

King George High School



Course Selection 2024-2025

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INTRODUCTION

This guide is designed to assist students and their parents/guardians with the course selection process. King George High School has high expectations for our students and we want them to take courses that they find thought provoking, challenging, and interesting.

We encourage our students to enroll in rigorous classes that will prepare them for life beyond high school. The courses that students select now can have an impact on future opportunities. School counselors are knowledgeable about post-secondary requirements and would like to share information received from some of our local universities.

- College preparatory courses weigh heavily on college and university decisions when accepting students.
- Four years of mathematics and science are strongly encouraged. Students should take the highest level of course at which they can be successful.

SCHEDULE CHANGE POLICY

Making adjustments to a student's schedule once the school year has begun disrupts the learning process. The high school budget is prepared, staff is hired, and the master schedule is developed based on student course requests. Therefore, we encourage students and their families to work collaboratively to ensure appropriate courses are selected. We do our best to create a schedule that allows students to be able to take each of the courses that they request. However, this is not always possible due to various scheduling constraints that can occur based on a student's individual requests.

In order to maintain the integrity of our academic programs, schedule changes can only be made if a seat is available and will only be considered under extenuating circumstances, such as:

- If you are in a course that you have already passed.
- If you failed the course, registered for the course again and were assigned the same teacher.
- If you are in a course that you did not choose on your course selection sheet.
- If you received a course for which you have not met the prerequisite.

In the event of an extenuating circumstance, students should pick up the appropriate paperwork for a schedule change. It is the student's responsibility to facilitate this request. Late requests or incomplete forms will not be considered. There will be NO CHANGES to a student's schedule after the first THREE DAYS of classes. After the designated days, students will receive a W/F (Withdraw/Failing) on their transcript and the grade will be recorded on the transcript and count towards GPA/Class Rank. All withdrawals after the three designated days must be approved by the Principal.

AVAILABILITY OF CLASSES

Courses are available to students who have met the stated prerequisites. Occasionally, a particular course will not be available due to an insufficient number of students desiring the course or a scheduling conflict. If a student selects one of these courses, an alternate class must be chosen. While every effort is made to resolve conflicts, in certain situations, students may need to consider alternative choices.

TRANSFER CREDITS

Transfer grades and credits from other school divisions will be accepted by King George County Schools provided the courses are compatible with local and state regulations. Weighted credits will be awarded only to those transfer courses that are also weighted in King George County Schools.

GRADUATION REQUIREMENTS

The requirements for a student to earn a diploma from a Virginia high school shall be those in effect when that student enters the ninth grade for the first time. If a student earns credit for a class prior to the ninth grade and decides to repeat the class at the high school, the student will receive the grade (credit) earned at the high school. Grades earned prior to ninth grade will not be included in determining grade point average (GPA) or rank in class.

INDUSTRY CERTIFICATION

Students completing the required series of classes to become a Career and Technical Education (CTE) program completer are eligible to take an industry certification test. Industry Certification Tests are available in the following career areas: Computer Information Systems, Design Multimedia Web Technology, Drafting, HVAC, Marketing, Sports and Entertainment Marketing, Strategic Marketing, Sheet Metal, Carpentry, Building Trades, Video/Media Production, Teacher Cadets, CNA, Welding, and Workplace Readiness. The industry certification tests are a state or nationally recognized test that can help a student enter the workforce immediately after high school.

LOCAL VERIFIED CREDIT (LVC)

Students may be awarded one LVC toward the five needed to graduate. Locally awarded verified credits can be applied toward either a Standard or Advanced diploma, however credit accommodations for students with disabilities earning a Standard Diploma are not subject to the limit on the number of locally-awarded verified credits that may be earned. To be eligible to earn locally awarded verified credits in English, mathematics, science, or history/social science, a student must:

- Pass the high school course,
- Score within a 375-399 scale score range on any administration of the Standards of Learning after taking the test at least twice, and
- Demonstrate achievement in the academic content through an appeal process administered at the local level.

STANDARD AND VERIFIED CREDITS

A standard unit of credit is awarded for a successfully completed course. 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 assessment or a substitute assessment approved by the Virginia Board of Education.

SEQUENTIAL ELECTIVES

Students seeking Standard or Advanced Studies diplomas must earn at least two electives that are sequential. These must be two electives in one subject area, examples include: Art I and II or Science Fiction Literature I and II, or Accounting and Adv. Accounting. Students should talk with their school counselor for further details.

Standard Diploma Course Requirements

Subject	Standard Credits (Classes)	Verified Credits (SOLs)
English	4	2
Mathematics ¹	3	1
Science ²	3	1
History & Social Sciences ³	3	1
Health and PE (includes CPR/AED)	2	
World Language, Fine Arts or CTE	2	
Economics Personal Finance (includes required virtual course)	1	
Electives ^{4, 5} (includes sequential elective)	4	
Completion of an AP/Honors class OR a CTE credential		
	22	5

¹ Courses completed to satisfy this requirement shall include at least two different course selections from among: Algebra I, Geometry, Algebra II, or other mathematics courses as approved by the Board.

² Courses completed to satisfy this requirement shall include course selections from at least two different science disciplines: earth sciences, biology, chemistry, or physics.

³ Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and either World History/Geography I or World History/Geography II.

⁴ Courses to satisfy this requirement shall include at least two sequential electives as required by the Standards of Quality.

⁵ Students shall either complete an Advanced Placement, honors, or 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, the Armed Services Vocational Aptitude Battery (ASVAB), or the Virginia workplace readiness assessment.

Advanced Studies Diploma Course Requirements

Subject	Standard Credits (Classes)	Verified Credits (SOLs)
English	4	2
Mathematics ¹	4	1
Science	4	1
History & Social Sciences ³	4	1
Health and PE (includes CPR/AED training)	2	
World Language ⁴	3	
Economics Personal Finance (includes virtual course)	1	
Fine Arts or CTE	1	
Electives ⁵ (includes sequential and core subject elective)	5	
Completion of an AP/Honors class OR a CTE credential ⁶		
	28	5

1 Courses completed to satisfy this 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.

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.

3 Courses completed to satisfy this requirement shall include U.S. and Virginia History, U.S. and Virginia Government, and World History/Geography I and World History/Geography II.

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

5 Core subject elective for freshmen entering 2024-2025. All freshmen beginning before 2024-2025 require English elective.

6 Students shall either complete an Advanced Placement, honors, or 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, the Armed Services Vocational Aptitude Battery (ASVAB), or the Virginia workplace readiness assessment.

DIPLOMA SEALS

Governor's Seal: Awarded to students who complete 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 AP or dual enrollment

Board of Education Seal: The Board of Education Seal is awarded to students who complete the requirements for a Standard Diploma or Advanced Students Diploma with an average grade of "A".

Board of Education Career and Tech Education Seal:

- Earn a Standard or Advanced Diploma and complete a prescribed sequence of courses in a career and technical education concentration and maintain a B or better average in those courses.
- OR Pass an exam 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. WISE doesn't count since it is a graduation requirement.
- OR Acquire a professional license in that career and technical education field from the Commonwealth of Virginia.

Board of Education Diploma Seal for Science, Technology, Engineering and Mathematics (STEM)

Awarded to students who complete the requirements for a Standard Diploma or Advanced Students and satisfy all math and science requirements for the Advanced Studies diploma with a "B" average or better in all course work, and

- Successfully complete a 50 hour or more work-based learning opportunity in a STEM area, and
- Satisfy all requirements for a CTE concentration.
- Pass one of the following
 - A BOE CTE STEM H credential examination, Nurses Aide, CBGS, or an examination approved by the Board that confers a college-level credit in a STEM field

Board of Ed Excellence In Civics Education: Awarded to students who completed one of the following:

- ROTC levels 1-4, Eagle Scout, Gold Award, Boys State, Girls State or enlisted in the US military at the time of graduation

Board of Ed Biliteracy Seal: Awarded to students who scored a 3 or higher on the AP Language Exam

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

- Earned a Standard or an Advanced Diploma
- Complete at least three different first level board approved laboratory science courses and at least one rigorous advanced level or postsecondary level lab science course, each with a B or higher
- Complete lab or field science research and present that research in a juried formal setting
- 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.

GRADING

VALEDICTORIAN AND SALUTATORIAN

Class rank can change throughout the course of the school year and as a result there are official reporting times to ensure fairness for all students. In high school the official reporting time is the beginning of each school year (after summer school grades are entered). Seniors will have additional official rankings at the end of semester 1 and after graduation.

COURSE FAILURES/APEX

Students who fail a course during the first term may request to take the course again the second term if space is available. Exceptions include PE classes and Foreign Language classes. Students who fail a course may also go to summer school or take the course again next year. Credit recovery courses are also available using Apex Learning at KGHS. This option will be considered for some students where they need to recover only one or two course credits which is all that stands between them and graduation from high school. These students will have already satisfied seat time requirements for a course in which they were unsuccessful — and may have learned a significant amount of what was expected of them. These students are seeking an opportunity to accelerate through the required course material to earn those final credits.

GRADE CLASSIFICATION

Grade classification is established at the beginning of the school year only. No grade level changes will occur at the end of the first semester. Students' grade classification will be as follows:

Grade 9	
Grade 10	5-9 Credits
Grade 11	10-14 Credits
Grade 12	15 or more credits and eligible for May graduation*

*Please Note: Any student with 15 credits who is not eligible to graduate in May as planned will be placed in Grade 11. Any Grade 11 student with 15 credits who is eligible to graduate in May and has written parent permission to graduate early, on file with their counselor, will be placed in Grade 12. Please discuss this option with your counselor. In accordance with KGCS Policy JQ, students that are eligible to graduate in the summer shall not participate in the graduation ceremony prior to completing all requirements. Eligible students may be given the option of participating in the graduation ceremony the following spring.

WEIGHTED COURSES

The subjects below are designated as weighted courses:

Add 0.5 Points	Add 1.0 Point
English: Honors English 9, Honors English 10, Honors English 11	English: AP English 11, AP English 12, DE English 12
Foreign Lang: Spanish IV, French IV	Foreign Lang: AP Spanish, AP French
Math: Calculus, Honors Algebra II	Math: AP Calculus, AP Statistics, DE Pre-Calculus, AP Pre-Calculus, AP Computer Science

Science: Biology II: Advanced Survey	Science: AP Physics, DE Biology I, DE Biology II
History: Honors Government, Honors World History II, Honors US History	History: AP US Government, AP Human Geography, AP US History, AP European History, DE World History, DE US History
DE CTE: EPF, Accounting, Marketing, Teacher Cadets, Entrepreneurship	DE CTE: Nurse Aide, Adv. Teacher Cadets

VHSL ATHLETICS AND ACTIVITIES ELIGIBILITY

The Virginia High School League (VHSL) established academic guidelines are as follows: The student must be enrolled in and passing at least 3 classes. The student must have passed three subjects for credit during the previous semester. There are additional eligibility requirements outside of academic coursework. Please contact the athletic director for additional information.

STUDENT-ATHLETES

In order to participate in Division I or Division II athletics in college and receive athletically-based financial aid, students must register with the NCAA Eligibility Center and meet eligibility standards. The Clearinghouse ensures that students are academically qualified to play by reviewing their high school transcripts. Students can register anytime, but the process should be complete before the beginning of senior year. More information is available at <http://www.eligibilitycenter.org/> or on the counseling web page.

EARLY GRADUATION OPTION

The only students who will be permitted to graduate before completing eight semesters are those seniors who have written permission from their parents or are 18 with a signed waiver. There will be no December graduation ceremony. All students who complete their graduation requirements at the end of the first semester may return for the May graduation ceremony. If students have not passed all of the required SOL exams prior to the start of the school year, they may not be allowed to graduate after the Fall Semester. Students interested in this option need to meet with their counselor to plan accordingly.

SPECIALITY PROGRAMS

ADVANCED PLACEMENT PROGRAM

AP is a program of college-level courses and exams that give high school students the opportunity to receive advanced placement and/or credit in college. The courses are available to students who are qualified and meet the background requirements. Upon completion of the AP course, students will take the nationally administered examination in May. Based on their score, students may receive college credit or advanced standing for each course taken.

If you are doing college-level work in high school in an AP or honors course, the AP examination can offer the following benefits:

- The opportunity to sharpen your academic skills, allowing you to enter college with the confidence that you can succeed
- Exemption by most colleges and universities from introductory courses and permission to take higher-level courses, enabling you to move ahead in areas of interest, and perhaps to complete your degree requirements earlier

- An opportunity to demonstrate to college your ability and willingness to tackle more difficult courses
- Academic credit that can give you a head start at more than 2,800 colleges
- Tuition savings - finish college earlier
- Time to explore subject areas that you would not otherwise be able to study and time to pursue internships or to study abroad
- The opportunity to set a challenge for yourself and experience the satisfaction of meeting it
- Eligibility for honors and other special programs open to students who have received AP recognition

The following AP courses are typically offered at KGHS. Please speak with your counselor to determine availability and prerequisites -AP English Language, AP English Literature, AP Pre-Calculus, AP Calculus, AP Statistics, AP US History, AP Human Geography, AP European History, AP US Government, AP Physics I, AP Computer Science, AP French, AP Spanish, AP Psychology

*Additional AP Courses are available at CGS and through Virtual Virginia

CHESAPEAKE BAY GOVERNOR'S SCHOOL

Grades 10 - 12

Focus: Marine and Environmental Studies

Mission: The Chesapeake Bay Governor's School for Marine and Environmental Science provides a community of learners with the opportunity to explore connections among the environment, math, science, and technology and develops leaders who possess the research and technical skills, global perspective, and vision needed to address the challenges of a rapidly changing society.

Serving: Students from Caroline, Essex, Gloucester, King George, King William, King and Queen, Lancaster, Mathews, Middlesex, Northumberland, Richmond County, and Westmoreland Public Schools

Site: Caroline School Board Office – Students are transported by King George County transportation from King George High School.

	10 th Grade	11 th Grade	12 th Grade
Block 1 and 2 CBGS	Algebra II and Trigonometry Biology Foundations in Science	Pre-Calculus Chemistry Environmental Science I	Calculus Physics Environmental Science II
Block 3 and 4 KGHS	KGHS Classes		

Admission Criteria:

- o High ability rising 10th, 11th and 12th-grade students.
- o Have a "B" average.
- o Score 85% or higher composite/total score on standardized achievement and/or ability test OR an 85% or higher on a math or science/quantitative subtest.
- o Have successfully completed the following: Algebra I, Geometry, and Earth Science

To apply, rising sophomores, juniors and seniors should see their counselor and request an application. Application deadline is usually at the start of the second semester of freshman year. Visit the CBGS website at <https://cbgs.k12.va.us/>. Interested students who do not meet the above criteria must provide a letter of explanation with the application. All courses meet or exceed the Virginia Standards of Learning (SOL) requirements, as well as offer Dual Enrollment credit through Rappahannock Community College. Admission decisions will be made at the local school division level.

THE COMMONWEALTH GOVERNOR'S SCHOOL

Grades 9-12

The Commonwealth Governor's School (CGS) is an academic year governor's school that provides gifted and highly motivated high school students with a challenging, differentiated, and interdisciplinary program in science, mathematics, social sciences, and English.

Visit the CGS website at <http://cgsva.org>. See your middle school counselor for application information. Application deadline is usually at the start of the second semester for 8th graders. Based on availability applications may open for KGHS students. Please see your counselor if interested.

Subject	9 th Grade	10 th Grade	11 th Grade	12 th Grade
English	Honors English 9	Honors English 10	AP English Language and Composition	AP English Literature and Composition
Mathematics	Honors Algebra II	Honors Geometry -or- Honors Math Analysis	Honors Math -or- AP Calculus AB	AP Calculus BC -or- AP Statistics
Science	AP Environmental	AP Biology	DE Chemistry	AP Physics
Social Studies	AP European History	AP U.S. Government	AP U.S. History	AP Human Geography
Summer	Optional Daily Summer Sessions			

College credit available through dual enrollment. All AP classes have an AP exam at the end of the course.

EARLY COLLEGE SCHOLARS

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. To qualify for the Early College Scholars program, a student must meet the following requirements:

- Have a "B" average or better
- Be pursuing an Advanced Studies Diploma;
- Take and complete college-level course work (i.e. – Advanced Placement, International Baccalaureate, or Dual Enrollment) that will earn at least 15 transferable college credits; and
- Sign an Early College Scholars Agreement ([Early College Scholars Agreement.pdf](#)). Students receive a certificate upon completion of the Early College Scholar program at graduation. Transferable college-level course work includes DE English 12, AP courses, and Teacher Cadets.

VIRTUAL VIRGINIA

Virtual Virginia course offerings are available in some cases. Virtual Virginia students must complete a contract and obtain written permission from school officials. Students are encouraged to meet with their counselor to discuss their plans for Virtual Virginia courses BEFORE March 31. Students will be required to take their Virtual VA class at KGHS during school hours. Adding and dropping classes will be allowed ONLY during the second and third day of each semester. After the designated days, the students will receive a W/F (Withdraw/Failing) on their transcripts. After the first interim period, students who withdraw will be assigned an "F" and the grade will be recorded on the transcript and count on GPA/Class Rank.

CAREER AND TECHNICAL EDUCATION (CTE)

Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality world-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

AGRICULTURE

Agricultural Science is a broad multidisciplinary field of biology that encompasses natural, economic, and social sciences that are used in the practice and understanding of agriculture. Membership in the Future Farmers of America (FFA) is strongly encouraged.

HORTICULTURE SCIENCES

Course Number: 8034

Grades: 9-12

Students develop the necessary knowledge, skills, habits, and attitudes for entry into employment and advancement in areas such as floriculture, landscape design, greenhouse operations, and production, and turf management. Students receive instruction in using soil and other growing media and in identifying, propagating, and growing horticultural plants in the greenhouse lab. Instruction is provided in safety practices and leadership development. Membership in FFA is encouraged.

GREENHOUSE PLANT PRODUCTION AND MANAGEMENT

Course Number: 8035

Grades: 10-12

Prerequisite(s): Horticulture Science

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

LANDSCAPING I

Course Number: 8036

Grades: 10-12

Prerequisite(s): Horticulture Science

Students develop the necessary knowledge, skills, habits, and attitudes for entry into employment and advancement in areas such as landscape design, construction and maintenance. Students receive instruction in sketching and drawing, analyzing a landscape site, function and aesthetics, identifying and selecting landscape plants, purchasing and installation, maintaining the landscape by watering, fertilizing, mulching, pruning, and pest control. Leadership development is offered through participation in FFA.

LANDSCAPING II

Course Number: 8039

Grades: 11-12

Prerequisite(s): Landscaping I

In this course, students examine contemporary garden design from a historical perspective. Commercial and high-end residential landscape designs are developed that incorporate a wide range of specialty garden styles. Landscape projects are approached from an entrepreneurial aspect. Business management issues considered include contract estimating for installation and maintenance projects, the role of professional organizations, educational opportunities for landscape professionals, development of a business plan and management of human resources. Applications of technology in the design process and management of a landscape business are researched. The course emphasizes leadership development through participation in FFA.

AGRICULTURAL EDUCATION PREPARATION

Course Number: 18003 **Grades:** 11-12

Prerequisite(s): Successful completion of an approved sequence of courses from the Agricultural dept.

Agricultural Preparation includes supervised on-the-job training, record keeping of wages and hours, and reporting in journal style what happens on the job. Students utilize what they have gained in their classroom coursework to compete in the outside job market, earning a fair wage for work done. Their Agricultural Co-Op Coordinator evaluates the student with her/her on the job supervisor at least four (4) times during the school year. Students average 11-15 hours per week on the job. Agricultural Co-Op is a year-long course. Students must work both semesters to earn this credit. Co-Op application must be returned prior to the instruction. Membership in FFA is encouraged.

BUSINESS AND INFORMATION TECHNOLOGY

Future Business Leaders of America (FBLA) is an association of all business students and is a co-curricular activity in all business classes that combine educational and leadership development activities with classroom instruction. All business students are automatically FBLA members. Dues paying FBLA members can participate in local, state, and national leadership development conferences and competitions. It is strongly encouraged for all business students to be involved with FBLA.

INFORMATION TECHNOLOGY (IT) FUNDAMENTALS

Course Number: 6670 **Grades:** 9-12

Prerequisite(s): None

IT Fundamentals introduces the essential skills needed for students to pursue specialized programs leading to technical and professional careers and certifications in the IT industry. Students have an opportunity to investigate career opportunities in four major IT areas: Information Services and Support, Network Systems, Programming, and Software Development, and Interactive Media. The focus of the IT Fundamentals course is on introducing skills related to information technology basics, Internet fundamentals, network systems, computer maintenance, upgrading, troubleshooting, computer applications, programming, graphics, Web page design, and interactive media. Students explore ethical issues related to computers and Internet technology and develop teamwork and communication skills that will enhance their employability. Membership in FBLA is strongly encouraged.

COMPUTER INFORMATION SYSTEMS

Course Number: 6612

Grades: 9-12

Prerequisite(s): Recommended - Information Technology (IT) Fundamentals

Students will explore computer concepts and ethical issues related to computers and computer systems. Students will learn problem-solving skills for real-life situations while learning how to manage computer systems and identify devices and methods for communicating electronically. Students are introduced to business applications and career opportunities through the use of word processing, spreadsheets, databases, and multimedia presentations specifically through the use of Microsoft Office applications. Students will be given the opportunity to obtain Microsoft Office Specialist (Associate) certification in Word, Excel and PowerPoint. Membership in FBLA is strongly encouraged.

ADVANCED COMPUTER INFORMATION SYSTEMS

Course Number: 6613

Grades: 10-12

Prerequisite(s): Computer Information Systems

Students apply problem-solving skills to real-life situations through advanced integrated software applications, including printed, electronic, and web publications. Students work individually and in groups to explore advanced computer maintenance activities, website development, programming, networking, emerging technology, and employability skills. Students enhance computer information technology skills through the use of advanced integrated applications to create documents, publications, and websites including complex graphs, customized reports, and multimedia presentations. Students will be given the opportunity to obtain Microsoft Office Specialist certification. Membership in FBLA is strongly encouraged.

DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES

Course Number: 6630

Grades: 10-12

Prerequisite(s): Recommended - Information Technology (IT) Fundamentals

Students will 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. This course uses current versions of Illustrator, Photoshop, and Dreamweaver. Membership in FBLA is strongly encouraged.

ADVANCED DESIGN, MULTIMEDIA, AND WEB TECHNOLOGIES

Course Number: 6631 **Grades:** 10-12

Prerequisite(s): Design, Multimedia, and Web Technologies

The successful completion of these two courses gives the student CTE completer status and will receive a CTE Completer Seal on his/her diploma if the courses are completed with a B average. Students develop advanced skills in creating interactive media, Web sites, and publications for print and electronic distribution. Students work with hardware and software applying skills learned to real-world projects. Completion of this course may prepare students for industry certifications. Membership in FBLA is strongly encouraged.

ACCOUNTING

Course Number: 6320

Grades: 10-12

Prerequisite(s): Recommended - Good math background and keyboarding skills, Completed RCC application, passed RCC entrance criteria/exam (for those choosing the dual enrollment option)

Note: Not every student in this course will take it for dual enrollment credit. However, students who do want dual enrollment credit must complete the RCC application and pass the RCC entrance criteria/exam

Accounting emphasizes accounting principles as they relate to both manual and computerized financial systems. Instruction integrates microcomputers and electronic calculators as the relationships and processes of annual and computerized accounting are presented. Membership in FBLA is strongly encouraged. Students may choose to take this class for dual enrollment credits through Rappahannock Community College. Students choosing to take this class for Dual Enrollment credit must complete the RCC application and meet their admissions criteria. Membership in FBLA is strongly encouraged.

ADVANCED ACCOUNTING

Course Number: 6321

Grades: 10-12

Prerequisite(s): Accounting, Completed RCC application, passed RCC entrance criteria/exam (for those choosing the dual enrollment option)

Note: Not every student in this course will take it for dual enrollment credit. However, students who do want dual enrollment credit must complete the RCC application and pass the RCC entrance criteria/exam.

Advanced Accounting is designed to utilize microcomputers to automate, analyze, and interpret business applications including payrolls, inventory, accounts payable, and accounts receivable. Management of financial records through various business activities, partnership and corporate accounting, general ledger, and cost accounting are also included. FBLA membership is strongly encouraged. Students may choose to take this class for dual enrollment credits through Rappahannock Community College. Students choosing to take this class for Dual Enrollment credit must complete the RCC application and meet their admissions criteria.

ECONOMICS AND PERSONAL FINANCE

Course Number: 6120

Grades: 11-12

Prerequisite(s): None, Completed RCC application, passed RCC entrance criteria/exam (for those choosing this option)

Note: Not every student in this course will take it for dual enrollment credit. However, students who do want dual enrollment credit must complete the RCC application and pass the RCC entrance criteria/exam

Students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career success. In addition to developing personal finance skills, students in the course will also study basic occupational skills and concepts in preparation for entry-level employment in the field of finance. The course incorporates all economics and financial literacy objectives included in the Code of Virginia §22.1-200-03B. Students will evaluate the economic value of postsecondary studies, including the cost of attendance, potential student loan debt, and potential earnings. Note: As enacted by the General Assembly of 2011 and prescribed by the Board of Education, beginning with students who enter the ninth-grade class of 2011-2012 and beyond, students shall earn one (1)

standard credit in Economics and Personal Finance in fulfillment of the graduation requirement for the Standard and Advanced Studies diplomas. The one (1) standard credit earned for the Economics and Personal Finance course (6120) shall count only once towards graduation requirements. Students will be administered the W!SE Financial Literacy Certification Test. Students may choose to take this class for dual enrollment credits through Rappahannock Community College. Students choosing to take this class for Dual Enrollment credit must complete the RCC application and meet their admissions criteria. Membership in FBLA is strongly encouraged.

BUSINESS LAW

Course Number: 6131

Grades: 10-12

Prerequisite(s): None

Students will examine the foundations of the legal system and learn the rights and responsibilities of citizens and businesses. Students gain knowledge and skills by exploring economic and social concepts related to laws governing business and individuals. Focus areas include contracts, commercial and consumer law, criminal law, tort law, international law, family/domestic law, agency and employment law, cyber law, and careers in the legal profession. Membership in FBLA is strongly encouraged.

BUSINESS MANAGEMENT

Course Number: 6135

Grades: 10-12

Prerequisite(s): None

Students study basic management concepts and leadership styles as they explore business ownership, planning, operations, marketing, finance, economics, communications, the global marketplace, and human relations. Quality concepts, project management, problem solving, and ethical decision making are an integral part of the course. Students' leadership skills may be enhanced by participation in school-based or virtual enterprises, job shadowing, internships, apprenticeships, and cooperative education. Membership in FBLA is strongly encouraged.

CYBERSECURITY FUNDAMENTALS

Course Number: 6302

Grades: 9-12

Prerequisite(s): None

Cybersecurity affects every individual, organization, and nation. This course focuses on the evolving and pervasive technological environment with an emphasis on securing personal, organizational, and national information. Students will be introduced to the principles of cybersecurity, explore emerging technologies, examine threats and protective measures, and investigate the diverse high-skill, high-wage, and high-demand career opportunities in the field of cybersecurity. Exciting opportunities will be presented to use interactive current resources in the study of cybersecurity such as Virginia Cyber Range, Virginia Space Grant Consortium, and Cyber.Org. Students will have the opportunity to prepare for success on related industry certifications aligned to the course content. Membership in FBLA is strongly encouraged.

CYBERSECURITY OPERATIONS

Course Number: 6304

Grade Level: 10-12

Prerequisite(s): Cybersecurity Fundamentals

Cybersecurity Operations is designed to teach computer and network administration and security. Students learn cybersecurity concepts, including the practice of protecting systems, networks, and programs from digital

attacks. Cybersecurity is defined as the steps and processes taken to protect networks, devices, programs, and data from unauthorized access that can result in theft or damage. Students learn to establish, implement, and maintain security networks. Membership in FBLA is strongly encouraged.

JAVA PROGRAMMING

Course Number: 6660

Grades: 9-12

Prerequisite(s): Geometry

Students study Java, perhaps the most widely used object-oriented, class-based, general-purpose programming language, to create and manipulate database objects and applications. Instruction will emphasize preparation for industry certification. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills.

PROGRAMMING

Course Number: 6640

Grades: 10-12

Prerequisite(s): Java Programming

Students in the Programming course explore programming concepts, use algorithmic procedures, implement programming procedures with one or more standard languages, and master programming fundamentals. Coding is used throughout the course. Graphical user interfaces may be used as students design and develop interactive multimedia applications, including game programs. In addition, students employ hypertext markup language (HTML) or JavaScript to create web pages. Students develop their employability skills through a variety of activities. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills.

ADVANCED PLACEMENT (AP) COMPUTER SCIENCE A

Course Number: 3185

Grades: 11-12

Prerequisite(s): Algebra II, Programming

AP Computer Science A is a programming class. The course emphasizes object-oriented programming methodology, especially problem solving and algorithm development, plus an overview of data structures and abstraction. The AP Computer Science A exam tests students on their knowledge of Java.

VIDEO/MEDIA TECHNOLOGY

Course Number: 8497

Grades: 9-12

Prerequisite(s): None

In this project-based course, students will explore the elements of video production, lighting design, camera operation, script writing, and advertising. Students will develop skills in pre and post-production techniques through the creation of short broadcasts which will be aired throughout the school. Students will learn to operate equipment such as video cameras/recording equipment, microphones, and audio/video editing systems. They will practice skills related to production, direction, and scripting of programs as well as set design and construction. Students will learn control room procedures and responsibilities. FBLA membership is strongly encouraged.

MARKETING

DECA, the co-curricular student organization, is an activity for all marketing students that provides educational and leadership development activities which merge with classroom instructional programs. This organization has local, regional, state, and national leadership development conferences and competitions for its members and teams. It is strongly encouraged that all marketing students be involved with DECA.

PRINCIPLES OF BUSINESS AND MARKETING

Course Number: 6115

Grades: 9-12

Prerequisite(s): None

This course will provide students the opportunity to sample both marketing and business topics of study at their most basic levels. It will allow the students to make an educated choice on which CTE pathway they want to pursue as upperclassmen. Students explore 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. Membership in FBLA is strongly encouraged.

MARKETING EXPLORATION

Course Number: 8110

Grades: 9-12

Prerequisite(s): Recommended - Principles of Business and Marketing

Students gain basic knowledge about 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 (SOL). Computer/technology applications and DECA activities support this course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. Students will also be provided the opportunity to run a small group or class business based on their own design for providing a service or product needed at our school or in our community. In this course, they will learn business terminology, basic entrepreneurship concepts, and fundamental business operating principles. Membership in DECA is strongly encouraged.

ENTREPRENEURSHIP

Course Number: 9093

Grades: 9-12

Prerequisite(s): None

Note: Not every student in this course will take it for dual enrollment credit. However, students who do want dual enrollment credit must complete the RCC application and pass the RCC entrance criteria/exam

This course introduces students to the exciting world of creating, owning, and launching their own business. Students will learn concepts and techniques for planning an entrepreneurial venture, using design thinking and business model development. Students will learn about financial statements, marketing principles, sales and

customer service, and basic economic principles for successful operation. Contextual instruction and student participation in co-curricular career and technical student organizations (DECA) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

MARKETING

Course Number: 8120

Grades: 10-12

Prerequisite(s): Recommended - Principles of Business and Marketing and/or Marketing Exploration Completed RCC application, passed RCC entrance criteria/exam (for those choosing the dual enrollment option)

Note: Not every student in this course will take it for dual enrollment credit. However, students who do want dual enrollment credit must complete the RCC application and pass the RCC entrance criteria/exam

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. The cooperative education method (Marketing Co-Op 8120C) is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Students will be administered the industry certification from the National Retail Federation in Business of Retail (if passed Customer Service and Sales in a previous class) at the end of the school year and be considered a "CTE Completer" with a completion of this course and its previous sequence. Membership in DECA is strongly encouraged. Students may choose to take this class for dual enrollment credits through Rappahannock Community College. Students choosing to take this class for Dual Enrollment credit must complete the RCC application and meet their admissions criteria.

MARKETING CO-OP

Course Number: 8120C **Grades:** 11-12

Prerequisite(s): Must be taking Marketing #8120 in the same year as the co-op. The credits for the course and the co-op are tied together. This is a year-long 1-credit course. Co-Op application must be returned to the instructor.

This course is a companion course in Marketing #8120. Marketing Co-Op (Cooperative Education) includes supervised on-the-job training, record keeping of wages and hours, and reporting in a journal style of what happens on the job. Students utilize what they have gained in their classroom Marketing #8120 coursework to compete in the outside job market, earning a fair wage for work done. The Marketing Co-Op Coordinator evaluates the student with his/her on-the-job supervisor during the school year. Students earn one credit for this course, holding a job for the whole school year, working a minimum number of hours, averaging 11 to 15 hours per week. The student must receive credit for Marketing #8120 in order to receive a credit for Marketing Co-Op #8120C. Membership in DECA is strongly encouraged.

STRATEGIC MARKETING

Course Number: 8130 **Grades:** 11-12

Prerequisite(s): Marketing or Sports and Entertainment Marketing, Completed RCC application, passed RCC entrance criteria/exam (for those choosing the dual enrollment option)

Note: Not every student in this course will take it for dual enrollment credit. However, students who do want dual enrollment credit must complete the RCC application and pass the RCC entrance criteria/exam

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). Computer/technology applications and DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. The cooperative education method (Advanced Marketing Co-Op 8130C) is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Students will also be administered the Industry Certification from the National Retail Federation in Customer Services & Sales - Level 2 (if passed Level I in a previous class) at the end of the school year and be considered a "CTE Completer" with the completion of this course and its previous sequence. Membership in DECA is strongly encouraged. Students may choose to take this class for dual enrollment credits through Rappahannock Community College. Students choosing to take this class for Dual Enrollment credit must complete the RCC application and meet their admissions criteria

ADVANCED MARKETING CO-OP

Course Number: 8130C **Grades:** 11-12

Prerequisite(s): Must be taking Advanced Marketing #8130 in the same year as the Co-Op. This is a year-long 1 credit course. Co-Op application must be returned to the instructor.

This course is a companion course to Advanced Marketing #8130. Advanced Marketing Co-Op (Cooperative Education) includes supervised on-the-job training, record keeping of wages and hours, and reporting in a journal style of what happens on the job. Students utilize what they have gained in their classroom Advanced Marketing #8130 coursework to compete in the outside job market, earning a fair wage for work done. The Marketing Co-Op Coordinator evaluates the student with his/her on-the-job supervisor during the school year. Students earn one credit for this course, holding a job for the whole school year, working a minimum number of hours, averaging 11 to 15 hours per week. The student must receive credit for Advanced Marketing #8130 in order to receive a credit for Advanced Marketing Co-Op #8130C. Membership in DECA is strongly encouraged.

SPORTS AND ENTERTAINMENT MARKETING

Course Number: 8175 **Grades:** 10-12

Prerequisite(s): Recommended: Principles of Business and Marketing and/or Marketing Exploration

This course helps students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports, entertainment, and recreation industries. Students will investigate the components of branding, sponsorships, and endorsements, as well as promotion plans needed for sports, entertainment and recreation events. The course also supports career development skills and explores career options. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course.

DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. The cooperative education method (Marketing Co-Op 8120C) is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Students will be administered by the National Retail Federation Industry Certification in Customer Service & Sales. Membership in DECA is strongly encouraged.

SPORTS AND ENTERTAINMENT MANAGEMENT

Course Number: 8177

Grades: 11-12

Prerequisite(s): Sports and Entertainment Marketing or Marketing

Students will build on prior knowledge of sports, entertainment, and recreation marketing. This course focuses on the principles of management and planning supported by research, financial, and legal concepts. Students will be able to plan and execute an event, develop a career plan, and establish sports, entertainment, or recreation marketing product/business. Academic skills (mathematics, science, English, and history/social science) related to the content are a part of this course. Computer/technology applications supporting the course are studied. DECA activities enhance the course. DECA, the co-curricular student organization, offers opportunities in leadership, community, and competitive events. The cooperative education method (Advanced Marketing Co-Op 8130C) is available for this course. Students combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year. Students will also take an Industry Certification test at the end of the school year and be considered a “CTE Completer” with the completion of this course and its previous sequence. Students will be administered the National Retail Federation Industry Certification in Customer Service & Sales - Level 2 (if passed Level 1 in a previous class). Membership in DECA is strongly encouraged.

TRADE AND INDUSTRY

Trade and industrial education prepares students for careers in a variety of trades, including carpentry, construction, computer-aided drafting, welding, sheet metal, criminal justice, game design, video/media technology, ROTC, health and medical sciences, and teachers for tomorrow. Membership in the related student organization is highly recommended: SkillsUSA, HOSA, and Educators Rising.

DRAFTING - FUNDAMENTALS

Course Number: 8530

Grades: 9-12

Prerequisite(s): Algebra I Part I or Algebra I

This course is recommended for students who are interested in technical fields such as architecture, engineering, construction. The course emphasizes fundamental mechanical drawing concepts and techniques. Students explore drafting and STEM careers and theory. They gain the manipulative skills necessary to produce and complete accurate manufacturing and construction drawings based on the ideas and sketches of engineers, architects, and designers. The projection, visualization, and interpretation of two-dimensional and three-dimensional objects are explored. The student is also introduced to computer-aided drafting (CAD) using Autodesk drafting software. Students will focus on performing mechanical drafting and design operations, using manual drafting techniques and computer-aided design and drafting (CADD). Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership,

interpersonal, and career skills. **This course is a prerequisite for Drafting – Mechanical, and Drafting – Architectural.**

DRAFTING - MECHANICAL

Course Number: 8531

Grades: 10-12

Prerequisite(s): Drafting - Fundamentals, Completion of Geometry recommended

This course focuses on creating mechanical drawings for manufacturing purposes. Building on competencies taught in Drafting I, students master the theory and manipulative skills necessary to produce complete and accurate drawings based on the ideas and sketches of engineers, architects, and designers. New skills learned include developing auxiliary views, reading tolerances, applying & interpreting weld symbols, specifying fasteners, additive manufacturing (3D printing) and the logic of mechanical assembly. Students focus on performing mechanical drafting and design operations, using manual drafting, computer-aided design and drafting (CADD), and additive manufacturing (3D printing) techniques. Using 2D and 3D computer-aided design (CAD) software is integral to this course. Students explore careers in drafting, including industry certification options. All students will take an industry certification exam as part of this program. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

DRAFTING - ARCHITECTURAL

Course Number: 8532 **Grades:** 10-12

Prerequisite(s): Drafting - Fundamentals, Completion of Geometry recommended

This course focuses on the creation of code compliant architectural drawings focusing on residential design. The student learns to prepare site plans, floor and foundation plans, electrical plans, elevations, wall sections and structural details. Both manual and CAD techniques are taught and utilized, with the focus on CAD using Autodesk design software. Building on competencies taught in Drafting I, students are taught the theory and the manipulative skills necessary to produce and complete accurate drawings based on the ideas and sketches of engineers, architects, and designers. Students focus on performing architectural drafting and design operations, using manual drafting techniques and computer-aided design and drafting (CADD). Students explore careers in drafting, including industry certification options. All students will take an industry certification exam as part of this program. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

DRAFTING - ADVANCED

Course Number: 8562 **Grades:** 12

Prerequisite(s): Application and teacher recommendations; Completion of Drafting - Fundamentals, Drafting - Mechanical, and Drafting - Architectural courses with a minimum grade of C.

This course provides an opportunity for students to engage in a directed study on an individual basis rather than in a formal class environment. Students may choose to expand their knowledge in either Mechanical or

Architectural Drafting. Students must complete a capstone design project as part of this course which will allow them to showcase their knowledge, skills, and abilities.

BUILDING TRADES I

Course Number: 8515

Grades: 9-12

Prerequisite(s): Algebra Part I or Algebra I

This course introduces students to skills in the four core areas of residential construction: masonry, carpentry, electricity, and plumbing. Students emphasize safety by earning the Construction Industry Occupational Safety and Health Administration (OSHA) 10 card as they build or repair residential structures, using a variety of materials and tools. Students will also learn current residential building codes associated with the trades. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.. Membership in Skills USA is strongly encouraged.

BUILDING TRADES II

Course Number: 8516

Grades: 10-12

Prerequisite(s): Building Trades I

Students will experience all aspects of the Construction Industry. Using a hands-on approach, students learn current methods of the building trades; from foundations to roofing, studding to trim work, designing to inspections. This course is designed to prepare students for apprenticeship in the world of construction. Students will be administered the SkillsUSA: Carpentry Examination. Membership in Skills USA is strongly encouraged.

CARPENTRY I

Course Number: 8601

Grades: 9-12

Prerequisite(s): None

This course is foundational for achieving high-level construction industry skills that can result in an exciting and lucrative career. With an emphasis on safety, students are taught to use hand and power tools, cut stock, apply construction mathematics, interpret blueprints, and understand basic rigging. Students will become proficient in identifying types of residential construction components to frame walls, floors, ceilings, roofs, doors, and windows. All students will obtain the required Construction Industry OSHA 10 safety credential. Membership in SkillsUSA is strongly encouraged.

CARPENTRY II

Course Number: 8602

Grades: 10-12

Prerequisite(s): Carpentry I

Students are taught the safe use of hand and power tools common to the industry. Students will become proficient in assembling and installing various types of residential construction components that are current with industry standards including rigging and job estimating procedures, firming foundations, framing floors, walls, ceiling, roofs, trusses, roofing materials, stairs, exterior doors and windows, decks, and porches. Successfully

passing this course leads to CTE program completion. Students will be administered the SkillsUSA Carpentry Examination. Membership in SkillsUSA is strongly encouraged.

SHEET METAL I

Course Number: 8663

Grades: 9-12

Prerequisite(s): None

Students will learn about basic layout and forming of sheet metal by way of classroom discussion, demonstration, and many hands-on activities. They will learn reading a ruler, appropriate math, and layout along with proper use of hand tools and stationary machines to facilitate the construction of numerous projects. The ability to read a ruler, or learn to read a ruler is essential. Safety will always be the foremost concern. Students will be encouraged to participate in co-curricular activities such as SkillsUSA.

SHEET METAL II

Course Number: 8664

Grades: 10-12

Prerequisite(s): Sheet Metal I

The techniques and projects get more complex and require a higher level of expertise in this advanced Sheet Metal class. Students will study more complicated and detail the methods of layout and construct more difficult projects. Safety will always be the foremost concern. Students will be encouraged to participate in co-curricular activities such as SkillsUSA.

WELDING I

Course Number: 8672

Grades: 9-12

Prerequisite(s): None

Students will learn basic metal hand fabrication skills to complement the study of arc welding, wire welding, oxy-fuel cutting, and plasma arc cutting by way of many hands-on activities. They will learn the proper and safe use of hand and power tools commonly used for metal fabrication. The ability to read a ruler, or learn to read a ruler is essential. Safety will always be the foremost concern. Students will be encouraged to participate in SkillsUSA.

WELDING II

Course Number: 8673

Grades: 10-12

Prerequisite(s): Welding I

While students hone their basic skills from Welding I, they will study FCAW, MIG welding, and TIG welding. They will learn advanced techniques and procedures for metal fabrication. Safety will always be the foremost concern. Students will be encouraged to participate in co-curricular activities such as SkillsUSA. Students will be administered the SkillsUSA: Welding Examination

CONSTRUCTION TECHNOLOGY

Course Number: 8431

Grades: 9-12

Prerequisite(s): None

Students will study many aspects of the construction industry including safety, the use of hand and power tools, carpentry, electricity, plumbing, welding, and workplace readiness in order to assist them in understanding the many options of career pathways. Armed with a general knowledge, students may choose to take one or more of the career opportunities offered here at KGHS and/or elsewhere. Students will have the opportunity to participate in many hands-on activities, as well as participating in co-curricular clubs such as SkillsUSA.

CRIMINAL JUSTICE I

Course Number: 8702

Grades: 9-12

Prerequisite(s): None

Students are introduced to law, public safety, corrections, and security practices. Students examine contemporary issues in the criminal justice system and explore crime scene investigation, criminal investigation, court procedures, policing, and juvenile justice. This course provides a foundation for careers as lawyers, as forensics specialists, and as law enforcement and corrections officers. Membership in SkillsUSA is strongly encouraged.

CRIMINAL JUSTICE II

Course Number: 8703

Grades: 10-12

Prerequisite(s): Criminal Justice I

Students are introduced to law, public safety, corrections, and security practices. Students examine contemporary issues in the criminal justice system and explore crime scene investigation, criminal investigation, court procedures, policing, and juvenile justice. This course provides a foundation for careers as lawyers, as forensics specialists, and as law enforcement and corrections officers. Membership in Skills USA is strongly encouraged.

TEACHERS FOR TOMORROW (TEACHER CADETS)

Course Number: 90620 **Grades:** 11-12

Prerequisite(s): Application and teacher recommendations. There is also a GPA requirement (2.7 or above).

Note(s): This course may be taken for DE credit(s), EDU 200.

The Teachers for Tomorrow course introduces juniors and seniors to a career in teaching and education. The primary elements of the curriculum components are Experiencing Learning, Experiencing the Profession, and Experiencing the Classroom. The components are intentionally broad in scope and provide great flexibility based on the career interest of the student. In addition to the fundamental curriculum components, all students are to observe and participate in a 15-hour internship outside the Teachers for Tomorrow classroom. The internship may be done from preschool through 9th grade.

ADVANCED TEACHERS FOR TOMORROW (TEACHER CADETS)

Course Number: 9072

Grades: 11-12

Prerequisite(s): Teachers for Tomorrow

Note(s): This course may be taken for DE credit(s), EDU 204.

The Advanced Teachers for Tomorrow course will continue immersing the students in the career of education.

The cadets will work with the Teachers for Tomorrow instructor to determine their long-term learning goals as well as their potential path into the teaching field. They will participate in a semester-long internship/co-op that will provide them with hands-on experience in the classroom. Cadets will be required to meet with the Teachers for Tomorrow instructor for debriefing sessions and evaluations. Cadets will also complete an extensive portfolio for submission. The internship may be done at the elementary, middle school, or 9th-grade level. Students must provide their own transportation. Membership in Educators Rising is strongly encouraged.

INTRODUCTION TO HEALTH AND MEDICAL SCIENCES

Course Number: 8302

Grades: 9-12

Prerequisite(s): None

This course introduces the student to a variety of healthcare careers and develops basic skills required in all health and medical sciences. It is designed to help students understand the key elements of the U.S. healthcare system and to learn basic healthcare terminology, anatomy, and physiology for each body system, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of traumatic and medical emergency care. Throughout the course, instruction emphasizes safety, cleanliness, asepsis, professionalism, accountability, and efficiency within the healthcare environment. Students also begin gaining job-seeking skills for entry into the health and medical sciences field. In addition, the instruction may include the basics of medical laboratory procedures, pharmacology fundamentals, biotechnology concepts, and communication skills essential for providing quality patient care. HOSA membership is strongly encouraged.

NURSE AIDE (CNA)

Course Number: 8360

Grades: 11-12 with priority given to seniors

Prerequisite(s): Students must test into the program by meeting the placement test requirements through Rappahannock Community College. Students may test any evening Monday-Thursday from 4 p.m. to 8:30 p.m. No appointment is needed. There is no cost to test. Maximum of 10 students in the course per block.

The Nurse Aide program is a college-level course with dual enrollment through Rappahannock Community College. This full-year program is designed to help a student learn basic knowledge and develop skills necessary to become a nurse aide. At the completion of the program, students will be eligible to take the State Board Licensure Exam to become a Certified Nurse Aide. Successful completion of the exam allows the student to be placed on the Virginia Nurse Aide Registry. In the classroom, students will experience a combination of workbook review, lectures, videos, and interactive discussion. Students will be involved in role-playing, skills practice/review, and a multitude of hands-on activities. Students are required to complete 140 hours of class time and 40 hours of client care. Students will be responsible for approximately \$150 to purchase scrubs, vaccines, Criminal Background Check for students 18 and older, become CPR certified, and name tags. Students also have to pay to have a urine drug test before they are eligible to attend clinicals. HOSA membership is strongly encouraged.

MEDICAL TERMINOLOGY

Course Number: 8383

Grades: 10-12

Prerequisite(s): None

Medical Terminology provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage.

Emphasizes more complex skills and techniques in understanding medical terminology. HOSA membership is strongly encouraged.

MEDICAL ASSISTANT I & II

Course Number: 14151

Grades: 11-12

Prerequisite(s): None

Students gain foundational knowledge in basic anatomy and physiology, pharmacology, medical ethics, medical asepsis, medical terminology, medical mathematics, and legal responsibilities. Students also develop basic skills and techniques to assist the healthcare provider and/or other medical professionals in patient examinations, basic emergency care, simple laboratory tests, selected treatments and administrative duties. This is a full year class with part I and II taken sequentially working toward industry credential. Additionally, students explore medical assisting career pathways through HOSA-Future Health Professionals and potential on-the-job clinical instruction and/or observation in a healthcare facility. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQWBL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations. HOSA membership is strongly encouraged.

NJROTC

NAVAL JUNIOR RESERVE OFFICER TRAINING CORPS curriculum overview: The Naval Service Training Command (NSTC) prescribes the courses for naval science for NJROTC. NSTC routinely updates the curriculum to include new texts, instructional materials, and lesson plans. The curriculum is developed and revised by civilian educators and NJROTC instructors. The wide variety of subjects may include the following:

Citizenship: Installation of values of good, responsible citizenship

Physical Fitness: Activities to promote healthy, active lifestyles

Drills, Commands, and Ceremonies: Close order drill and parade ceremonies

Leadership: Ongoing study of leadership, with opportunities to develop leadership abilities

Naval Orientation: Basic introduction to the Navy's customs and traditions

Naval Operations/Organization: Familiarization with national naval strategy and daily military operation

Naval History: History of the United States Navy from the colonial period to the present

Navigation: Introduction to piloting and navigation

Seamanship: Introduction to basic seamanship and ship handling

Nautical Astronomy: Study of astronomy and its use in navigation

Electronics: Introduction to electronics as the basis for communication and weapons systems

Oceanography: Information on the collection of data on the world's ocean systems

NJROTC I

Course Number: 7913 **Grades:** 9-12

Prerequisite(s): Students must be able to actively participate in physical fitness. Students must have a current VHSL physical. This class requires an application. Your counselor has access to the application.

Notes: Students taking NJROTC I are not allowed to enroll in NJROTC II during the same school year without instructor approval. Certain expectations for apparel and behavior apply.

The purpose of this course is to introduce students to the meaning of citizenship, the elements of leadership, and basic military customs and courtesies. This program promotes an awareness of the importance of a healthy lifestyle, including physical fitness, a proper diet, controlling stress, and drug awareness. These elements are pursued at a fundamental level. The course includes an introduction to the NJROTC program, introduction to leadership, citizenship and the American government, introduction to close order drill, introduction to wellness, fitness and first aid to include diet, exercise and drug awareness, and introduction to the US Navy.

NJROTC II

Course Number: 7916 **Grades:** 10-12

Prerequisite(s): Successful completion of NS1 curriculum with a grade of C or better. Students must be able to actively participate in physical fitness. Students must have a current VHSL physical.

Notes: Students taking NJROTC II are not allowed to enroll in NJROTC III during the same school year without instructor approval.

The purpose of this course is to build on the general introduction provided in NJROTC I as well as to further develop the traits of citizenship and leadership. Cadets will be exposed to an increased level of physical fitness, as well as be required to march a unit for close order drill. The course includes ongoing instruction into citizenship, followership, leadership traits, soft skills, and leadership principles. Cadets begin to use practical application throughout this course to learn/improve/refine their own personal leadership. Students will be administered the Armed Services Vocational Aptitude Battery (ASVAB) during the course.

NJROTC III

Course Number: 7918 **Grades:** 11-12

Prerequisite(s): Successful completion of NS2 curriculum with a grade of B or better. Students must be able to actively participate in physical fitness. Students must have a current VHSL physical. Students' prior aptitude and overall effort from previous course(s) in the program may result in disenrollment. **Cadets must have a current rank of "Seaman" or higher.**

Notes: Students taking NJROTC III are not allowed to enroll in NJROTC IV during the same school year without instructor approval

The purpose of this course is to broaden the understanding of students in the operative principles of military leadership, the concept and significance of teamwork, the intrinsic value of good order and discipline in the accomplishment of objectives, the understanding and appreciation of global issues and how it affects our national security. Cadets receive instruction on both sword and rifle manuals. Cadets are exposed to Medal of Honor recipients as well as in depth analysis linking those recipients actions to leadership traits that were learned as a NS II. The practical application of leadership continues during this time period. All instruction continues to tie in leadership, citizenship, physical fitness, self confidence and self discipline.

NJROTC IV

Course Number: 7919 **Grades:** 12

Prerequisite(s): This class requires an application. Applications can be provided from the instructor. Successful completion of NS3 curriculum with a grade of A. Students must be able to actively participate in physical fitness.

Students must have a current VHSL physical. Students' prior aptitude and overall effort from previous course(s) in the program may result in disenrollment at the discretion of the instructor.

The purpose of this course is focused primarily on practical leadership techniques and implementation. The intent is to assist seniors in understanding leadership and improving their leadership skills by putting them in positions of leadership, under instructor supervision. Then, cadets are provided continuous feedback helping them analyze the reasons for their varying degrees of success throughout the year. Seniors are placed in leadership positions within the NJROTC unit. They are assessed on their ability to apply theoretical and applied aspects of leadership, training, and evaluation of performance. Students will become aware of the techniques used to create motivation, develop goals and activities for a workgroup, and the proper ways to show "leadership by example". Classroom activities include classroom presentations from time to time and practical work with younger cadets continuous throughout the semester.

ENGLISH

All course offerings are dependent upon teacher availability, enrollment, space, and scheduling. Weighted English Courses – Honors, Advanced Placement, and Dual Enrollment the vast majority of colleges look favorably upon applicants who have completed a course of study including one or more advanced classes. Students must take English 9-12. Elective classes do not fulfill the annual English requirements. At King George High School, Honors English, Advanced Placement English, and Dual Enrollment English are weighted. Weighted courses are given additional quality points toward the students' grade point averages. This weight is given to avoid discouraging students from taking more challenging courses simply because they fear to endanger a grade point average. Students and their parents should realize that this advantage DOES reflect the challenge both in the course content and in the rigorous workload inherent in weighted courses. Students must take the appropriate grade-level English course each year until graduation. Juniors who have failed a course may take one class each semester to progress to grade level. Under no circumstances may students take two English courses in a single semester.

ENGLISH 9

Course Number: 1130

Grades: 9

Prerequisite(s): English 8

Note: NCAA approved course

English 9 focuses primarily on short stories, the novel, poetry, mythology, nonfiction, and drama. Compositions, both oral and written, are integrated with the study of literature, grammar, vocabulary, and mechanics. This course satisfies requirements necessary to prepare a student for a job or for higher education upon graduation.

ENGLISH 9 HONORS

Course Number: 1130H

Grades: 9

Prerequisite(s): English 8, Must pass Grade 8 Reading and Writing SOL

Note: NCAA approved course

English 9H is a rigorous and challenging course designed for highly motivated students. English 9H addresses 9th grade SOL objectives and prepares students for later Honors, AP, and Dual Enrollment courses through the study

of short stories, novels, poetry, drama, mythology, and nonfiction, while also developing research skills. In order to reach 9th-grade benchmarks, multiple written compositions are integrated with the study of literature, grammar, vocabulary, and mechanics. Students taking this course must expect demanding amounts of both reading and writing. This course lays the foundations for future English studies. A main objective of the course is to ensure that students entering the gifted/honors program master the fundamental reading comprehension processes and writing skills that will be used in subsequent courses. Most of the writing will involve interpretation and analysis of the written works studied. Frequently, works chosen for study will focus on a common theme.

ENGLISH 10

Course Number: 1140

Grades: 10

Prerequisite(s): English 9

Note: NCAA approved course

English 10 reinforces the skills taught in English 9 and is rooted in cultural and world literature.. Compositions, both oral and written, are integrated with the study of literature, grammar, vocabulary, and mechanics. This course satisfies requirements necessary to prepare a student for a job or for higher education upon graduation from high school.

ENGLISH 10 HONORS

Course Number: 1140H

Grades: 10

Prerequisite(s): English 9

Note: NCAA approved course

Honors English 10/Pre-AP English is a very challenging experience for the highly motivated student who reads avidly and commits himself to a deeper, more intensive study of literature. The course includes a Pre-AP textbook, as well as novels, memoirs, graphic novels, drama, short stories, and essays from an international and multicultural body of literature. In-depth analysis of diction, syntax, rhetorical devices, and overall author purpose and style is a daily expectation in the course. In addition, reading homework will be assigned nightly. Formal essays, research papers/projects, vocabulary, oral communication, SAT preparation, and multimodal projects are also included in this course.

ENGLISH 11

Course Number: 1150

Grades: 11

Prerequisite(s): English 10

Note: SOL/EOC Test Administered, NCAA approved course

English 11 focuses on the history and development of American culture as portrayed through its great writers. It is a course designed to help the student practice expected grammar and usage skills, improve research skills, and study various composition styles. Required writings will incorporate all aspects of this course. Vocabulary study, oral activities, and outside reading are also integral parts of the course. This course satisfies requirements necessary to prepare a student for a job or for higher education upon graduation from high school. The writing assessment is given in the first quarter of the semester and the Reading SOL is given in the second quarter of the semester.

ENGLISH 11 HONORS

Course Number: 1150H

Grades: 11

Prerequisite(s): English 10

Note: SOL/EOC Test Administered, NCAA approved course

English 11H is a rigorous and challenging course designed for highly motivated students. This course is a survey of American literature covering the span of early America to contemporary times. English 11H addresses 11th grade SOL objectives through the study of short stories, novels, poetry, drama, and nonfiction, while also developing research skills. In order to reach 11th-grade benchmarks, multiple written compositions are integrated with the study of literature, grammar, vocabulary, and mechanics. Students taking this course must expect demanding amounts of both reading and writing. Students should expect to have homework nightly. Reading is an important homework component in English courses, especially in advanced level courses. This course lays the foundations for future English and college studies. The writing assessment is given in the first quarter of the semester and the Reading SOL is given in the second quarter of the semester.

ADVANCED PLACEMENT (AP) ENGLISH 11

Course Number: 01005 **Grades:** 11

Prerequisite(s): English 10

Note: NCAA approved course

AP 11 is a rigorous and challenging course designed for highly motivated students. . It will provide preparation for both the EOC writing and reading/research SOLs, as well as the SAT and ACT standardized tests. This rigorous course will engage students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Readings will include novels, short stories, essays, speeches, and poetry. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way genre conventions and the resources of language contribute to effectiveness in writing. AP English Language and Composition course will emphasize the writing process, asking students to compose essays that proceed through several stages or drafts, with revision aided by teacher and peers. Students may take the AP exam in May. This is a college-level class and as such students and parents should expect significant work to be completed outside of class.

ENGLISH 12

Course Number: 1160

Grades: 12

Prerequisite(s): English 11

Note: NCAA approved course

English 12 introduces the students to British literature and literature of other cultures, recognizing major literary forms and their elements. Using nonfiction texts, students will analyze and synthesize information to solve problems and gain comprehension. In addition, there will be a review of the student's acquired writing and grammar skills as needed. The student will apply knowledge of word origins, derivations, and figurative language to extend vocabulary development in authentic texts. Emphasis will be placed on written and oral communication skills and SAT skills. Students will use technology and understanding of media to create, organize, and display knowledge in ways others can access, view, and use. A research paper/project will be included as

part of this course. This course satisfies the requirements necessary to prepare a student for a job or for higher education upon graduation.

ADVANCED PLACEMENT (AP) ENGLISH 12

Course Number: 01006 **Grades:** 12

Prerequisite(s): English 11

Note: NCAA approved course

Emphasizing analysis, this course is, in nature, similar to a college sophomore English class. Students will study poetry, prose, and the novel. Mature writing and analytical skills are necessary. Students need to be confident, independent thinkers. Students should expect to invest at least an hour per night on their studies. It is not necessary to have taken AP 11 to take this class. Students demonstrating proficiency on the Advanced Placement exam may earn up to 6 credits of college credit nationwide. This is a college-level class and as such students and parents should expect significant work to be completed outside of class.

DUAL ENROLLMENT ENGLISH 12

Course Number: 1196D **Grades:** 12

Prerequisite(s): English 11, Completed RCC application, passed RCC entrance criteria/exam

Note: NCAA approved course

A weighted class, students will be enrolled in both King George High School and Rappahannock Community College. Dual Enrollment English 12 covers two college courses, ENG 111 and ENG 112; English 111, College Composition I, focuses intensely on both literature and composition as students explore critical thinking and the fundamentals of academic writing. Through the writing process, students: refine topics; develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. In addition, the student will read a variety of major works in drama, novels, poetry, short story, and non-fiction writings. These selections, from several different cultures, will be used for literary analysis-- both oral and written---and for examination of ideas in order to make informed judgments or to pose additional questions. This course is worth 3 college credits and as such, requires a workload that is equivalent to that of a college level course.

English 112, College Composition II, continues to develop college writing with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. This course requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. Prerequisite: Students must successfully complete English 111 or its equivalent, and must be able to use word processing software. This course is worth 3 college credits and as such, requires a workload that is equivalent to that of a college level course. Successful completion of DE English may result in 6 college credits.

ENGLISH AS A SECOND LANGUAGE (ELL)

Course Number: 5710, 5720, 5730, 5731 **Grades:** 9-12

Prerequisite(s): None

Note: ESL classes do not count as a traditional English course. Students must also take the appropriate grade level English class.

These courses are provided for students whose first language is not English and who need extra support/assistance in the English language in order to benefit from classroom instruction in their other courses. ESL courses do not count as an English credit. 11th-grade students will be expected to take _____ and pass the English 11 End-of-Course tests in order to earn verified credits.

CREATIVE WRITING I

Course Number: 1171

Grades: 9-12

Prerequisite(s): None

Note: NCAA approved course

The course encourages student writing through exposure to various pre-writing strategies, participation in writing exercises, reader-based feedback, responses to published works of varying genres, writing in different literary formats including short story, poetry, drama, and nonfiction, etc. The course should help a student to develop standards for evaluating a piece of creative writing--whether it be his own or another's. A student who chooses this course must be prepared to write every day and for extensive lengths of time, and must be interested in improving their writing by accepting and applying constructive criticism through revision. They must also be able to work successfully independently and in small groups. This class also requires class presentations and performances.

CREATIVE WRITING II

Course Number: 11712 **Grades:** 9-12

Prerequisite(s): Creative Writing I at KGHS

Note: NCAA approved course

Creative Writing II is a continuation of the skills developed in Creative Writing I at KGHS. The course focuses on units in writing poetry, short stories, nonfiction, and drama. Receiving constructive criticism from peers is an essential part of this course. A student who chooses this elective should be focused and motivated and able to complete lengthy compositions by set deadlines. They must also be able to work successfully independently and in small groups. This class also requires class presentations and performances.

JOURNALISM I

Course Number: 1200

Grades: 9-12

Prerequisite(s): None

This course is designed for students with a serious desire to learn the fundamentals of news writing _____ and the basic techniques involved in publishing. Students registering for the class must be motivated to work hard at gathering information and should have both an interest in and an aptitude for good writing.

PHOTOJOURNALISM I

Course Number: 12150 **Grades:** 9-10

Prerequisite(s): Students must submit an application prior to registering for the class. Applications are available in School Counseling or from the Photojournalism teacher.

Note: This class works on the yearbook.

This course focuses on photography, interviewing, copywriting, and layout. Students must take this spring semester course as a prerequisite for Photojournalism II. Skills learned in Photojournalism I will be used to

produce the King's Gallery yearbook in Photojournalism II, III, and IV. Usually, Photojournalism I students produce the current yearbook's spring supplement.

PHOTOJOURNALISM II, III, IV

Course Numbers: 12160, 12170 **Grades:** 10-12

Prerequisite(s): Photojournalism I, Photojournalism II or Photojournalism III and teacher recommendation

Note: This class works on the yearbook.

This course focuses on photography, interviewing, copywriting, and layout. Second, third, and fourth-year students will create the King's Gallery yearbook. Students will be able to apply for leadership positions (Editor-in-Chief, Copy Editor, Photography Editor, Design Editor, Advertising Editor, etc.)

PUBLIC SPEAKING

Course Number: 1300 **Grades:** 9-12

Prerequisite(s): None

Note: NCAA approved course

The course will provide instruction in the various forms of public address. Students will be required to demonstrate their understanding by writing and delivering various types of public addresses. Emphasis will be placed on both the oral and physical aspects of delivery.

SCIENCE FICTION AND FANTASY LITERATURE I

Course Number: 01061 **Grades:** 9-12

Prerequisite(s): None

Note: NCAA approved course

This elective course explores the ever expanding and popularized genres of Science Fiction and Fantasy. In Sci-Fi/Fantasy 1, students explore Jungian Archetypes, The Hero Cycle, and the psychology of space travel and alien invasion. This first section is a broad introduction to what tools these genres utilize in crafting their stories and characters. Students should be prepared to work creatively and collaboratively while reading, watching, and analyzing various popular examples of works in this category. This course will continue to enforce English SOL skills taught in Language Arts studies and is highly dependent upon project and classwork.

SCIENCE FICTION AND FANTASY LITERATURE II

Course Number: 01062 **Grades:** 10-12

Prerequisite(s): Science Fiction and Fantasy Literature I

In Sci-Fi/Fantasy 2, students build upon their prior knowledge to study the roots of Fantasy through folklore and its effect on modern lore interpretations. Students then look at humor's role in science fiction and explore the possible futures of the digital world. Students should expect increased expectations for reading, analysis of media connections, and creative projects. This course will continue to enforce English SOL skills taught in Language Arts studies and will seek to deepen student skills/experience with digital storytelling.

TECHNICAL WRITING

Course Number: 01105 **Grades:** 9-12

Prerequisite(s): None

The course will prepare students to produce instructive, informational, and persuasive documents based on well-defined and achievable outcomes. Technical documents are precise, concise and organized with a focus on target and audience. Students will come to understand the nuances of document design, word choice, style, and visual aids. A student who chooses this course must be prepared to write every day, and must be interested in improving their writing by accepting and applying constructive criticism through revision. They must also be able to work successfully independently and in small groups.

FINE AND PERFORMING ARTS

Arts instruction comprises courses in music, visual arts and theater. In each content area, instruction is strongly rooted in the creation, production, and performance of the art form as well as developing student's ability to respond to, and critique, art. Through frequent active participation in the arts, students learn about the elements, principles, and performance practices of the various arts forms. A strong emphasis is placed on teaching processes and skills associated with each of the arts rather than on rote-teaching, through which students gain the confidence to become independent artists, musicians, and actors who can solve authentic and meaningful artistic problems. Due to the structure of the art courses students are not able to skip a level even if independent art classes have been taken. Students are not allowed to skip a level of Art even if outside art classes have been taken.

ART HISTORY

Course Number: 91700 **Grades:** 9-12

Prerequisite(s): None

In Art History, students will develop aesthetic concepts and vocabulary to help them describe, analyze, interpret, judge, discuss and write intelligently about visual arts. Through media such as slides, videos, art prints, and the internet, students will explore art history thereby developing a sound basis on which to form their judgments about the visual arts. The course may be enhanced through field trips and hands-on projects.

ART I: FOUNDATIONS

Course Number: 9120

Grades: 9-12

Prerequisite(s): None

Art I is a general study of the fine arts, design and art appreciation. This course includes the creation of works of art, analyzing art, studying the art of many cultures, and recognizing the relationship of art to other fields, including media and mass communication. Emphasis is on developing design and drawing skills.

ART II: INTERMEDIATE

Course Number: 9130 **Grades:** 10-12

Prerequisite(s): Art I

Art II is a continuation of the study of fine arts, design, and art application with a focus on developing increased skills in drawing, painting, sculpture, printmaking, etc.

ART II: THREE-DIMENSIONAL ART

Course Number: 9196 **Grades:** 10-12

Prerequisite(s): Art I

Students will create three-dimensional art works, study a range of created 3D sculptural works within Art History related to the course & VA State Standards. Students will explore various sculpture building materials including, but not limited to wood, wire, clay, paper, plaster and paper mache. Students will experiment with functional, non-functional, representational and abstract sculptural forms.

ART II: DRAWING/PAINTING

Course Number: 9131 **Grades:** 10-12

Prerequisite(s): Art I

Students will develop their skills in both abstract and realistic drawing techniques. A variety of art media such as pencil, pen and ink, pastel, oil pastel, charcoal, colored pencil, and mixed media will be presented. Additionally, this course is designed to introduce students to painting with acrylics, tempera, and watercolor, as well as, work with mixed media. Students will gain knowledge about the materials, techniques and tools used by painters and by drawing. Experimentation is encouraged. The work of famous artists will be examined with an emphasis on contemporary art.

ART III: ADVANCED

Course Number: 9140 **Grades:** 10-12

Prerequisite(s): Art II, a portfolio of the student's artwork reviewed by high school staff

The emphasis is on aesthetic judgment, visual problem solving, creative growth, and increased skills in a variety of media for personal expression. More time will be allowed for individual projects, the development of drawing and painting skills, and assembling a portfolio. Students will also participate in preparing artwork for public viewing.

ART IV

Course Number: 9145 **Grades:** 10-12

Prerequisite(s): Art III, a portfolio of the student's artwork reviewed by high school staff

In this course, students will show, through in & out of class practice, writing, art history & application of elements/principles of art & design concepts and informed decision making their own body of artwork.

AP STUDIO ART (DRAWING OR 2D DESIGN)

Course Number: 9149

Grades: 11-12

Prerequisite(s): Art IV

In this course, students will show, through in & out of class practice, writing, art history & application of elements/principles of art & design concepts and informed decision making their own body of artwork. This work will be developed and submitted to the College Board in May.

CRAFT DESIGN I

Course Number: 9160

Grades: 9-12

Prerequisite(s): None

This course is intended as an introductory arts and crafts course. The objectives include the elements and principles of design, art, skill-building, and creative applications. A variety of media and materials will be explored.

CRAFT DESIGN II

Course Number: 9161

Grades: 10-12

Prerequisite(s): Craft Design I

Craft Design II is geared to the highly motivated students who have taken Craft Design I and wish to further explore art and craft areas. Some of the areas to be explored include batik, ceramics, print-making, and mask making.

CONCERT BAND (GRADES 9-10)

Course Number: 9233 **Grades:** 9-10

Prerequisite(s): Incoming 9th graders must get approval from the Middle School Director. The Concert Band is the ensemble for 9th and 10th Grade students as a continuation of the Intermediate Skills introduced in Middle School Band.

The curriculum will include continued development of the Intermediate instrumental proficiency through scale studies, ensemble etudes, music theory and history, and Grade IV/V Band literature. By the end of the course, students will have met the requirements for the Intermediate Level of proficiency as set forth in the Music Standards of Learning by the Virginia Department of Education. All performances are required of all members during the school year. This class meets both semesters, sharing its time with PE, and includes the 9th Grade Health Component and 10th Grade Drivers Ed Course Requirement.

WIND ENSEMBLE

Course Number: 92330 **Grades:** 11-12

Prerequisite(s): Must have completed at least one year of Concert Band. Audition Required.

The Wind Ensemble is the premier instrumental ensemble at KGHS, and is a rigorous and challenging course designed for highly motivated students. This course is designed for wind and percussion students who have

mastered the Intermediate level of playing after completing at least one year of high school Concert Band. Based on skill level and instrumentation, some advanced 10th Graders will be invited to enroll in this class per Director's approval. The curriculum will include continued development of an advanced instrumental proficiency through: the study of scale studies, ensemble etudes, music theory and history, and Grade V/VI Band literature. By the end of the course, students will have met some or all of the requirements of the Advanced Level of proficiency as set forth in the music Standards of Learning by the Virginia Department of Education.

MUSIC THEORY

Course Number: 9225

Grades: 10-12

Prerequisite(s): None

Take your musical knowledge deeper than just performance. Learn how to read all types of music and understand how notes go together to form chords, phrases, and song forms. This course follows the Virginia Music Standards of Learning for High School Music Theory. The course integrates aspects of melody, harmony, rhythm, form, analysis, and composition. Emphasis is placed on reading and writing musical notation, developing aural skills such as listening, taking dictation, and sight-singing. This course is a prerequisite for AP Music Theory and may assist your preparation for college music courses.

AP MUSIC THEORY

Course Number: 92260 **Grades:** 10-12

Prerequisite(s): Music Theory

AP Music Theory is an introductory college-level music theory course. The AP Music Theory course corresponds to one-to-two semesters of typical, introductory college music theory coursework that covers topics such as musicianship, theory, and musical materials and procedures. Musicianship skills, including dictation and listening skills, sight-singing, and harmony, are an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. The development of aural (listening) skills is a primary objective. Performance is also part of the curriculum through the practice of sight-singing. Students learn basic concepts and terminology by listening to and performing a wide variety of music. Notational skills, speed, and fluency with basic materials are emphasized.

JAZZ ENSEMBLE

Course Number: 92500 **Grades:** 9-12

Prerequisite(s): Must be able to read sheet music at an intermediate to advanced level. Teacher recommendation

The Jazz Ensemble class is designed for instrumental students seeking to develop skills in jazz performance. The curriculum will include developing an advanced instrumental proficiency through: techniques for scale studies, jazz articulations, improvisation, and the performance of jazz standards in a variety of styles (swing, Latin, bebop, fusion) By the end of the course, students will have met the requirements of the Intermediate or Artist Level of proficiency (based on their current level of proficiency) as set forth in the Music Standards of Learning by the Virginia Department of Education. All performances are required by all members during the first and second semester.

PERCUSSION ENSEMBLE

Course Number: 92502 **Grades:** 9-12

Prerequisite(s): Must have completed at least one year of Concert Band

This class is designed to meet the unique needs of percussion students at the high school level. Emphasis is on mastering the techniques required for playing the full spectrum of percussion equipment including drums, mallet instruments, timpani, and the various hand-held “trap” instruments. Special emphasis is placed on the Percussive Arts Society list of 40 rudiments, keyboard proficiency, note and rhythm reading skills, music theory, music history, ear training and sight-reading. Students are expected to practice a minimum of 30 minutes per day. **This is a performance-based class and involves participation in concerts and other performances outside of class time.**

BRASS ENSEMBLE

Course Number: 9253 **Grades:** 9-12

Prerequisite(s): Must be enrolled in either Concert Band or Wind Ensemble, and have gone through at least one year of band at the Middle or High School level.

The Brass Ensemble is designed for intermediate to advanced brass students. Students will study and perform a wide variety of music written for brass instruments and ensembles. The curriculum will include continued development of an advanced instrument proficiency through: the study of rigorous music literature, scale studies, etudes for full ensemble, basic music theory, and music history. By the end of the course, students will have met the requirements of the Intermediate to Artist Level of Proficiency as set forth in the Music Standards of Learning by the Virginia Department of Education. All out-of-school rehearsals and performances are required of all members during the first semester.

PIANO

Course Number: 9255 **Grades:** 9-12

Prerequisite(s): None

This course is designed as a beginning piano class for students with little or no music reading skills. Students will learn musical skills such as rhythm, harmony, and melody. Students will learn how to read musical notation and will become acquainted with basic piano techniques such as playing scales and intervals, playing single-line melodies with chord accompaniment, and playing simple popular and classical songs. This class is limited to 20 students.

PIANO II

Course Number: 92550 **Grades:** 10-12

Prerequisite(s): Piano I

This course enhances level-one skills and provides further opportunities for individualized study of keyboard techniques. This class is limited to 20 students.

MUSIC PRODUCTION

Course Number: 05123 **Grades:** 9-12

Prerequisite(s): None

You will learn about electronic music making and computer music production. You will learn how to use different softwares including audacity and soundtrap. Students will create and record their own beats and backing tracks to go along with samples taken from other sources. A background in piano and ability to read music is helpful but not a requirement for this class.

WOMEN'S CHORUS

Course Number: 92850 **Grades:** 9-12

Prerequisite(s): Middle school or high school chorus class

The Intermediate Level standards are designed for students who have achieved competency in beginning vocal/choral skills. Emphasis is placed on the continuing development of vocal production techniques and ensemble participation. More advanced sight singing will be studied. Students are required to purchase or rent a costume and are required to perform outside of school hours for a grade. Required performance dates will be listed in the syllabus.

SELECT CHORUS

Course Number: 9289 **Grades:** 9-12

Prerequisite(s): Audition Required

Advanced Level male and female students will continue to acquire proficiency in ensemble singing and will begin to develop competency in individual performance. Singing with refined expressive qualities, the student will perform vocal/choral selections and sight-reading material of increased levels of difficulty. Students will demonstrate expanded abilities in performance, creativity, and analytical investigation and will gain experiential knowledge of leadership and evaluative skills in group and individual settings. Students are required to purchase or rent a costume and are required to perform outside of school hours for a grade. Required performance dates will be listed in the syllabus.

MIXED CHORUS

Course Number: 9289M **Grades:** 9-12

Prerequisite(s): None

This chorus class is designed for students experiencing their first vocal/choral class. This course introduces fundamental vocal development, traditional notation, and ensemble singing in two or more parts. This course also emphasizes the development of sight singing skills and healthy vocal practices. Students are required to purchase or rent a costume and are required to perform outside of school hours for a grade. Required performance dates will be listed in the syllabus.

VOCAL ENSEMBLE – SHOW CHOIR

Course Number: 92800 **Grades:** 9-12

Prerequisite(s): Audition Required

This course is designed for advanced female and male choral music students. The course will emphasize vocal development and musical movement (choreography). Students will study and perform a wide variety of music, with numerous performances scheduled throughout the year. Students are required to purchase or rent a

costume and are required to perform outside of school hours for a grade. Required performance dates will be listed in the syllabus.

THEATRE I

Course Number: 14100 **Grades:** 9-12

Prerequisite(s): None

This course introduces students to dramatic and theatrical expression through such areas as performance, playwriting, and adaptation. Students will work on assignments, which will help them to organize their thoughts, ideas, and responses to stimuli into modes of communicable theatrical forms. Emphasis will be placed on performance for beginners, play study, audition techniques, and play production. This course meets the requirements for a fifth English class.

ADVANCED THEATRE II

Course Number: 14200 **Grades:** 10-12

Prerequisite(s): Theatre I

This course continues and strengthens the skills developed in Theatre I. Emphasis will be placed on performance through the scene and monologue study, portfolio development, directing, and research. Students will be expected to achieve a higher level of performance ability and a broader knowledge of theatrical forms than students in the introductory course.

MODERN DANCE (ADVANCED THEATRE III)

Course Number: 14300 **Grades:** 10-12

Prerequisite(s): Theatre II

This course continues and strengthens the skills developed in Theatre I. Emphasis will be placed on performance through the scene and monologue study, portfolio development, directing, and research. Students will be expected to achieve a higher level of performance ability and a broader knowledge of theatrical forms than students in the introductory course.

ADVANCED THEATRE IV

Course Number: 14400 **Grades:** 10-12

Prerequisite(s): Modern Dance

This course continues and strengthens the skills developed in Theatre I. Emphasis will be placed on performance through the scene and monologue study, portfolio development, directing, and research. Students will be expected to achieve a higher level of performance ability and a broader knowledge of theatrical forms than students in the introductory courses.

HEALTH AND PHYSICAL EDUCATION

Health and physical education programs help students adopt healthy, active lifestyles.

HEALTH AND PHYSICAL EDUCATION 9

Course Number: 7300 **Grades:** 9

Prerequisite(s): None

The Health course is designed to help the student gain an intelligent understanding of his or her mind and body in order to maintain good health and to couple their knowledge with a desire to achieve the highest degree of physical and mental fitness. The PE course is designed to provide lifetime physical fitness activities as well as skills and strategies for team and individual sports. Only one PE course may be taken during the school year. The grade is based on 60% PE and 40% Health Education.

HEALTH, PHYSICAL EDUCATION & DRIVER EDUCATION 10

Course Number: 7405

Grades: 10

Prerequisite(s): Health and Physical Education 9

The Health course is a continuation of the knowledge introduced in Health 9. Physical Education is a continuation of the fitness activities introduced in 9th grade with emphasis placed on more advanced fitness activities and more advanced skill levels for sports. Only one PE course may be taken each year. The Driver Education course is designed to help students become competent and responsible drivers. The course covers the book component only. Behind the wheel, education is arranged separately for a fee. The grade is based on 60% Physical Education and 40% Driver's Education.

PHYSICAL EDUCATION 11

Course Number: 7510

Grades: 11

Prerequisite(s): Physical Education 10

This course is designed for athletes to enhance personal development through participation in strength and conditioning training. 3 days focused on strength training, and 2 days focused on conditioning. Emphasis is placed on developing physical efficiency and fitness, advanced physical skills and game strategies, desirable health habits, attitudes, and practices, social/emotional health.

PHYSICAL EDUCATION 12

Course Number: 7610

Grades: 12

Prerequisite(s): Physical Education 10

This course is designed for athletes to enhance personal development through participation in strength and conditioning. 3 days focused on strength training, and 2 days focused on conditioning. Emphasis is placed on developing physical efficiency and fitness, advanced physical skills and game strategies, desirable health habits, attitudes, and practices and social and emotional health.

MATHEMATICS

Mathematics includes the study of topics such as quantity (number theory), structure (algebra), space (geometry) and change (mathematical analysis). All course offerings are dependent upon teacher availability, enrollment, space and scheduling. Students may take more than one course per year. Please discuss this option with your counselor.

ALGEBRA I PART I (2 COURSE SEQUENCE)

Course Number: 3131

Grades: 9

Prerequisite(s): Student will also be registered for Algebra I Part II

Note: Algebra Part I counts as a math credit for students with an IEP only, NCAA approved course

This course includes work with addition, subtraction, multiplication, and division of real numbers; exponents and algebraic expressions; first degree equations and inequalities; graphing; and work with polynomials.

ALGEBRA I PART II

Course Number: 3132

Grades: 9

Prerequisite(s): Algebra I Part I, SOL/EOC test administered

NOTE: NCAA approved course

This course includes work with polynomials, factoring, inequalities and their graphs, systems of equations, and quadratic equations.

ALGEBRA I

Course Number: 3130

Grades: 9

Prerequisite(s): None, SOL/EOC test administered

NOTE: NCAA approved course

This course includes work with real numbers, variables, graphing, basic properties of real numbers, solving inequalities, functions, relations, systems of equations, and factoring. Transferring concrete mathematical knowledge to more abstract algebraic generalizations and introducing students to variables, algebraic expressions, equations, functions, inequalities, and their multiple representations.

GEOMETRY

Course Number: 3143

Grades: 9-12

Prerequisite(s): Algebra I, SOL/EOC Course

NOTE: NCAA approved course

This course includes work with points, lines, space, angles, proving triangles congruent, work with quadrilaterals, and work with parallels and perpendiculars. The student will be able to write proofs of simple and medium complexity as well as demonstrate theorems. The course also includes constructions and some coordinate geometry, in-depth analysis of plane, solid, and coordinate geometry as they relate to both abstract mathematical concepts as well as real-world problem situations. Topics include logic and proof, parallel lines and polygons, perimeter and area analysis, volume and surface area analysis, similarity and congruence, trigonometry, and analytic geometry. Emphasis will be placed on developing critical thinking skills as they relate to logical reasoning and argument. Students will be required to use different technological tools and manipulatives to discover and explain much of the course content.

HONORS GEOMETRY

Course Number: 3143H

Grades: 9-12

Prerequisite(s): Algebra I, SOL/EOC Course

NOTE: NCAA approved course

This advanced course, designed to prepare students for AP courses and is an enriched Geometry curriculum with greater emphasis on proofs, logical reasoning and the application of theorems. Students study two- and three-dimensional reasoning skills, coordinate and transformational geometry, and the use of geometric models to solve problems. Area and volume of regular polygons as well as special right triangles are some of the additional topics that students will learn. Mathematical communication and reasoning are emphasized throughout the course. This course is taught at an accelerated pace. Students may take the SOL Geometry test at the end of the course.

ALGEBRA, FUNCTIONS, AND DATA ANALYSIS

Course Number: 3134

Grades: 9-12

Prerequisite(s): Algebra I. Course must be taken before Algebra II.

Note: NCAA approved course

Through the investigation of mathematical models and interpretation/analysis of data from real life situations, students will strengthen the conceptual understandings of mathematics and further develop connections between algebra and statistics. The infusion of technology in the course will assist in modeling and investigating functions and data analysis.

ALGEBRA II

Course Number: 3135

Grades: 9-12

Prerequisite(s): Algebra I and Geometry, SOL/EOC test administered

NOTE: NCAA approved course

This course begins with a review of Algebra I, but on a more advanced level. It includes the algebraic topics of functions and their graphs, radicals, quadratic equations, conic, and the complex number system.

ALGEBRA II HONORS

Course Number: 3135H

Grades: 9-12

Prerequisite(s): Algebra I and Geometry, SOL/EOC test administered

Note: NCAA approved course

This course begins with a review of Algebra I, but on a more advanced level. It includes the algebraic topics of functions and their graphs, radicals, quadratic equations, conic, the complex number system, matrices, conic sections and trigonometry. Students will also produce a project for each topic.

DISCRETE MATHEMATICS

Course Number: 3154

Grades: 10-12

Prerequisite(s): Algebra II

NOTE: NCAA approved course

This course will provide students an interdisciplinary liberal arts curriculum where they will use fundamental concepts of algebra-based modeling to explore real world phenomena ranging from the social and management sciences to the physical and biological sciences.

PROBABILITY AND STATISTICS

Course Number: 3190 **Grades:** 10-12

Prerequisite(s): Algebra II

This course provides students an interdisciplinary liberal arts approach where they will use concepts of mathematics to explore the two main functions of statistics: to describe a body of data in a succinct manner and to make inferences from samples to populations. Students will study the theory of probability, statistical measurement, probability distributions, and statistical inference. Full use of the graphing calculator and available computer software will be included.

ADVANCED PLACEMENT (AP) STATISTICS

Course Number: 3192 **Grades:** 10-12

Prerequisite(s): Probability and Statistics.

Note: NCAA approved course

The purpose of this challenging Advanced Placement course in statistics is to introduce students to major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to themes in exploring data, sampling and experimentation, anticipating patterns and statistical inference.

MATHEMATICAL ANALYSIS

Course Number: 3162 **Grades:** 10-12

Prerequisite(s): Algebra II

Note: NCAA approved course

The content of Mathematical Analysis will serve as appropriate preparation for the calculus course. It is an in-depth study of functions and their characteristics. The study will include, but not be limited to, polynomial, rational, radical, exponential, logarithmic and piecewise-defined functions. A thorough treatment of trigonometry is provided through the study of trigonometric definitions, applications, graphing, and solving trigonometric equations. Graphing utilities will be used.

ADVANCED PLACEMENT (AP) PRE-CALCULUS

Course Number: 02114 **Grades:** 10-12

Prerequisite(s): Algebra II

In this course, students study a broad spectrum of function types that are foundational for careers in mathematics, physics, biology, health science, social science, and data science. Furthermore, as AP pre-calculus may be the last mathematics course of a student's secondary education, the course is structured to provide a cohort capstone experience and is not exclusively focused on preparation for future courses. During this course, students acquire and apply mathematical tools in real-world modeling situations in preparation for using these tools in college-level calculus.

CALCULUS

Course Number: 3178 **Grades:** 11-12

Prerequisite(s): Math Analysis, AP Pre-Calculus, or DE Pre Calculus.

Note: This is a weighted class, NCAA approved course

Calculus is a rigorous, challenging course designed only for highly motivated students. This course covers functions, limits, continuity, differentiation and integration of algebraic, logarithmic and trigonometric functions with applications, definite integrals, indeterminate forms, and implicit differentiation. This course will serve as an excellent foundational course for those pursuing a STEM major in college.

ADVANCED PLACEMENT (AP) CALCULUS

Course Number: 3177 **Grades:** 11-12

Prerequisite(s): Calculus

NOTE: NCAA approved course

AP Calculus is a continuation of the calculus course. The course will drive deeper into the application of functions, limits, differentiation and integration of algebraic log functions. Some applications will include particle motion, area, and volume of solids, revolved axes or lines, separable differentiation equations and slope fields, among others. This course completes the topics for the AB AP Calculus exam.

DUAL ENROLLMENT PRE-CALCULUS I AND II

Course Number: 3161 **Grades:** 12

Prerequisite(s): Algebra II Honors or Math Analysis and RCC Entrance Requirements

Note: NCAA approved course

Pre-Calculus (MTH 161-162) is a college course that is taught at the high school and will present the concepts and methods necessary for the study of calculus, including algebra, analytic geometry, and the study of algebraic, exponential, logarithmic, and trigonometric dual enrollment pre-calculus will be comparable to math analysis. Credits will transfer to all Virginia Community Colleges and most colleges/universities. Tuition will be required for this class and the fee will be based on RCC's fee.

SCIENCE

All course offerings are dependent upon teacher availability, enrollment, space and scheduling. Students are advised to take one required science course per year. They should take more than one required science course only during the two semesters prior to graduation.

BIOLOGY I

Course Number: 4310 **Grades:** 9-12

Prerequisite(s): None, SOL/EOC test

NOTE: NCAA approved course

Biology I is the ninth-grade science course and it incorporates both lab and lectures in the presentation of the following areas: ecology, anatomy, physiology, biochemistry, taxonomic relationships of plants and animals, reproduction and heredity, microbiology cellular structure and function, and general biology.

EARTH SCIENCE I

Course Number: 4210 **Grades:** 10-12

Prerequisite(s): None, SOL/EOC test administered

NOTE: NCAA approved course

Earth Science I is the recommended tenth-grade science offering and it covers the various aspects of the planet Earth including its geology, meteorology, oceanography, and related astronomy. Emphasis is placed on the involvement of the student to form an overall view of our earth as it affects the individual and mankind.

CHEMISTRY

Course Number: 4410 **Grades:** 10-12

Prerequisite(s): Biology and Algebra II or currently enrolled in Algebra II, SOL/EOC test

NOTE: NCAA approved course

This is an introductory laboratory course that surveys the major topics in inorganic chemistry, with an introduction to organic and nuclear chemistry as well as biochemistry. Designed for the college-bound student, it is a mathematically oriented course with emphasis on problem-solving and experimental techniques. Topics include atomic structure, the periodic table, chemical formulas and bonding, stoichiometry, chemical reactions, and acids and bases.

EARTH SCIENCE II: ASTRONOMY

Course Number: 4260 **Grades:** 11-12

Prerequisite(s): Earth Science I, Biology I

NOTE: NCAA approved course

Astronomy examines the forces and celestial bodies of the universe. This course is designed to provide interested students with the opportunity to participate in an **in-depth** study of the physical and mechanical universe. Students will investigate the historical development of astronomy as a science, leading to a knowledge that will enable them to understand the discoveries of the twenty-first century. This course will incorporate activities such as stargazing through telescopes, laboratory exercises, and classroom demonstrations. Students will be well versed in the terminology and techniques of the modern astronomer.

EARTH SCIENCE II: GEOLOGY

Course Number: 4240 **Grades:** 11-12

Prerequisite(s): Earth Science I, Biology I

NOTE: NCAA approved course

Geology examines the physical and historical aspects of the Earth with emphasis placed on the geological processes and features that students have encountered or may encounter in their lives. The dynamic forces (both gradual and sudden) that have shaped the Earth in the past and continue to alter the face of the planet today are studied. Students participate in laboratory activities that provide hands-on experiences in the use of the tools and techniques, with a focus on the gathering and preparation of Geologic specimens and the interpretation of data.

ANATOMY AND PHYSIOLOGY

Course Number: 4330 **Grades:** 11-12

Prerequisite(s): Biology I; Chemistry or currently enrolled in Chemistry

NOTE: NCAA approved course

Anatomy and Physiology is a course dealing largely with the anatomy, physiology, ecology, biochemistry, and biophysics of higher mammalian life. Extensive laboratory experiences in the anatomical dissection of a few animal specimens and comprehensive treating of human physiology are provided. The course is biologically oriented and particularly suited to those students who wish to enter the medical and allied science fields, biology, biochemistry, or physical education.

MARINE SCIENCE

Course Number: 46102 **Grades:** 12

Prerequisite(s): Biology I and Chemistry

The purpose of the course is to study the sciences of geology, biology, chemistry, and physics in relation to bodies of saltwater. Studies will include the geology of ocean basins, chemistry of a balanced ecosystem, the physics of wave and water motion, the biosystems that live in saltwater, marine life in its natural habitat, and possible environmental dangers to those areas.

BIOLOGY II: GENETICS

Course Number: 4350

Grades: 11-12

Prerequisite(s): Biology I

NOTE: NCAA approved course

Genetics examines the historical and theoretical aspects of this specific field of biology. General areas of study will include molecular genetics, the passage of traits from parents to offspring, and the origin and change of life-forms over time. As we accomplish this study, students will become properly equipped with the skills to deal with the ethical issues related to these topics. Emphasis is on acquiring knowledge through laboratory experiences and understanding the processes of science.

GENERAL BIOLOGY I: DUAL ENROLLMENT

Course Number: 4320D

Grades: 11-12

Prerequisite(s): Biology; Chemistry

NOTE: NCAA approved course

General Biology I (Bio 101) is a college course that is taught at the high school that focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part I of a two-course sequence. Assignments require college-level reading fluency, coherent written communication, and basic mathematical skills. This is a Passport Transfer course.

GENERAL BIOLOGY II: DUAL ENROLLMENT

Course Number: 4370D

Grades: 11-12

Prerequisite(s): General Biology I (4320D)

NOTE: NCAA approved course

General Biology I (Bio 102) is a college course that is taught at the high school that focuses on biological processes with a chemical foundation, including macromolecules, cellular structure, metabolism, and genetics in an evolutionary context. Explores the core concepts of evolution; structure and function; information flow, storage and exchange; pathways and transformations of energy and matter; and systems biology. Emphasizes the process of science, interdisciplinary approach, and relevance of biology to society. Part II of a two-course sequence.

PHYSICS

Course Number: 4510

Grades: 11-12

Prerequisite(s): Chemistry.

In this course, students will explore the physical world through qualitative, quantitative, and laboratory methods. Topics will include kinematics, vector analysis, Newton's Laws, work and energy, momentum, and circular motion. Mathematics will be the primary tool to increase understanding of motion, forces, and energy transfer. This course is recommended for students interested in pursuing a STEM career.

ADVANCED PLACEMENT (AP) PHYSICS I

Course Number: 4570

Grades: 11-12

Prerequisite(s): Students must have completed Physics and Math Analysis (concurrent or completed)

Note: This course is offered during the spring semester only, NCAA approved course

In this course, students will continue their studies of the physical world through qualitative, quantitative, and laboratory methods. Topics will include kinematics, vector analysis, Newton's Laws, work and energy, momentum, circular motion, gravitation, oscillatory motion, rotational motion, waves and electromagnetic radiation, electronics, and modern physics. This is an algebra based, introductory college level course recommended for students interested in pursuing a career in aerospace, aeronautics, engineering, physics, mathematics, astronomy, or related fields. This course will prepare students planning on completing the AP Physics 1 exam and/or pursuing a college degree in a STEM field.

ADVANCED PLACEMENT (AP) ENVIRONMENTAL SCIENCE

Course Number: 4270

Grades: 9-12

Prerequisite(s): Algebra I

Note: This course is offered during the spring semester only

The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. AP Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. Students may take the AP exam in May.

SOCIAL STUDIES

Social Studies is the integrated study of the social sciences and humanities to promote civic competence. All course offerings are dependent upon teacher availability, enrollment, space and scheduling.

WORLD HISTORY II (FROM 1500 A.D.)

Course Number: 22160 **Grades:** 9-12

Prerequisite(s): None, SOL/EOC test administered

Note: NCAA approved course

This course is designed to provide the student with an understanding of modern civilization's heritage through examination of the time period from 1500 A.D. to the present. The study of literature, science, drama, philosophy, and art will include the Renaissance, Age of Exploration, Age Imperialism, Age of Revolutions, and the Twentieth Century. In addition, students will identify the contributions of various civilizations to contemporary society as well as use basic geography skills.

HONORS WORLD HISTORY II

Course Number: 2216H **Grades:** 9

Prerequisite(s): World History I, SOL/EOC test administered

Note: NCAA approved course

Honors World History II is a rigorous course designed for highly motivated individuals. The course is designed to address the SOL objectives while preparing the students for future AP and Honors courses. This course is designed to provide the student with an understanding of modern civilization's heritage through examination of the time period from 1500 A.D. to the present. The study of literature, science, drama, philosophy, and art will include the Renaissance, Age of Exploration, Age of Imperialism, Age of Revolutions, and the Twentieth Century. In addition, students will identify the contributions of various civilizations to contemporary society as well as use basic geography skills. Emphasis will be placed on critical thinking skills, thematic writing, and interpretations of original document and historiography.

WORLD GEOGRAPHY

Course Number: 2210 **Grades:** 9-12

Prerequisite(s): None, SOL/EOC Test Administered

Note: NCAA approved course

This course studies the physical, economic, and cultural characteristics of the world's regions while emphasizing global interdependence, characteristics of industrial and developing countries, population trends, use of

resources, and human interaction with the environment.

UNITED STATES AND VIRGINIA HISTORY

Course Number: 2360

Grades: 11

Prerequisite(s): World History I, World History II, or World Geography, SOL/EOC Test Administered

Note: NCAA approved course

United States History focuses on the historical development of American ideas and institutions from the Age of Exploration to the present. While focusing on political and economic history, this class provides students with the basic knowledge of American culture through a chronological survey of major issues, movements, people, and events in the United States and Virginia history. As a foundation to develop historical thinking skills, students will apply social science skills to understand the challenges facing the development of the US.

UNITED STATES AND VIRGINIA GOVERNMENT

Course Number: 2440

Grades: 12

Prerequisite(s): United States and Virginia History

Note: NCAA approved course

The United States and Virginia Government examines the Constitution; the structure and operation of the governments; the process of policy-making, with an emphasis on economics, foreign affairs, and civil rights issues; and the impact of the general public, political parties, interest groups, and the media on policy decisions. United States political and economic systems will be compared to those of other nations, with emphasis on the relationships between economic and political freedoms.

HONORS GOVERNMENT

Course Number: 2440H

Grades: 12

Prerequisite(s): United States and Virginia History

This advanced class is designed for college-bound seniors. Students should expect an increased emphasis on individual and group projects, writing, research, and public speaking. Analysis of primary sources focus on current events, and contact with public officials will be fundamental to the course.

ADVANCED PLACEMENT (AP) UNITED STATES GOVERNMENT

Course Number: 2445

Grades: 12

Prerequisite(s): United States and Virginia History

Note: NCAA approved course

This rigorous, college-level course will give students an analytical perspective on government and politics in the U.S. This course includes both the study of general concepts used to interpret U.S. government and politics and analysis of specific examples. Students will become acquainted with a variety of theoretical perspectives and explanations for various behaviors and outcomes. Students should be able to read a college-level textbook and write grammatically correct, complete sentences. Students have the opportunity to earn college credits by taking and passing the AP US Government and Politics exam in May.

ADVANCED PLACEMENT (AP) UNITED STATES HISTORY

Course Number: 2319

Grades: 11-12

Prerequisite(s): Successful completion of World History II/Geography, Completion of US History Honors is strongly encouraged

Note: NCAA approved course

In AP U.S. History, students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change. The course also provides eight themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; work, exchange, and technology; geography and the environment; migration and settlement; politics and power; America in the world; American and regional culture; and social structures. AP U.S. History is equivalent to a two-semester introductory college course in U.S. history. Students should be able to read a college-level textbook and write grammatically correct, complete sentences. Students have the opportunity to earn college credits by taking and passing the AP US History exam administered by the College Board in May.

DUAL ENROLLMENT WORLD HISTORY

Course Number: 04063 **Grades:** 10-12

Prerequisite(s): Student must meet RCC entrance requirements, must have passed World History II

Note: NCAA approved course

This course includes two courses in one semester - HIS 111 and 112. It surveys the history of Asia, Africa, the Americas, and Europe from antiquity to the present. Students will be able to express an understanding of forces that foster global connections among places, persons, groups, and/or knowledge systems through written activities. They will also develop multiple historical literacies by analyzing sources of various kinds and using these sources as evidence to support interpretation of historical events. This is a fast-paced course that requires strong reading and writing skills.

DUAL ENROLLMENT UNITED STATES HISTORY

Course Number: 2356 **Grades:** 11-12

Prerequisite(s): Student must meet RCC entrance requirements

This course includes two courses in one semester - HIS 121 and 122. Introduces the history of the United States from its origins to the present. The first half includes the European exploration, development of the American colonies and their institutions, the Revolution, major political, social and economic developments, geographical expansion, the Civil War, and Reconstruction. The second half includes major political, social and economic developments since 1865, overseas expansion, the two world wars, the Cold War and the post-Cold War era. Students will be able to explain, analyze, and evaluate the changing social, cultural, economic, and political

structures and development of the United States through written activities and/or oral presentations/discussion. Strong reading and writing skills are essential to success.

INTERNATIONAL RELATIONS

Course Number: 2810 **Grades:** 11-12

Prerequisite(s): None

Note: NCAA approved course

An introduction to the contemporary analysis of international relations. Students will learn major theories of international relations and apply them to understand international situations and issues in the modern world. Emphases are on clearly comprehending the relationship between international conflicts and cooperation and on recognizing the shift from “nationalism” to “internationalization” to “globalization”. Included is the study of the influences of IGO, NGO, MNC’s on international political, social, and military motivations. Extensive use of internet information, articles from professional journals and newspapers will enable students to update information about imminent international issues today and to think about them critically.

SOCIOLOGY

Course Number: 2500 **Grades:** 11-12

Prerequisite(s): None

Note: NCAA approved course

This is an elective course designed for mature eleventh and twelfth-grade students. Sociology is a social science that concentrates on the way people relate to one another and influence each other’s behavior. Focusing on group behavior, students will study American social institutions including religion, family, economics, and education. Students will also examine and possibly research areas of social change including altered lifestyles, minority issues, population growth, changing moral values, the welfare system, family decisions and issues, poverty, crime, drug abuse, and adolescence. A research paper will be assigned.

PSYCHOLOGY

Course Number: 2900 **Grades:** 10-12

Prerequisite(s): None

Note: NCAA approved course

This is a survey course meant to introduce high school students to basic psychological concepts and to prepare them to do well in college-level psychology courses. The course will center around the study of human behavior. It will seek to help the students understand themselves and others more fully. Early in the course, the history, important contributions, and theories of psychology will be explored. Other aspects, such as personality development, adolescent psychology, and abnormal psychology, will also be studied.

DUAL ENROLLMENT PSYCHOLOGY

Course Number: 2900DE **Grades:** 10-12

Prerequisite(s): Student must meet RCC entrance requirements

Covers the scientific study of behavior and mental processes, research methods, biological bases of behavior, sensation and perception, developmental psychology, learning, memory, thinking, intelligence, personality, social

psychology, and psychological disorders and treatment. The assignments in the course require college-level reading fluency and coherent communication through written reports. This is a Passport and UCGS transfer course. VCCS course equivalent is PSY 200 - Principles of Psychology (3 Credits).

ADVANCED PLACEMENT (AP) PSYCHOLOGY

Course Number: 2902 **Grades:**10-12

Prerequisite(s): Recommended - Successful completion of Biology or taking it concurrently with AP Psychology

Note: NCAA approved course

"The AP Psychology course introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatments of psychological disorders, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence, and effectively communicate ideas. The AP Psychology course is designed to be the equivalent of the Introduction to Psychology course usually taken during the first college year. Students should be able to read a college-level textbook and write grammatically correct, complete sentences. Students have the opportunity to earn college credits by taking and passing the AP Psychology exam administered by the College Board in May.

MILITARY HISTORY

Course Number: 29960 **Grades:** 10-12

Prerequisite(s): World History I and/or World History II

Note: NCAA approved course

This course examines the development of military strategies and hardware throughout the world from ancient times to the present. Students will analyze and interpret battles, wars and armed conflicts which have influenced world history. Emphasis will be placed on students learning to assess and analyze historical materials. There will be a substantial evaluation based on the mastery of deciding variables associated with armed conflict including leadership, geography, strategy and tactics, and technology.

AP EUROPEAN HISTORY

Course Number: 2399 **Grades:** 10-12

Prerequisite(s): None

Note: NCAA approved course

Tracing the narrative of European history from 1450 to the present, students will study the intellectual, cultural, political, diplomatic, social, and economic history of each era. Analysis and interpretation of primary sources, maps, works of arts and political cartoons will be central to this course. Strong reading and writing skills are essential to success. Students should be able to read a college-level textbook and write grammatically correct, complete sentences. Students have the opportunity to earn college credits by taking and passing the AP exam in May.

AP HUMAN GEOGRAPHY

Course Number: 2212 **Grades:** 9-12

Prerequisite(s): Recommended - Successful completion of World History II or World Geography

Note: NCAA approved course

The AP Human Geography course is equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine the socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. Students should be able to read a college-level textbook and write grammatically correct, complete sentences. Students have the opportunity to earn college credits by taking and passing the AP exam in May.

AFRICAN AMERICAN HISTORY

Course Number: 2372

Grades: 10-12

Prerequisite(s): None

This course provides students with a broad overview of the African American experience and explores ancient Africa, their role in building America, and moving through modern times. In addition, the course will highlight the social, cultural, and political contributions of African Americans to American society.

WORLD LANGUAGE

The study of world languages builds communication skills, provides exposure to the richness of cultural variety; broadens career opportunities, enriches global travel and prepares students for postsecondary education. Students are advised to take one level of a foreign language per year except for levels four and five. It is recommended that level four and AP Language be taken in the same year.

FRENCH I

Course Number: 5110 **Grades:** 9-12

Prerequisite(s): None

NOTE: NCAA approved course

The student begins to develop the elementary skills of listening, speaking, reading, and writing. The course also examines the cultural and geographical aspects of the French-speaking countries. A major focus of this class is frequent and accurate oral participation and group or pair interaction. Students will be taught how to take responsibility for learning a foreign language.

FRENCH II

Course Number: 5120

Grades: 9-12

Prerequisite(s): French I

NOTE: NCAA approved course

The student continues to develop the elementary skills of listening, speaking, reading, and writing. The course continues the examination of the French-speaking countries. A major focus of this class is frequent and accurate oral participation and group or pair interaction. There is a heavy emphasis on the culture of French-speaking areas.

FRENCH III

Course Number: 5130 **Grades:** 9-12

Prerequisite(s): French II

NOTE: NCAA approved course

This course advances the study of the basic grammar, vocabulary, and cultural items necessary for future study or travel. Reading and creative use of writing and speaking for personal expression are increasingly emphasized. A major focus of this class is frequent and accurate oral participation and group or pair interaction.

ADVANCED FRENCH IV

Course Number: 5140 **Grades:** 10-12

Prerequisite(s): French III

NOTE: NCAA approved course

In this advanced level course, students are expected to have already demonstrated mastery of the grammar, vocabulary, and cultural knowledge necessary for a basic level of proficiency in the language and to integrate this knowledge in more advanced levels of speaking, reading, and writing. Primary emphasis is on self-expression and creative use of the language. This course is designed for the more advanced fourth-year student who wants the challenge of working more independently and creatively. Because this course is equivalent to an intermediate level college course, this is a weighted credit course and the student is expected to perform at that level.

ADVANCED PLACEMENT (AP) FRENCH V

Course Number: 5150 **Grades:** 10-12

Prerequisite(s): French IV

NOTE: NCAA approved course

This advanced level course will prepare students to take the AP French exam. This course will focus on higher level oral and written communication. Students will perfect their French skills as they read authentic materials, write papers, do research projects and study French cinema and music. Because this course is equivalent to an intermediate level college course, this is a weighted credit class and the student is expected to perform at that level.

SPANISH I

Course Number: 5510 **Grades:** 9-12

Prerequisite(s): None

NOTE: NCAA approved course

In this course, students will begin to develop language skills through interpersonal and interpretive communication on topics related to them and their community, with an emphasis on understanding and responding to spoken language. Throughout the course, we will focus on comprehensible input (listening to spoken language and readings that students can understand) in order to facilitate the natural acquisition of the language.

SPANISH II

Course Number: 5520 **Grades:** 9-12

Prerequisite(s): Spanish I

NOTE: NCAA approved course

In this course, students will continue to develop language skills through interpersonal and interpretive communication on student-centered topics and Hispanic culture, with emphasis on understanding and responding to spoken and written language. Throughout the course, we will focus on comprehensible input (listening to spoken language and reading that students can understand) in order to facilitate natural acquisition of the language. We will spend most of our time (the goal is 90%) in class using Spanish.

SPANISH III

Course Number: 5530 **Grades:** 9-12

Prerequisite(s): Spanish II

NOTE: NCAA approved course

In this course, students will build upon and continue to develop language skills through interpersonal and interpretive communication on student-centered topics and Hispanic culture, with emphasis on understanding and responding to spoken and written language. Throughout the course, we will focus on comprehensible input (listening to spoken language and reading that students can understand) in order to facilitate natural acquisition of the language. We will spend most of our time (the goal is 90%) in class using Spanish.

ADVANCED SPANISH IV

Course Number: 5540 **Grades:** 10-12

Prerequisite(s): Spanish III

NOTE: NCAA approved course

In this course, students will continue to strengthen language skills through interpersonal and interpretive communication on cultural and student-centered topics, with emphasis on understanding and responding to spoken and written language. Throughout the course, we will focus on using Spanish in class (90% is the goal) in order to facilitate natural acquisition of the language. We will start to incorporate the 6 AP themes into our units in order to prepare those moving on to AP. Culture and authentic resources will be integrated.

ADVANCED PLACEMENT (AP) SPANISH V

Course Number: 5550 **Grades:** 10-12

Prerequisite(s): Spanish IV

NOTE: NCAA approved course

The objective of this course is to show proficiency in each of the three modes of communication (Interpersonal, Interpretive, and Presentational) in preparation for the Advanced Placement Spanish Language and Culture Exam. The AP® Spanish Language and Culture course is equivalent to an intermediate college-level course. It is designed for motivated high school students in their fifth semester of Spanish language study. Students should have a good command of grammar and considerable competence in listening, reading, speaking and writing.

Students will be expected to communicate in the target language in class as they compare and contrast Hispanic cultures with their personal communities and connect their studies with other disciplines. Students should anticipate significantly increasing the amount of Spanish they use to express themselves as the course progresses. Students should also actively seek out practice outside of class to strengthen their skills. Students have the opportunity to earn college credits by taking and passing the AP exam administered by the College Board in May.

STATEMENT OF NON-DISCRIMINATION

King George County Public Schools does not discriminate on the basis of race, color, ethnicity, age, religion, national origin, sexual orientation, gender identity, sex, marital status, or disability. All students have equal access to the courses and programs contained within.

The following person(s) has been designated to handle inquiries regarding the non-discrimination policies:

Elizabeth Yeziarski, Supervisor of Human Resources
eyeziarski@kgcs.k12.va.us
PO Box 1239
King George, VA 22485