, and nail enhancements. Students will be introduced to a business management unit with a focus on managing the salon.

Students who successfully complete Cosmetology I & II may take the Board for Cosmetology Examination by also attaining a minimum of 840 hours of instruction (420hrs completed at each level).

Criminal Justice I (8702)

Grade level: 10, 11, 12

Credit 3

Students are introduced to the principles, techniques, and practices for pursuing careers within the criminal justice service system.

Criminal Justice II (8703)

Grade level: 11, 12

Credit 3

Prerequisite: Criminal Justice I

Students learn the legal foundations and processes, the principles, techniques, and practices for exploring careers within the criminal justice system, and the history of terrorism in the United States. Students combine classroom instruction and supervised, practical experience throughout the school year.

*ADJ 100, Survey of Criminal Justice, and ADJ 107, Survey of Criminology are offered at WCTC as optional dual credit classes in conjunction with WCC provided applicable prerequisites are met, i.e. obtaining a qualifying score on the Wytheville Community College placement test.

Culinary Arts I (8275)

Grade level: 10, 11, 12

Credit: 3

Prerequisite: None

Students practice managerial, production, and service skills used in government, commercial, or independently owned institutional food establishments and related food industry occupations. Students plan, select, store, purchase, prepare, and serve food and food products; study basic nutrition, sanitation, and food safety; the use and care of commercial equipment; and the operation of institutional food establishments. Critical thinking, practical problem solving, and entrepreneurship opportunities within the field of culinary arts are emphasized. Teachers highlight the basic skills of mathematics, science, and communication when appropriate in content.

Culinary Arts II (8276)

Grade level: 11, 12

Credit: 3

Prerequisite: Culinary Arts I

Culinary Arts II provides students an opportunity to refine skills in serving, dining room management, and other skills learned in Culinary Arts I. Students prepare for occupations such as chef/cook, baker/pastry helper/pastry decorator, hospitality worker, dietetic aide/assistant, food demonstrator, and entrepreneur. Critical thinking, practical problem solving, and entrepreneurship opportunities with the field of culinary arts are emphasized. Teachers highlight the basic skills of mathematics, science and communication when appropriate in content. Industry Certification can be obtained by successful completion of the ProStart exams and 400 hours work experience in the field.

Potentially Replace CAD with

Engineering Drawing and Design (8493) (This could be a semester course.)

Students use a graphic language for product design, technical illustration, evaluation of designs, and engineering drawings. They increase their understanding of drawing techniques learned in the prerequisite course. Students use computers, calculators, and descriptive geometry and adhere to established standards to solve design problems. They work in teams to design solutions for an identified need.

Potentially adding these new courses for Mr. King to align with our local JIDA and Manufacturing Council

Industrial Technology I (8575)

Suggested Grade Levels: 10-11

Credit: 3

Prerequisite: None

Industrial maintenance technicians repair and maintain commercial or industrial equipment in buildings. Students are taught safety and precision measurement skills and gain hands-on, practical experience in mechanical fundamentals, technical drawing, and welding.

Industrial Technology II (8576)

Suggested Grade Levels: 11-12

Credit: 3

Prerequisite: Industrial Maintenance Technology I

Industrial maintenance technicians repair and maintain commercial or industrial equipment in buildings. Students are taught safety and precision measurement skills and gain hands-on, practical experience in welding, hydraulics, pneumatics, HVAC, electricity, mechanical fundamentals, machine alignment, technical drawings, and quality control.

Mechatronics I (8554)

Suggested Grade Levels: 10-11

Credit: 3

Prerequisite: None

Students will learn about mechatronic systems in this introductory course. These systems are comprised of mechanical, electrical, and software systems. Mechatronic systems form the foundation of robotics, automation, and advanced manufacturing (such as 3D printing). The rapidly evolving area of mechatronics offers a variety of career options across many technological fields. Career options may include mechatronics technician/engineer, mechanical technician/engineer, electrical technician/engineer, process control technician/engineer, instrumentation technician/engineer, machine operators, and maintenance technicians.

Mechatronics II (8555)

Suggested Grade Levels: 11-12

Credit: 3

Prerequisite: Mechatronics I

Students will build on their knowledge of mechatronic systems in this second-year course. Mechatronic systems, comprised of mechanical, electrical, and software systems, form the foundation of robotics, automation, and advanced manufacturing (such as 3D printing). Students will explore mechanical, electrical, and pneumatic/hydraulic systems related to mechatronics, as well as relevant computer technologies. Upon successful completion, students may qualify for industry certification.

Mechatronics III (8556)

Suggested Grade Levels 12

Credit: 3

Prerequisite: Mechatronics II

Students will build on their knowledge of mechatronic systems in this advanced course. Mechatronic systems are comprised of mechanical, electrical, and software systems, and form the foundation of robotics, automation, and advanced manufacturing (such as 3D printing). Students will apply principles related to pneumatic, electro pneumatic, and hydraulic control circuits as well as basic digital logic and programmable logic controllers (PLCs) in a complex mechatronic system. Students will troubleshoot and resolve malfunctioning pneumatic and hydraulic components and circuits. Upon successful completion, students may qualify for industry certification.

Practical Nursing I (8357)

Grade level: 11, 12

Credit: 3

Prerequisite: Enrolled in or successfully completed Biology

In the first semester, students learn nursing care of patients of all ages, in various stages of sickness or wellness, and with a variety of disease conditions. They focus on human anatomy, body function, communication, community health, fundamental nursing skills, nutrition, drug therapy, and elementary medical-surgical nursing.

Practical Nursing II (8358)

Grade level: 12

Credit: 3

Prerequisite: Practical Nursing I

Students learn nursing care of patients of all ages, in various stages of sickness or wellness, with a variety of disease conditions. They focus on human anatomy, body function, communication, community health, fundamental nursing skills, nutrition, drug therapy and elementary medical-surgical nursing. Students have the option to enroll in dual credit nursing courses through Wytheville Community College.

PNE 141, Nursing Skills I, PNE 142, Nursing Skills II, PNE 155, Body Structure and Function, and PNE 173, Pharmacology for Practical Nursing are offered at WCTC as optional dual credit classes in conjunction with WCC provided applicable prerequisites are met.

Precision Machining Technology I (8539)

Grade level: 10*, 11, 12

Credit: 3

Prerequisites: *With the approval of the WCTC Principal and the student's High School Principal

The demand for precision machinists is growing along with the resurgence of the U.S. manufacturing industry. Machinists are highly skilled, creative problem solvers who are task-oriented and self-directed individuals. In this first course, students are taught safety awareness and the foundations of machining, including how to accurately apply measurements, use engineering drawings and sketches, and apply metalworking theory in order to efficiently plan, manage, and perform general machine maintenance and machining jobs. Students will be required to earn a 10 hour OSHA approved safety card through Career Safe.

Precision Machining Technology II (8540)

Grade Level: 11, 12

Credit: 3

Prerequisite: Precision Machining Technology I

The demand for precision machinists is growing along with the resurgence of the U.S. manufacturing industry. Machinists are highly skilled, creative problem solvers who are task-oriented and self-directed individuals. In this advanced course, CNC machining operations are emphasized. Students have the opportunity to increase their skills in applying precise measurements, using engineering drawings and sketches, and applying metalworking theory in order to safely and efficiently plan, manage, and perform general machine maintenance and machining jobs. Students have the opportunity to receive Industry Certification through NOCTI.

MAC 101, Machine Shop Operations, and MAC 102, Machine Shop Practices may be offered at WCTC as optional dual credit classes in conjunction with WCC provided applicable prerequisites are met.

Welding I (8672)

Grade Level: 10*, 11, 12

Credit: 3

Prerequisite: *With the approval of the WCTC Principal and the student's High School Principal

Welding is required by a wide variety of industries—anywhere fusible materials and high heat are needed to manufacture, repair, or alter tools and products. Professional welders are in high demand and can earn accordingly. Students in Welding I are taught to use manual welding, cutting, and electrical arc welding processes to fabricate and join metal parts according to diagrams, blueprints, and specifications. Students will also learn all safety-related practices and techniques, including earning the OSHA 10 card.

Welding II (8673)

Grade Level: 11, 12

Credit: 3

Prerequisite: Welding I or Agricultural Fabrication and Emerging Technologies I

This course teaches advanced welding students how to fine-tune their craft and to perform welds in various positions, using multiple welding processes. Students prepare to pass relevant industry certifications. Welding is required by a wide variety of industries—anywhere fusible materials and high heat are needed to manufacture, repair, or alter products. Professional welders are in high-demand and can earn accordingly.

Work-Based Learning Opportunities

The Profile of a Virginia Graduate describes the knowledge, skills, experiences and attributes that students must attain to be successful in college and/or the work force and to be “life ready.”

In developing the profile, the Board of Education determined that a life-ready Virginia graduate must:

- Achieve and apply appropriate academic and technical knowledge (content knowledge);
- Demonstrate productive workplace skills, qualities, and behaviors (workplace skills);
- Build connections and value interactions with others as a responsible and responsive citizen (community engagement and civic responsibility); and
- Align knowledge, skills and personal interests with career opportunities (career exploration).

The career-planning component of the Profile of a Virginia Graduate provides an opportunity for students to learn more about the employment options and career paths they first explored in elementary and middle school. While there is no specific career-related activity that a student must experience (such as an internship or job-shadowing assignment) to earn a diploma, school divisions must provide opportunities for students to learn about workplace expectations and career options in their own communities and elsewhere. By reducing the number of SOL tests students must pass to earn a diploma, the new standards increase flexibility for schools to expand work-based and service-learning programs that promote college, career and civic readiness.

Please see your School Counselor for options regarding Work-based Learning opportunities you may have.

Overview of VA Department of Education Work-Based Learning Methods of Instruction

Work-based learning is a school-coordinated, coherent sequence of workplace experiences that are related to students’ career goals and/or interests, are based on instructional preparation, and are performed in partnership with local businesses, industries, or other organizations in the community. WBL enables students to apply classroom instruction in a real-world business or service-oriented work environment. The eight WBL methods of instruction currently practiced in Virginia are listed and defined below in order from the lowest to the highest degree of engagement.

Job shadowing is a method of short-term, school-coordinated career exploration in which the student interviews a competent worker about his/her job and industry and “shadows” (follows) the worker to observe the performance of a variety of job tasks. Job shadowing is less intensive than the other methods and is usually the first form of workplace assignment given to a student. Prior to job shadowing, the student receives instruction about careers and the process of career choice, develops appropriate questions to ask, and learns the rules and guidelines for grooming, dress, and behavior in the workplace. Once the student has identified a career interest, path, or goal, job shadowing helps the student make informed career decisions and focus his/her studies. Job shadowing does not provide a standard unit of credit, but the student may enhance his/her class grade through the experience.

Mentorship is a structured, school-coordinated method that enables the student to learn about the industry and the workplace from a selected worker who has a recognized record of achievement in the occupational field. It requires student preparation, including career exploration, prior to the experience. Mentorship is more complex than job shadowing but less demanding and often of shorter duration than internship or service learning. Mentorship does not provide a standard unit of credit, but the student may enhance his/her class grade through the experience.

Service learning is a method in which the student engages in community-service work for a specified number of hours in order to gain developmental experience. Students and teachers cooperate with local leaders to address community problems and issues, resulting in student service to the community and development of personal, workplace-readiness, academic, and citizenship skills. Students engage in critical, reflective thinking and experience the relationship of theory and practice. Service learning does not provide a standard unit of credit, but the student may enhance his/her class grade through the experience.

Internship is a progressive, school-coordinated method that places the student in a real workplace environment in order to develop and practice career-related knowledge and skills needed for a specific entry-level job. An internship can be either introductory (short-term) or extended (lasting a summer, a semester, or an entire school year and involving a specified number of hours in the training agreement). Currently, interns may be paid or unpaid.¹ An internship provides hands-on experience in a particular industry or occupation related to the student's career interests, abilities, and goals, and allows him/her to document job-related experiences. Prior to an internship, the student receives the established criteria and guidelines from the workplace supervisor, and throughout the internship, the supervisor evaluates the student. Internship does not provide a standard unit of credit, but the student may enhance his/her class grade through the experience.

Clinical experience is a form of cooperative education for health and medical sciences students, except that students are not paid for their clinical work. Clinical experience provides the student with an opportunity to integrate knowledge acquired in the classroom with clinical practice, and it affords practice of the fundamental skills, behaviors, and attitudes needed for professional competence in the healthcare field. Clinical experience is based on observation and treatment of patients at different stages of medical practice.

These experiences place students in a variety of healthcare settings so they may better understand the scope of the profession and healthcare needs. Like cooperative education, clinical experience is closely supervised, qualifies students for credit toward graduation, and requires a significant number of on-site hours (established by the Virginia Board of Nursing or the Virginia Department of Health).

Cooperative education is a career preparation WBL method that combines CTE classroom instruction with paid employment that is directly related to the student's plan of study. The school and the employer plan, coordinate, and supervise the instruction and employment so that each contributes directly to the student's career objectives and employability. Students may earn credit toward graduation for cooperative education experiences, and they normally work between 11 and 15 hours per week to achieve a minimum of 396 hours. Currently, 236 CTE courses are taught in Virginia that provide students with the option to participate in a cooperative education experience.

Wythe County Public Schools have collaborated with the Virginia Department of Labor to provide the following work-based opportunities for our students:

Youth Registered Apprenticeship (YRA) *for Students 17 and under* is a career preparation WBL method that integrates school-based and work-based learning to help students gain employability and occupational skills. Local programs provide training based on statewide youth apprenticeship curriculum guidelines, endorsed by business and industry. Students are instructed by qualified teachers and skilled journeyworker worksite experts.

Students are simultaneously enrolled in academic classes to meet high school graduation requirements and in occupation specific related instruction classes. Once an employer becomes an approved YRA sponsor, the student is hired and registered as an apprentice. The participating sponsor/employer provides supervision of a skilled mentor and the student continues on with the Career Technical Education (CTE) training at his/her school. Upon completion of the requirements for a high school diploma, youth registered apprentices may continue as full-time registered apprentices, subject to all standard on-the-job and related instruction requirements.

Registered Apprenticeship *for Students 18 and over* is a career preparation WBL method that provides the student with hands-on training from an experienced mentor at the job site in the specified occupation. Student

apprentices are paid employees of a company. Apprentices receive wages when they begin work, and receive pay increases as they meet benchmarks for skill attainment. This rewards and motivates apprentices as they advance through their training. An apprentice must be paid at least the minimum federal hourly wage.

Upon completion of a Registered Apprenticeship program, the apprentice receives a nationally recognized credential which consists of a Completion Certificate and journeyworker card. This is a portable credential that signifies to employers that employees with the journeyworker status are fully qualified for the job.

Non-Discrimination Notice

Notice of Non-Discrimination: Wythe County Public Schools does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups. The following persons have been designated to handle inquiries regarding the non-discrimination policies: Director of Human Resources or School Social Worker: 1570 W. Reservoir Wytheville, VA 24382, 276-228-5411. You may also contact these individuals at: <https://wythe.k12.va.us/cms/One.aspx?portalId=433983&pageId=2352681> For further information on notice of nondiscrimination, visit <https://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> for the address and phone number of the office that serves your area, or call 1-800-421-3481.

School Nutrition Program:

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the basis of race, color, national origin, age, disability, sex, gender identity, religion, reprisal and, where applicable, political beliefs, marital status, familial or parental status, sexual orientation, or if all or part of an individual's income is derived from any public assistance program, or protected genetic information in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases will apply to all programs and/or employment activities.)

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at [USDA](#), or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter to us by mail at U.S. Department of Agriculture, Director, Office of Adjudication, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, by fax (202) 690-7442 or email at program.intake@usda.gov. Individuals who are deaf, hard of hearing or have speech disabilities may contact USDA through the Federal Relay Service at (800) 877-8339; or (800) 845-6136 (Spanish).

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