



Dear Students and Parents:

It is with great pride that I present you with the 2011-2012 edition of the Rockbridge County High School *Program of Studies*. Research indicates that a student's high school course of study is the best predictor of college success. It is vital that students choose demanding and diverse coursework. Throughout the following pages you will find a wide array of opportunities to meet the post-secondary goals of every student. I hope that each of you will read this booklet carefully and choose classes that will contribute to your student's future success.

It is also important that you pay careful attention to the outlined graduation and SOL requirements. The State has mandated many changes over the last few years. As always, our guidance counselors, teachers, and administrators are here to guide you and answer any questions that you might ask.

While graduation requirements are certainly a necessary part of this document, keep in mind that they are minimum requirements. It is important that students take full advantage of the course offerings at RCHS to prepare them for the demanding future that awaits them. Universities, colleges, and employers are seeking students who are lifelong learners. Every student needs to build the strongest academic foundation possible, which includes four years of English, math, science, and social studies. Students should also vigorously pursue the elective opportunities available to them, especially those in our Career and Technical Education programs.

Please be alert to information you will be receiving outlining our registration process. We feel that choosing a course of study is one of the most important decisions made at the high school level. We will be asking parents to join us in this process to ensure your child is on the path to success. However, we all know that choosing a class is merely the first step in a successful experience. Students should always give their best effort in class to benefit from as many opportunities as possible. Once again, please ask your guidance counselor, teachers, or administrators if you have any questions. We are all here to help you.

Sincerely,

Jennifer Weaver
Principal

Program of Studies At-A-Glance

Topic	Description
Graduation Requirements	There are six available diploma types. Each student will select one and must fulfill the assigned requirements. For more information, see this section on pages 4 - 6.
Academic Course Options	All students must choose a course in the four academic areas (English, Mathematics, Social Studies & Science) in each of their four years at RCHS. For a list of available academic courses, see this section on page 7.
Elective Course Options	All students must select elective courses to fulfill their graduation requirement. These course selections should also correspond with their pathway option. To see a complete list of options refer to page 8.
Fine Arts or Career & Technical Education Requirements	Students who entered RCHS before 2010 should refer to page 7 to select one course from the list of options to satisfy graduation requirements.
Program Pathways	9th Grade students may choose two program pathways to explore. 10th through 12th grade students should select one program to follow through its completion. For a complete list of pathways and their individual requirements, see pages 9 - 11.
Career Pathways Reference Guide	Students should use this as a reference to determine a program of interest based on a career of interest. This reference can be found on page 12.
Course Descriptions	Students should refer to this section to learn more about course offerings, including prerequisites, requirements and general information provided by instructors. Course descriptions are found by department on pages 13-41.
Policies & Procedures Quick Reference	Students should refer to this section for general guidelines on school policies and procedures. For more information on any of the topics discussed, or those not mentioned, students should see their school counselor. The policies and procedures are located on pages 42 - 47.
RCHS Academic & Career Plan Template	On page 3 students can locate an educational planner that can be filled out to organize their Academic & Career Plan.

Using the Program of Studies to make an academic plan

Refer to Core Academic Course Options (p. 7)

Select one English, Mathematics, Science & Social Studies each year

Take both years of Physical Education (for summer school information, refer to page 44)

Refer to the Foreign Language offerings and make a selection each year.

Especially important if you are planning to continue your education beyond high school.

Refer to Program Pathways (pgs. 9 - 11)

Select two program pathways to explore as a freshman

Narrow pathways down to your preferred path(s) as a sophomore

Having difficulty selecting a pathway, see Career Reference Guide on page 12

Refer to the Core Academic Course Options or Elective Course Options lists (pgs. 7 & 8) to complete your schedule

Note: All selections should be made carefully to meet your graduation requirements and your post-secondary plans.

Rockbridge County High School Academic & Career Plan

Each RCHS student has an educational planner on file with his/her school counselor. Freshmen begin mapping out their high school and future plans with this document when they talk to their counselor and mentor during the registration process as goals change and new interests develop. Students are encouraged to work on this with their parents. Keep in mind graduation requirements, interests, abilities, and future plans.

	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Subject	Courses	Courses	Courses	Courses	Courses
English					
Math					
Science					
Social Studies					
Physical Education/Health					
Sequential Electives - 2					
Elective					
Elective					
Elective					
Elective					
Credits earned					
Diploma Type		S, ST, AS,AT, MS, IEP	S, ST, AS,AT, MS, IEP	S, ST, AS,AT, MS, IEP	S, ST, AS,AT, MS, IEP
Program Pathway		1. 2.			
Post-Secondary Goal					
Career Interest					

SOLs passed: World Geography, World History I, World History II, U.S. History, Earth Science, Biology, Chemistry, Algebra I, Algebra II, Geometry, Reading/Literature/Research, Writing

S= Standard diploma | ST= Standard Technical diploma | AS = Advanced Studies diploma | AT= Advanced Technical diploma
MS = Modified Standard diploma | IEP = Individualized Education Plan

Graduation Requirements

Advanced Studies Diploma Requirements

Subject	1: Standard Credit	2: Standard Credit	Verified Credit	Option 1 : Entering as Freshman prior to 2010-2011 Option 2: Entering as a Freshman in 2010-2011 or after
English	4	4	2	<p>English: SOL tests given in English 11 Writing and English 11 Reading/Literature and Research.</p> <p>Mathematics: Must include courses at or above the level of Algebra I and include at least 3 different courses from among Algebra I, Geometry, Algebra II, or others above Algebra II. SOL tests are given in Algebra I, Geometry, and Algebra II.</p> <p>Science: Must include at least 3 courses from the 4 required courses: Earth Science, Biology, Chemistry, and Physics. Other courses selected from AP Biology, Human Anatomy & Physiology, AP Chemistry, Geology, Advanced Survey of Biology Topics, and AP Physics. SOL tests are given in Earth Science, Biology, and Chemistry.</p> <p>Social Studies: Must include VA and U.S. History, VA and U.S. Government and two more from among World Geography, World History/Geography I, or World History/Geography II. SOL tests are given in all social studies courses except VA and U.S. Government.</p> <p>Foreign Language: Three years of one language or two years of two languages.</p>
Mathematics	4	4	2	
Laboratory Science	4	4	2	
Social Studies	4	4	2	
Health / Dr Ed / PE	2	2		
Fine Arts or CTE	1	1		
Foreign Language	3 or 4	3 or 4		
Economics and Personal Finance		1		
Electives	2 or 1	3 or 2		
Student Selected Test			1	
Total	24	26	9	

Advanced Technical Diploma Requirements

Subject	1: Standard Credit	2: Standard Credit	Verified Credit	Option 1 : Entering as Freshman prior to 2010-2011 Option 2: Entering as a Freshman in 2010-2011 or after
English		4	2	<p>English: SOL tests given in English 11 Writing and English 11 Reading/Literature and Research.</p> <p>Mathematics: Must include at least 3 different courses from among Algebra I, Geometry, Algebra II, or others above Algebra II. SOL tests are given in Algebra I, Geometry, and Algebra II.</p> <p>Science: Must include at least 3 courses from the 4 required courses: Earth Science, Biology, Chemistry, and Physics. Other courses selected from AP Biology, Human Anatomy & Physiology, AP Chemistry, Geology, Advanced Survey of Biology Topics, and AP Physics. SOL tests are given in Earth Science, Biology, and Chemistry.</p> <p>Social Studies: Must include VA and U.S. History, VA and U.S. Government and two more from among World Geography, World History/Geography I, or World History/Geography II. SOL tests are given in all social studies courses except VA and U.S. Government.</p> <p>Foreign Language: Three years of one language or two years of two languages.</p> <p>Career & Technical: Must satisfy requirements to be a program completer. Industry certification must be completed if offered.</p>
Mathematics		4	2	
Laboratory Science		4	2	
Social Studies		4	2	
Health / Dr Ed / PE		2		
Fine Art or CTE		1		
Foreign Language		3 or 4		
Economics and Personal Finance		1		
Career & Technical		3		
Student Selected Test			1	
Total		26	9	

Standard Diploma Requirements

Subject	1: Standard Credit	2: Standard Credit	Verified Credit	Option 1: Entering as Freshman prior to 2010-2011 Option 2: Entering as a Freshman in 2010-2011 or after
English	4	4	2	<p>English: SOL tests given in English 11 Writing and English 11 Reading/Literature and Research.</p> <p>Mathematics: Must include courses at or above the level of Algebra I and include at least 3 different courses from among Algebra I; Geometry; Algebra Functions and Data Analysis; Algebra II; or others above Algebra and Geometry. SOL tests are given in Algebra I, Geometry, and Algebra II.</p> <p>Science: Must include 3 courses from among Earth Science, Biology, Chemistry, and Physics. SOL tests are given in Earth Science, Biology, and Chemistry.</p> <p>Social Studies: Must include VA and U.S. History, VA and U.S. Government and one more from among World Geography, World History/Geography I, or World History/Geography II. SOL tests are given in all social studies courses except VA and U.S. Government.</p> <p>Electives: Two electives must be sequential.</p> <p>Fine Arts, CTE or Foreign Language: One of these credits must be in Fine Arts or CTE.</p>
Mathematics	3	3	1	
Laboratory Science	3	3	1	
Social Studies	3	3	1	
Fine Arts, CTE or Foreign Language	1	2		
Economics and Personal Finance		1		
Health / Dr Ed / PE	2	2		
Electives	6	4		
Student Selected Test			1	
Total	22	22	6	

Standard Technical Diploma Requirements

Subject	1: Standard Credit	2: Standard Credit	Verified Credit	Option 1: Entering as Freshman prior to 2010-2011 Option 2: Entering as a Freshman in 2010-2011 or after
English		4	2	<p>English: SOL tests given in English 11 Writing and English 11 Reading/Literature and Research.</p> <p>Mathematics: Must include at least 2 different courses from among Algebra I; Geometry; Algebra Functions and Data Analysis; Algebra II; or others above Algebra and Geometry. SOL tests are given in Algebra I, Geometry, and Algebra II.</p> <p>Science: Must include 3 courses from among Earth Science, Biology, Chemistry, and Physics. SOL tests are given in Earth Science, Biology, and Chemistry.</p> <p>Social Studies: Must include VA and U.S. History, VA and U.S. Government and one more from among World Geography, World History/Geography I, or World History/Geography II. SOL tests are given in all social studies courses except VA and U.S. Government.</p> <p>Career & Technical: Must satisfy requirements to be a program completer. Industry certification must be completed if offered.</p>
Mathematics		3	1	
Laboratory Science		3	1	
Social Studies		3	1	
Health / Dr Ed / PE		2		
Career & Technical		4		
Fine Arts or Foreign Language		1		
Economics and Personal Finance		1		
Electives		1		
Student Selected Test			1	
Total		22	6	

Modified Standard Diploma Requirements

Subject	Standard Credit	
English	4	This diploma is for certain students with disabilities who do not meet the requirements for a Standard Diploma. Participation in the Modified Standard Diploma option is determined by the student, his/her parents, and the I.E.P. team. To receive this diploma, students must pass the 8 th grade Math SOL test and 8 th grade Reading/Literature/Research SOL test. These students are not ranked.
Mathematics	3	
Science	2	
Social Studies	2	
Health / Dr Ed / PE	2	Mathematics: Must include courses from Algebra I, Geometry, and Personal Finance & Economics.
Fine Arts or CTE	1	Science: Must include at least 2 courses from the following courses: Earth Science, Biology, Chemistry, and Physics.
Electives	6	Social Studies: Must include VA & US History and VA & US Government Electives: Two of the six electives must be sequential
Total	20	

IEP Diploma

Requirements for the I.E.P. Diploma are outlined in the special education students' Individualized Education Plan.

These students are not ranked.

To see the full text of the Standards of Accreditation, visit www.doe.virginia.gov/VDOE/Accountability/soa.html

Core Academic Course Options

Departments	9th	10th	11th	12th
English	English 9 Foundations English 9	English 10 Foundations English 10 English 10 Pre AP	English 11 Foundations English 11 English 11 Pre AP	English 12 Foundations English 12 English 12 AP
Mathematics	Algebra I	Geometry SOL Geometry	Algebra Functions Algebra II	Algebra II Pre Calculus Statistics AP
	Algebra I H	Geometry H	Algebra II H	Pre Calculus Statistics AP
	Geometry	Algebra II	Pre Calculus Statistics	Intro to Calculus Statistics
	Geometry H	Algebra II H	Pre Calculus H Statistics	Calculus AP Statistics AP
Science	Earth Science	Biology Biology H Chemistry Chemistry H Physics	Biology II: Human Anatomy & Physiology H Biology II: Advanced Survey in Biology Topics Biology AP Chemistry Chemistry H Chemistry AP Physics Earth Science II: Survey in Earth Science Topics Geology	Biology II: Human Anatomy & Physiology H Biology II: Advanced Survey in Biology Topics Biology AP Chemistry Chemistry AP Physics Physics AP Earth Science II: Survey in Earth Science Topics Geology
Social Studies	World Affairs	World History II	VA/US History Foundations VA/US History VA/US History AP World History AP	VA/US Government VA/US Government AP World History AP
Physical Education	Phys Ed/Health 9	Phys Ed/Health/Dr Ed 10		
Economics and Personal Finance			Economics & Personal Finance Economics & Personal Finance Honors	Economics & Personal Finance Economics & Personal Finance Honors

Fine Art or Career & Technical Education Requirements

(Applies to Freshman entering prior to 2010)

Accounting	Creative Writing (.5)	HVAC	Nutrition & Wellness (.5)
Adv. Accounting	Culinary Technology	Individual Development (.5)	Office Administration
Agriculture	Dec. & Functional Art	Intro to Auto Body (.5)	Parenting (.5)
Art	Design, Multimedia, and Web Technologies	Intro to Auto Technology (.5)	Percussion Ensemble
Auto Body Repair	Drafting	Intro to Building Trades (.5)	Photojournalism
Auto Technology	Electronics	Intro to Drafting & Technology	Robotics
Building Trades	Equine Science	Jazz Band	Small Animal Care
Business Management	Expository Writing (.5)	Journalism	Symphonic Band
Ceramics	Family Relations (.5)	Keyboarding Secondary (.5)	Theatre
Chorus	Health Assistant	Leadership Development (.5)	Wind Ensemble
Computer Applications (.5)		Life Planning	Word Processing
Computer Info. Systems			

Elective Course Options

Departments	9th	10th	11th	12th
Agriculture Education	Agriculture I Equine Sciences Small Animal Care I	Agriculture I, II Equine Sciences Small Animal Care I, II	Agriculture II, III Equine Sciences Small Animal Care I, II Veterinary Science	Agriculture III Equine Sciences Small Animal Care II Veterinary Science
Auto Technology	Intro to Auto Tech	Intro to Auto Tech	Auto Technology I	Auto Technology II
Auto Body Repair	Intro to Auto Body	Intro to Auto Body	Auto Body Repair I	Auto Body Repair II
Building Trades	Intro to Build. Trades	Intro to Build. Trades	Building Trades I	Building Trades II
Business	Keyboarding Sec. Computer Applications Principles of Business & Marketing Computer Information Systems	Keyboarding Sec. Computer Applications Computer Information Systems Office Administration Accounting Principles of Business & Marketing Design, Multimedia & Web Technologies	Computer Information Systems Office Administration Word Processing Accounting Design, Multimedia, & Web Technologies	Office Administration Word Processing Accounting Design, Multimedia, & Web Technologies
English		Journalism I Creative Writing Expository Writing	Journalism I, II Creative Writing Expository Writing	Journalism II, III Creative Writing Expository Writing
Family & Consumer Science	Intro to Culinary Tech Individual Development Leadership Development	Intro to Culinary Tech Individual Dev. Leadership Dev. Nutrition & Wellness Family Relations Parenting	Culinary Technology I Nutrition & Wellness Family Relations Parenting Life Planning Leadership Dev.	Culinary Technology II Nutrition & Wellness Family Relations Parenting Life Planning Leadership Dev.
Fine Arts	Art I Theatre Arts Explor. Marching Band Symphonic Band Percussion Ensemble Chorus Jazz Band	Art I, II Dec. & Func. Art Ceramics Theatre Arts Explor. Adv. Theatre Arts Marching Band Percussion Ensemble Chorus Wind Ensemble Jazz Band Photojournalism I	Art II, III Dec. & Func. Art Ceramics Adv. Theatre Arts Theatre Production Marching Band Percussion Ensemble Chorus Wind Ensemble Jazz Band Photojournalism I, II	Art III, IV Dec. & Func. Art Ceramics Adv. Theatre Arts Theatrical Production Marching Band Percussion Ensemble Chorus Wind Ensemble Jazz Band Photojournalism II, III
Foreign Language	French I, II, III Latin I, II, III Spanish I, II, III	French I, II, III, IV H Latin I, II, III, IV H/AP Spanish I, II, III, IV H	French I, II, III, IV H, V H Latin I, II, III, IV/V H/AP Spanish I, II, III, IV H, V AP	French II, III, IV H, V H Latin II, III, IV/V/VI H/AP Span. II, III, IV H, VAP
Health Occupations	Intro to Health Assistant	Intro to Health Assistant	Health Assistant I	Health Assistant II
Heating, Ventilation & Air Conditioning			HVAC I/II	HVAC I/II, III
Physical Education		Strength Training	Strength Training	Strength Training
Social Studies			World History AP	World History AP
Technology	Intro to Drafting & Technology Electronics Technology I	Intro to Drafting & Technology Drafting I Electronic Technology I, II	Drafting II: Architectural Drafting II: Mechanical Electronic Technology II, III	Drafting II: Architectural Drafting II: Mechanical Drafting III Electronic Technology III Robotics

RCHS PROGRAM PATHWAYS

Social Science & Language Arts Programs

Subjects	9th	10th	11th	12th
English *AP Track Preferred	English 9	English 10 English 10 Pre AP Journalism I Creative Writing Expository Writing	English 11 English 11 Pre AP Journalism I, II Creative Writing Expository Writing	English 12 English 12 AP Journalism II, III Creative Writing Expository Writing
Social Studies *H/AP Track Preferred	World Affairs	World History II	VA/US History VA/US History AP Economics & Personal Finance Economics & Personal Finance Honors World History AP	VA/US Government VA/US Government AP Economics & Personal Finance Economics & Personal Finance Honors World History AP
Foreign Language	French I, II, III Latin I, II, III Spanish I, II, III	French I, II, III, IV H Latin I, II, III, IV AP Spanish I, II, III	French I, II, III, IV H, V H Latin I, II, III, IV AP, V AP Spanish I, II, III, IV H, V AP	French II, III, IV H, V H Latin II, III, IV AP, V AP, VI AP Spanish II, III, IV H, V AP

Mathematics & Science Programs

Subjects	9th	10th	11th	12th
Mathematics *H/AP Track Preferred	Algebra I or Algebra I H Geometry or Geometry H	Geometry or Geometry H Algebra II or Algebra II H	Algebra II or Algebra II H Pre-Calculus Pre-Calculus H Statistics AP	Pre-Calculus Pre-Calculus H Intro. To Calculus Calculus AP Statistics AP
Science *H/AP Track Preferred	Earth Science	Biology Biology H Chemistry Chemistry H Physics	Chemistry Chemistry H Chemistry AP Human Anatomy & Physiology H Biology AP Geology Physics Advanced Survey of Biology Topics Survey in Earth Science Topics	Physics Physics AP Biology AP Chemistry AP Human Anatomy & Physiology H Geology Advanced Survey of Biology Topics Survey in Earth Science Topics
Foreign Language	French I, II, III Latin I, II, III Spanish I, II, III	French I, II, III, IV H Latin I, II, III, IV AP Spanish I, II, III	French I, II, III, IV H, V H Latin I, II, III, IV AP, V AP Spanish I, II, III, IV H, V AP	French II, III, IV H, V H Latin II, III, IV AP, V AP, VI AP Spanish II, III, IV H, V AP

Fine Arts Programs

9th	10th	11th	12th
Art I	Art I, II	Art II, III	Art III, IV
Theatre Arts Exploration	Decorative & Functional Art	Decorative & Functional Art	Decorative & Functional Art
Marching Band	Ceramics	Ceramics	Ceramics
Symphonic Band	Theatre Arts Exploration	Advanced Theatre Arts	Advanced Theatre Arts
Percussion Ensemble	Advanced Theatre Arts	Theatrical Production	Theatrical Production
Chorus	Marching Band	Marching Band	Marching Band
Jazz Band	Percussion Ensemble	Percussion Ensemble	Percussion Ensemble
	Wind Ensemble	Wind Ensemble	Wind Ensemble
	Jazz Band	Jazz Band	Jazz Band
	Chorus	Chorus	Chorus
	Photojournalism I	Photojournalism I, II	Photojournalism II, III

Trade & Industrial Programs

Program	9th	10th	11th	12th
Auto Body Repair	Introduction to Auto Body Repair	Introduction to Auto Body Repair	Auto Body Repair I	Auto Body Repair II
Automotive Technology	Introduction to Automotive Technology	Introduction to Automotive Technology	Automotive Technology I	Automotive Technology II
Building Trades	Introduction to Building Trades	Introduction to Building Trades	Building Trades I	Building Trades II
<i>* Introduction courses are to be taken one time during either the 9th or 10th grade.</i>				
Heating, Ventilation & Air Conditioning			HVAC I	HVAC II
<i>Completer Sequence: Students must complete an Introduction Level Class, a Level I Class, and a Level II Class</i>				

Family & Consumer Science and Health Assistant Programs

9th	10th	11th	12th	
Individual Development	Individual Development	Life Planning	Life Planning	
Leadership Development	Leadership Development	Leadership Development	Leadership Development	
Intro to Culinary Technology	Family Relations	Family Relations	Family Relations	
Intro to Health Assistant	Nutrition & Wellness	Nutrition & Wellness	Nutrition & Wellness	
	Parenting	Parenting	Parenting	
	Intro to Culinary Technology	Culinary Technology I	Culinary Technology II	
	Intro to Health Assistant	Health Assistant I	Health Assistant II	
<i>Completer Sequences:</i>				
Family Focus: Two years of Family and Consumer Science OR Four semester courses of Family and Consumer Science				
Work Focus: Culinary Technology I; Culinary Technology II				
Health Assistant: Intro to Health Assistant, Health Assistant I & Health Assistant II				

Agriculture Education

9th	10th	11th	12th
Agriculture I Equine Science Small Animal Care I	Agriculture I or II Equine Science Small Animal Care I, II	Agriculture II or III Equine Science Small Animal Care I, II Veterinary Science	Agriculture III Equine Science Small Animal Care II Veterinary Science
<p><i>Completer Sequences:</i> Agriculture: Completion of Ag I, Ag II & Ag III Small Animal: Completion of Small Animal I, II</p>			

Technology Programs

9th	10th	11th	12th
Intro to Drafting and Technology Electronics I*	Intro to Drafting and Technology Drafting I Electronics Technology I*, II	Electronics Technology II, III Drafting II: Architecture Drafting II: Mechanical	Drafting II: Architecture Drafting II: Mechanical Electronics Technology III Drafting III Robotics
<p><i>Completer Sequences:</i> Two Years of Drafting Three Years of Electronics</p>			

*Algebra I and Introduction to Drafting and Technology is a prerequisite for Electronics I

**Introduction to Drafting and Technology is a prerequisite for Drafting I

Business Program

9th	10th	11th	12th
Keyboarding Secondary Computer Applications Principles of Business & Marketing Computer Information Systems	Keyboarding Secondary Computer Applications Computer Information Systems Office Administration Accounting Principles of Business & Marketing Design, Multimedia, & Web Technologies	Computer Information Systems Office Administration Word Processing Accounting Design, Multimedia, & Web Technologies	Computer Information Systems Office Administration Word Processing Accounting Design, Multimedia, & Web Technologies
<p><i>Completer Sequence:</i> 2 credits of sequenced courses</p>			

CAREER PATHWAYS REFERENCE GUIDE

English & Social Studies	Post-Secondary Majors	Advertising, Journalism, Special Education, Early Childhood Education, Public Relations, Real Estate, Languages, Library Science, Human Resources, Social Work
	Sample Occupations	Journalist, Special Education Teacher, Historian, Librarian, Realtor, Legislator
Math & Science	Post-Secondary Majors	Accounting, Architecture, Nursing, Biology, Chemistry, Engineering, Math Education, Computer Science, Insurance & Risk Management
	Sample Occupations	Accountant, Engineer, Architect, Nurse, Math Teacher, Doctor, Programmer
Fine Arts	Post-Secondary Majors	Art, Art History, Music, Art Education, Music Theory, Music Education, Film Arts, Graphic Design, Photography, Speech, Interior Design, Dance, Studio Art
	Sample Occupations	Acting, Artist, Dancer, Interior Designer, Musician, Graphic Designer, Photographer
Trade & Industrial Arts	Post-Secondary Majors	Vocational studies are available in field of interests
	Sample Occupations	Auto Body Repair, Mechanic, Carpenter, Entrepreneur
Family & Consumer Sciences	Post-Secondary Majors	Public Administration, Human Services, Early Childhood Development, Social Sciences, Culinary Arts
	Sample Occupations	Career Studies, Substance Abuse Rehabilitation Counselor, Public Management, Human Services, Child Care, Cook
Agriculture Education	Post-Secondary Majors	Landscape/Turf Management, Forestry, Horticulture, Recreation & Parks, Environmental Management, Environmental Science, Forest Science
	Sample Occupations	Farmer/Rancher, Landscaper, Florist, Golf Course Maintenance
Health Assistant	Post-Secondary Majors	Nursing, Radiography, Physical Therapist Assistant, Respiratory Assistant, Emergency Medical Service, Surgical Technician, Health Information Technology
	Sample Occupations	CPN, LPN, RN, Occupational Therapist, X-Ray Technician, Nutritionist
Electronics & Technology	Post-Secondary Majors	Architecture, Engineering, Industrial Technology, Landscape Architecture, Machine Technology, Mechanical Design & Technology, Technology Education
	Sample Occupations	Architect, Engineer, Computer Aided Designer, Computer Operator, Draftsman, Instrumentation Operator, Lab Technician, Electronics Technician
Business	Post-Secondary Majors	Accounting, Information Systems Technology, Computer Software Specialist, Administration Support Technology, Business Administration, Information Technology
	Sample Occupations	Clerical Staff, Bookkeeper, General Business, Graphic Design Assistant, Administrative Assistant, Entrepreneur

English

The Rockbridge County High School English curriculum contains six main strands of instruction which continue through all four years of high school and increase progressively in complexity. These strands are oral communication, the writing process, levels of grammar, usage and mechanics, vocabulary, critical reading, and the research process.

English 9 Foundations

Grade: 9 1 credit

Prerequisites: Teacher recommendation; 8th grade SOL Reading and Writing scores below 400

The emphasis is on communication skills, including developing fluency in reading and writing. Students spend time in the resource lab to enable them to become progressively computer literate and to reinforce skills. Reading fluency and reading comprehension are stressed, using teacher and student-selected works. Daily instruction and practice are given in following written and oral directions and in developing organizational skills. Classroom texts emphasizing basic English grammar and English composition are incorporated into the weekly schedule.

English 9

Grade: 9 1 credit

This course continues the development and utilization of English skills in reading, writing, speaking, organizing and listening. This academic class emphasizes the reading and critical analysis of literature through short stories, drama, and novels. Language study includes vocabulary, usage, mechanics and grammar. Through varied and frequent short, analytical writing assignments, critical and creative book reviews, and imaginative compositions, students build upon their understanding of writing as a developmental process. They practice discussion skills, cooperative learning skills, and oral presentation skills. Students will begin to use the library/resource lab and to develop research skills.

English 10 Foundations

Grade: 10 1 credit

Prerequisites: English 9; teacher recommendation

The emphasis is on the continued development of communication skills, including developing fluency in reading with a focus on comprehension and writing through a variety of genre. Classroom texts emphasizing basic English grammar and English composition are incorporated into the weekly schedule. Students spend regular time in the resource lab to assist them in the ongoing development of their technical and writing skills.

English 10

Grade: 10 1 credit

Prerequisite: English 9

This course continues the development and the utilization of English skills in reading, writing, speaking, organizing, and listening essential for college coursework. This academic class emphasizes critical analysis of literature that encompasses several genres: short stories, novels, plays, essays and poetry. Language study includes a review of principles concerning SAT vocabulary, grammar, and usage with emphasis placed on the recognition and use of phrases. Writing assignments include short in-class reactions to readings and in-depth analytical papers and revisions. Students continue to develop cooperative learning and oral presentation skills with primary focus on small group work. Research skills are introduced which prepare students for extensive research projects in their junior and senior years. Students explore research methods and materials in the library and learn to cite their information using the MLA style.

English 10 Pre-AP

Grade: 10 1 credit

Prerequisites: English 9; teacher recommendation; application with writing sample.

For this course students must be highly motivated, intellectually curious, and committed to learning. This advanced course is designed for students who wish to enrich their experiences through a demanding and sophisticated study of literature. Writing assignments include extensive analytical papers using critical sources, along with some creative pieces. Students explore research methods and materials in the library and learn to cite their information using the MLA style. The literature focuses on drama, novels, short stories, non-fiction and poetry. Important grammar and usage skills are reviewed with particular attention

paid to those skills connected to critical writing. Students will engage in independent vocabulary study that requires the students to master SAT and AP vocabulary lists in preparation for the PSAT, SAT and AP tests.

English 11 Foundations

Grade: 11 1 credit

Prerequisites: English 10; teacher recommendation

The emphasis for this course is on building communication skills, including developing fluency in reading and writing, in preparation for the SOL test. This course continues to develop the fundamental skills of reading, writing, organization, and responsibility. Students practice using resources such as the computer, books, and manuals. Reading and writing competence continues to be stressed through the use of communications and reading materials.

English 11

Grade: 11 1 credit

Prerequisite: English 10

This academic course focuses on American literature and builds on the increasing expansion of skill development in reading, writing, research, speaking, organizing and listening that is essential for college level work. Students read a variety of works which survey the development of American literature. They compare themes of various works and periods of literature and analyze expository materials for logical reasoning. Students enhance their language skills through advanced study and application of standard rules of usage, mechanics, and grammar with particular emphasis on the recognition and use of clauses. They complete a sophisticated study of vocabulary for SAT preparation. Through varied analytical and creative assignments, students reinforce their written and oral communication skills. They prepare at least one analytical research paper based on American literature.

English 11 Pre-AP

Grade: 11 1 credit

Prerequisites: English 10; teacher recommendation; submission of portfolio scored by a panel of English teachers

For this course students must be highly motivated, intellectually curious, and committed to learning. This advanced class offers a challenging and accelerated in-depth study of American literature and composition. The demanding requirements include intensive and extensive oral and written analyses and interpretation of American short stories, poetry, plays, and novels. Sophisticated vocabulary, grammar, and usage study is presented in tandem with frequent composition assignments. Students must demonstrate an affinity for reading and writing. They should expect rigorous assignments and independent reading, research, and writing projects.

English 12 Foundations

Grade: 12 1 credit

Prerequisites: English 11; teacher recommendation

The emphasis is on the continued development of communication skills, including developing fluency in reading and writing towards the goal of passing the English End of Course SOL tests. Students continue to develop the skills of reading, writing, organization and responsibility, using resources such as computers, books and manuals. Students finalize their job preparation skills by continuing to develop and write resumes, applications and business letters. Communication and reading skills are stressed so that students can successfully cultivate their own interests and abilities, enabling them to maintain jobs and to become productive citizens.

English 12

Grade: 12 1 credit

Prerequisite: English 11

This course continues the development and utilization of English skills in reading, writing, speaking, organizing, and listening essential for college coursework and the workplace. In this academic class, students read and analyze a variety of genres in British and world literature, including epics, drama, poetry, and novels. As part of their study of the development of British literature, they explore the historical and cultural context of representative works from Anglo-Saxon to modern times. Students continue to develop logical thinking and research skills, exhibiting their mastery of these skills through varied written and oral

activities, including analytical papers and a 10-15 minute oral presentation. Additionally, students will demonstrate competence in communication skills through participation in the mock interview project. Language study includes incorporation of vocabulary, application of standard usage, and consideration of purpose and audience to determine focus and style. During the year, utilizing MLA format, each student prepares an annotated bibliography and thesis based on two full-length literary works.

English 12 Advanced Placement

Grade: 12 1 credit
3 college credits/semester (if taken for dual enrollment)

Prerequisites: English 11; teacher recommendation; submission of portfolio and timed writing which will be scored by a panel of English teachers.

Dual enrollment cost: Approximately \$90/semester, 3 credit hours/semester for ENG 111 and 112

English 12 AP helps students strengthen their skills as careful readers of literary text, which will include poetry, drama, fiction, and non-fiction. Through the meticulous examination of language and how it works, students obtain the skills necessary to be confident, competent readers. Additionally, students become attentive to the role that language plays in the aesthetic production of literary works. In conjunction with their reading, students discuss and write insightfully and persuasively about a variety of challenging works written in various historical periods. Successful student writing is original, eloquent, fully developed, logically argued, and soundly supported by appropriate textual references.

In addition to selections from the British Literature text, students will read approximately six major works over the course of the year. Student writing will consist of a short paper (3-5 pages) every three to four weeks and at least one longer (5-8 pages) research based paper. Students are also called upon to discuss assigned readings on a regular basis. Members of this class should exhibit a love of both reading and writing. They should be highly motivated and independent learners. The objective of the course is to improve students' reading and writing skills, thus preparing them to take the AP Literature and Composition exam in May, and more importantly, to prepare them for college success. Grades are determined primarily by student performance on the above described papers as well as on in class assessments. Students will be required to purchase some of the reading material.

Creative Writing Workshop

Grade: 10-12 ½ credit

Prerequisite: Students must truly enjoy writing and be dedicated to the process of improvement.

The course is designed to help highly motivated students write better in a writing workshop format. The class discusses the many sources of creative writing ideas, how to start writing, how to let a piece take on a life of its own, the power of using images from all senses; the importance of using the sounds of words; the importance of using precise diction; the effects of cadence and rhythm on meaning; the effects of forms, patterns and structures; the development of story, character, setting and point of view. The class will discuss model pieces, write their own, read them aloud, share their observations of others' work and revise their own pieces in a workshop setting. The class will free-write to designated prompts, engage in group writing exercises, write observations in journals, distill these ideas into pieces which can be discussed in workshop and then be revised several times. Students should produce several poems or several pages of story each week. The semester exam will be an individual final portfolio of the semester's original work. Students will be encouraged to publish their work. Students who do well in the class and want to repeat it may do so with approval from the teacher and the guidance counselor.

Expository Writing

Grade: 10-12 ½ credit

Prerequisites: Students must recognize the value of writing well and be dedicated to the process of improvement. Students must be able to accept constructive criticism and have a willingness to revise repeatedly.

This expository writing class is designed to help highly motivated, goal-oriented students to become fluent and precise with a variety of rhetorical structures, including the following: narration, description, exposition, classification and division, definition, process analysis, cause and effect, and persuasion or argument. This class is highly recommended for students who will need writing skills in college. Students

produce an essay every two weeks, and are expected to revise their work extensively. The class includes analysis of model essays through class discussion, followed by student drafts, which are evaluated and discussed individually in teacher-student conferences.

Journalism: All three levels of journalism will meet at the same time.

Journalism I

Grade: 10-12 1 credit

Prerequisites: Students must demonstrate good writing skills; completion of application; teacher recommendation.

This course is designed to teach the principles, techniques, and processes used in publishing a high-quality student newspaper. All students are required to write, revise, sell advertisements, participate in layout, take pictures and sell newspapers. Much of the work takes place outside the class on the student's own time. Students need to be highly motivated, curious, independent, creative, prompt, personable, and dependable. This class combines academic classroom work, teamwork, and business skills.

Journalism II

Grade: 11-12 1 credit

Prerequisites: Journalism I; teacher recommendation

This course provides students with the opportunity to develop further the skills learned in Journalism I. Students are given increased responsibility and opportunity for leadership.

Journalism III

Grade: 12 1 credit

Prerequisites: Journalism II, teacher recommendation

This course allows students to enhance the skills of writing, editing, ad design, ad sales, layout and photography already developed in Journalism I and II. The knowledge gained in the two previous years enables third-year students to develop more creativity and individuality in their leadership and in their peer-teaching of first and second-year students.

Fine Arts

Art I

Grade: 9-12 1 credit

Prerequisite: No previous art class is necessary; however the student should have a strong interest in art and be highly motivated.

In this foundation course, students are given the opportunity to explore the elements of art which are line, color, shape, form, texture, value and volume. There is strong emphasis on drawing, painting and composition. Art appreciation is included in this course. There are weekly sketchbook (homework) assignments in which students are expected to spend a minimum of thirty minutes on each drawing. Sketchbooks are an essential part of the curriculum and should be taken seriously. During the second part of this course, students will create work involving the principles of design which are repetition, variety, balance, emphasis, rhythm, movement, proportion and three dimensional media. There are more advanced painting and drawing assignments, as well as printmaking and sculpture.

Art II

Grade: 10-12 1 credit

Prerequisites: Art I; teacher recommendation

Students explore a variety of media such as drawing, acrylic painting, screen-printing and sculpture. Art appreciation is an integral part of the class. Often period styles are the basis for many assignments. The class continues to build upon the basics from Art I as well as to explore new media. Weekly sketchbook assignments are required in which students may spend at least 45 minutes to an hour. Students should have a sincere interest and desire to continue with this next advanced level of visual arts.

Art III

Grade: 11-12 1 credit.

Prerequisites: Art II; teacher recommendation

Art III is for the serious art student who will be preparing a portfolio. Students use more sophisticated materials and techniques in drawing, painting, printmaking and three-dimensional work. This course offers the student information concerning various art related careers. Art appreciation is offered, including the in-depth study of architecture during one nine weeks. There are weekly homework sketchbook assignments in which the student is expected to spend at least one hour on each assignment.

Art IV

Grade: 12 1 credit

Prerequisites: Art III; teacher recommendation

This course is designed for the student who is considering an art-related career. By the time students have reached the Art IV level, they are able to pursue in-depth studies in a variety of more sophisticated materials and techniques. Art appreciation continues to be an integral part of the curriculum. Students are assisted in preparing their portfolios for college admission. There are weekly homework sketchbook assignments on which students should spend one to two hours.

Decorative and Functional Art

Grade: 10-12 1 credit

This course is an introduction to decorative and utilitarian crafts. Students learn the importance of good craftsmanship using a variety of techniques, tools and projects. Students have the opportunity to create the following: paris-craft masks, polymer clay projects, fiber-related media such as weaving, reed and yarn basketry. Students also work with paper crafts such as papermaking and bookmaking. We study works from other cultures such as Huichol bead crafts and the Amate paper cuts. Students will create stained glass mosaics, direct-dye silk paintings, Ukrainian egg decoration, gourds and more.

Ceramics

Grade: 10-12 1 credit

This course is designed to introduce you to hand built and wheel thrown techniques. It is expected that you have an interest in ceramincs and are willing to work in this one medium for an entire year. Traditional and experimental sculpture techniques are explored. The second semester students will have two wheel required projects in addition to hand built work. Additionally, student will learn how a kiln functions and participate in a firing.

Photojournalism I, II, III

Grade: 10-12 1 credit

Prerequisites: Completion of an acceptable application essay for entry into the first year. Completion of high school level Keyboarding Secondary is strongly recommended.

Students learn the principles, techniques, and processes used in publication. They apply these skills to the production of our award-winning yearbook. Students study formatting, copy-writing, layout design, photography, proofreading, editing, and financial applications. Using a page-layout program and Adobe Photoshop, students produce the yearbook using digital computer technology. Students are involved in ad sales in the community, yearbook sales and distribution, and financial record-keeping for a substantial budget. Successful participation in Photojournalism I, II, and III requires the ability to work both independently and cooperatively with a minimum of adult supervision. Some after-school work is required. There is a substantial amount of interaction with the community (both personally and by telephone) and with other students and teachers in the high school. The most important requirement for continued success in this program is the student's willingness to make a year-long commitment to the yearbook and to meeting publication deadlines. Students in second- and third-year classes accept leadership and responsibility for creative design and copy development. They work with first-year students to assist in skills development.

Theatre Arts Exploration

Grade: 9-12 1 credit

The course is designed to give students a general survey of drama as an art form. Students study the evolution of theatre styles, play and character analysis, playwriting, and play directing through the reading

and viewing of various works. Beginning acting techniques are taught, improvisational scenes are developed, and basic technical theatre is introduced. Students must be willing to perform, as well as to complete, written assignments in theatre history and terminology.

Advanced Theatre Arts

Grade: 10-12 1 credit

Prerequisites: Theatre Arts Exploration; teacher recommendation

This course, a more detailed continuation of Theatre Arts Exploration, is designed for the student with an interest in advanced acting, directing or technical theatre. Students continue with skills from previous drama coursework and assume significant acting, directing or production responsibilities for student productions. Each semester culminates with an independent project.

Theatrical Production

Grade: 11-12 1 credit

Prerequisites: Advanced Theatre Arts; teacher recommendation

Students continue the study of theatrical styles with a more practical, hands-on approach; with more advanced work in acting and/or directing; and with class presentations. Each semester each student produces a major individual project in the area of acting, playwriting, directing, theatre history, or technical theatre. Students contemplating a future in theatre develop a repertoire of audition materials and directing credits.

Symphonic Band

Grade: 9 1 credit

Prerequisites: Must have passed 8th grade band; teacher recommendation

This course is for the developing brass and woodwind musician. It develops techniques of performing in a large ensemble. The course will focus on balance, blend, intonation and style. The students will study major scales and technique exercises as well as sight-read and prepare music grade level 2 and up. Performances and occasional after school rehearsals are required. The students will perform with the Pep Band at home football games.

Percussion Ensemble

Grade: 9-12 1 credit

Prerequisites: Must have passed 8th grade band; permission of the teacher

This course is designed for the total percussionist. The focus of the course will be the development of skills on snare drum, timpani, keyboard percussion and auxiliary instruments. The students will learn a variety of techniques and perform as the percussion section of the Symphonic Band and Wind Ensemble. The student will also sight-read and prepare music from percussion ensemble literature. Performances and occasional after school rehearsals are required. The students will perform with the Pep Band at home football games.

Wind Ensemble

Grade: 10-12 1 credit

Prerequisites: Must have passed Symphonic Band; recommendation of the teacher

This course is designed to build upon the skills learned in Symphonic Band. The course will continue to focus on balance, blend, intonation and style. The students will further their study of scales (major or minor) and technique as well as sight-read and prepare music grade 3 and up. Performances and occasional after school rehearsals are required. The students will perform with the Pep Band at home football games.

Jazz Band

Grade: 9-12 1 credit

Prerequisite: Audition with the teacher

The class covers the aspects of playing various jazz music styles. The students will study improvisation and perform music designed for the traditional big band instrumentation. Two alto saxes, 2 tenor saxes, 1 bari sax, 4 trumpets, 4 trombones, piano, guitar, bass and drum set/percussion (to include mallet percussion). Performances and occasional after school rehearsals are required. The students will perform with the Pep Band at home football games.

Marching Band

Grade: 9-12 ½ credit

This course will be offered provided there is a minimum enrollment of 25 students (not including flag corp).

Prerequisite: Teacher recommendation

This class is unusual in that it is not offered during the school day. It begins with several rehearsals and placement auditions (percussion section) in the spring prior to the season. The most crucial time is band camp which takes place during the two weeks prior to the opening of school. Students must be able to attend the two week band camp in order to be in the class. When school begins, rehearsals will take place after school three days a week during the week of a home football game and two days a week during the week of an away football game. The marching band performs at all home football games and several marching band competitions and parades throughout the 1st semester. Although students finish before the end of the semester, they put in as many hours as a typical class. Therefore band camp, all rehearsals and performances are required. Every member's participation is crucial. Therefore, if a student signs-up for this class, the commitments must be made for the duration of the 1st semester. This class is graded Pass/Fail.

Chorus

Grade: 9-12 1 credit

Prerequisite: Ability to carry a tune and match pitches

Students must participate in all scheduled concerts and activities for credit. They are exposed to a variety of musical styles and historic periods, taken predominantly from the standard classical choral repertoire. Students learn to follow musical notation, to recognize time and key signatures, to sing with acceptable tone quality and accurate intonation, to use appropriate posture and breathing techniques, to sing music containing two or more parts, to respond to conducting gestures and expressive signals, and to demonstrate expected rehearsal decorum and appropriate attitude.

Foreign Language

To receive an Advanced Studies Diploma, students are required to earn three credits in one foreign language or two credits in each of two languages. Not all four-year colleges require a foreign language for admission, but many require a minimum of two years of a foreign language.

French I

Grade: 9-12 1 credit

Strong emphasis is given to speaking, listening, reading, and writing French. Basic vocabulary and essential grammar are taught to enable the student to communicate in simple sentences. Students demonstrate understanding of words and expressions in varied contexts. The course requires oral recitation, occasional use of the language lab, and individual participation in conversational French. French culture is studied, and students gain insight into the way of life of other people. Students should spend 20 minutes daily on class preparation.

French II

Grade: 9-12 1 credit

Prerequisites: French I; teacher recommendation

This course includes a review of French I with additional grammar and reading selections designed to introduce the student to French culture. Students develop more advanced skills in reading, writing, speaking, and understanding the language. By the end of the second year, the dedicated student is able to converse competently in French on subjects related to everyday needs. Directions, questions, and explanations are given in French. Students are expected to use French as much as possible.

French III

Grade: 9-12 1 credit

Prerequisites: French II; teacher recommendation

Although the study of grammar continues, it is incidental to the emphasis placed upon reading, writing, and speaking the language. Readings consist of a survey of French culture and history. This course is taught in French as much as possible. Students are expected to ask questions in French and to respond readily to questions, using correct pronunciation. Videotapes, films, and cultural activities add to increased knowledge and familiarity with francophone countries.

French IV Honors

Grade: 10-12 1 credit

Prerequisites: French III; teacher recommendation

This course is designed to prepare students for a high level of French language proficiency in the following areas: conversation, aural comprehension, reading comprehension, composition and French culture. Students must have proven their proficiency in the earlier levels of French language courses in order to participate in this class. Upon completion of this course, students will have developed a more independent command of the language and will be able to demonstrate these skills through prepared and impromptu presentations and exercises. Students who register for the course are expected to complete a summer packet of grammar, reading, and creative writing and to purchase a comprehensive grammar review book designated by the teacher. This course is intended to be fast paced and intensive. The student's willingness to read independently and to explore a variety of related cultural topics contribute to his or her success.

French V Honors

Grade: 11-12 1 credit

Prerequisites: French IV Honors; teacher recommendation

This course is designed for the student who has reached an advanced level of language development and is able to acquire information about the French speaking world through texts, newspaper articles, internet, literature, history, fine arts, movies and French television and radio. The SAT II-French exam is encouraged, but not required. The purchase of a designated French practice manual is required. Willingness to perfect language skills both in and outside of the classroom will contribute significantly to student success.

Latin I

Grade: 9-12 1 credit

Students are introduced to basic Latin grammar and vocabulary and read Latin stories about Roman history, daily life, and Greek and Roman mythology. Class activities develop Latin reading skills, expand Latin and English grammatical facility, and enlarge the student's English vocabulary. Regular assignments in English give small groups and individuals a chance to investigate cultural topics from the ancient world. Co-curricular activities include local club activities, regional team competitions, state Latin convention, national contests, and opportunities for analytic and creative writing. Students are expected to spend 30 to 45 minutes daily on class preparation.

Latin II

Grade: 9-12 1 credit

Prerequisites: Latin I; teacher recommendation

Students conclude their basic introduction to vocabulary, grammar and reading skills and begin study of the advanced grammar. Cultural emphasis is on daily life, the historical background of the Roman nation and government and on the topography and monuments of Rome in light of the Latin readings under study. The same co-curricular opportunities are offered as in Latin I. Students should expect to spend 30-45 minutes on homework each night.

Latin III

Grade: 9-12 1 credit

Prerequisites: Latin II; teacher recommendation

Students conclude their study of the remaining advanced grammar. Transition is made to reading authentic, un-adapted Latin. Students read selections from a variety of Roman authors in both prose and verse, including Livy, Caesar, Cicero, Plautus, Ovid, Martial, and Vergil. Students master advanced grammatical forms and constructions and specialized vocabulary particular to each author and continue to develop their vocabulary of Latin derivatives. Emphasis is placed upon analysis and interpretation of Roman culture through its literature. Students participate in class discussions, small group projects, and individual research on topics relating to the social, political, and historical contexts of the literary works. Co-curricular activities like those for other levels are offered. The Latin SAT II may be taken at the end of this course.

Latin IV, V, VI Honors / Advanced PlacementGrade: 10-12 1 credit
3 college credits/semester (if taken for Dual Enrollment)

Prerequisites: Latin III or Latin IV as appropriate; teacher recommendation.

Dual Enrollment cost: approximately \$90/semester, 3 credit hours/semester for Latin 201 and 202

This is the lone upper level course beyond Latin III and is, therefore, a multi-level class with 4th, 5th and 6th year students (sophomores through seniors). To allow students to take this course for two or three years without repeating the same material, the curriculum alternates on a two year cycle: the Vergil-Caesar AP curriculum one year and a survey of Latin literature and culture the next (as an Honors class). In the year we cover the AP curriculum, students have the option of registering as AP or Honors (for those, usually sophomores, not planning on taking the AP exam). Also, the workload is differentiated between those more advanced students prepping for the AP exam and those not taking the exam. For 2011-12, it will be the general Honors survey course, and students will also be required to complete a summer reading assignment for this class. The course will be structured around several thematic units (e.g. epigraphy, mythology, elegaic poetry), and the Latin readings will come from a variety of Roman authors, both prose and poetry. In both courses, new syntax and vocabulary are studied as they are met in the literature. The emphasis of the curriculum, however, lies in the study of the authors' styles, themes, imagery and place in their society and the history of western literature. Co-curricular assignments include the reading and analysis of critical essays as secondary resources and student writing of analytical essays. Grading is based on quizzes, tests, translation, contributions to class discussion, projects and essay writing. The Advanced Placement exam in May for the Vergil-Caesar course is required (especially for fifth and sixth year students). The Latin SAT II is recommended at some point during this course. In addition to the usual contests and *certamina*, seniors are eligible to compete for regional and national scholarships in the classics.

Spanish I

Grade: 9-12 1 credit

This course develops the four skills of listening, speaking, reading, and writing with a concentration in the first three. The core of the course is grammar study and its use in conversational skills. Included in the cultural study is an overview of Hispanic countries and historical characters. Classwork, projects and homework promote communicative skills, cultural awareness and connections with other disciplines. Students are expected to spend a minimum of 30 minutes daily on class preparation.

Spanish II

Grade: 9-12 1 credit

Prerequisites: Spanish I; teacher recommendation

This course includes a brief review of the basic grammar and vocabulary of Spanish I. Grammar study is continued with emphasis upon more complicated points. The majority of class time is utilized to speak and hear the language. Most written work, including drills and compositions, is completed outside of class. Classroom instruction, except some cultural and grammatical explanations, is in Spanish, and students are expected to speak in Spanish.

Spanish III

Grade: 9-12 1 credit

Prerequisites: Spanish II; teacher recommendation

The course builds upon the four skills established as goals in Spanish II. After a brief review of the basic grammar structures previously acquired, the course emphasizes the development of skills in narration, expressing hopes and wishes and reporting facts in the past. The majority of the class time is dedicated to speaking and hearing the language, with out of class assignments provided daily. These assignments include writing tasks of various lengths, reading for enjoyment and information and vocabulary acquisition and study. Students are expected to work on independent and group projects that develop communicative skills, cultural awareness and connections with other disciplines studied. Classroom instruction, with certain exceptions on grammar issues, is provided in Spanish and students are expected to speak in Spanish within their proficiency level.

Spanish IV Honors

Grade: 10-12 1 credit

Prerequisites: Spanish III; teacher recommendation

This course is designed to introduce the student to the history and literature of Spain and Latin America and to the advanced structures of the Spanish language. Listening, reading, speaking, and writing activities are designed to challenge highly motivated individuals. Students acquire cultural competency through historical, literary, and journalistic readings as well as by viewing authentic video and film samples from various Spanish-speaking countries. Individual and group projects that enhance language and cultural acquisition are assigned each quarter. Additionally, students must use Spanish as the language of communication on a daily basis. The pace of the course is designed to match the intensity of college level study.

Spanish V AP

Grade: 11-12 1 credit

Prerequisites: Spanish IV AP; teacher recommendation

This course is designed for the student who has reached an advanced level of language development and is able to acquire information about the Spanish world through literature, film, periodicals and fine arts. Students are expected to complete projects and to make extensive presentations on topics of personal, political, literary, and artistic interest. Communication skills are enhanced through consistent use of the Spanish language both in and outside of the classroom. The course will emphasize preparation for the Advanced Placement examination, employing exercises and materials designed by the College Board and by the teacher. AP activities include preparation of in-depth oral reports, completion of practice tests and recording of pronunciation tapes. Reading selections correspond to a survey of Spanish and Spanish American literature for the first semester. Grammar is reviewed and perfected in the context of the literary selection under discussion. Selections are taken from actual texts designed for native speakers as well as from AP texts. Purchase of a designated AP manual with CD is required. Preparation for the SAT II Spanish with Listening Exam will be included in class activities. Willingness to perfect language skills both in and outside of the classroom will contribute significantly to student success.

Mathematics**Algebra I**

Grade: 9 1 credit

Prerequisite: Proficiency in pre-algebra

Requirement: scientific calculator (provided by the student)

The focus is on building connections between concrete mathematics and abstract concepts. This course includes the study of real numbers, developing an algebraic vocabulary, identification of properties of numbers and operations, simplification of expressions, solutions of equations and inequalities, and exploration of graphing techniques. Students will acquire proficiency in coordinate graphing, solving systems of equations and working with relations and functions, and solving quadratic equations. Students will use graphing calculators extensively in class.

Algebra I Honors

Grade: 9 1 credit

Prerequisites: Mastery in pre-algebra and at least a 500 on the eighth grade math SOL.

Requirement: scientific calculator (provided by the student)

For this course, students must be highly motivated and possess strong mathematical skills. This advanced class offers a challenging and accelerated study of algebraic concepts. This course is designed for students who are interested in the field of mathematics. This course includes the study of real numbers, development of algebraic vocabulary, identification of properties of numbers and operations, simplification of numerical and algebraic expressions, solutions of equations and inequalities and exploration of graphing techniques. Emphasis is placed on the development of skills in factoring polynomials, simplification of rational expressions and working with relations and functions and solving quadratic equations. Students will use graphing calculators extensively in class.

Geometry SOL Preparation

Grade: 10-12 1 credit

Prerequisites: Algebra I; teacher recommendation

This course concentrates on teaching geometric concepts without requiring students to do formal proofs. Emphasis is placed on the study of plane geometry, coordinate and transformational geometry, and the use of geometric models to solve problems. Special emphasis is placed on applications of geometrical concepts that align with the Standards of Learning. Course content includes topics such as points, lines, and planes; angles; polygons; perpendicular and parallel lines; proportionality and similarity; coordinate geometry; circles; solid figures; and trigonometric ratios. Algebraic equations are integrated into the course and are presented as a means of solving geometric problems. Students will use graphing calculators extensively in class.

Geometry

Grade: 9-12 1 credit

Prerequisites: Algebra I; teacher recommendation

Requirement: scientific calculator (provided by the student)

The focus is on the development of reasoning skills and methods of justification. Emphasis is placed on the study of plane and three-dimensional geometry, coordinate and transformational geometry, and the use of geometric and algebraic models to solve problems. Course content includes topics such as points, lines, and planes; angles; polygons; perpendicular and parallel lines; proportionality and similarity; coordinate geometry; circles; solid figures; and trigonometric ratios. Geometric proofs and problem solving are used to develop analytical reasoning skills and to improve the ability of the student to apply logic in the analysis of problems. Special projects may be assigned. Students will use graphing calculators extensively in class.

Geometry Honors

Grade: 9-10 1 credit

Prerequisites: Algebra I and at least 500 on the Algebra SOL; teacher recommendation or placement test

Requirements: scientific calculator (provided by the student); completion of summer assignment prior to first day of class.

For this course, students must be highly motivated and possess strong mathematical skills. This advanced class offers a challenging and accelerated study of geometric concepts as well as building on Algebra I skills. The focus is on the development of reasoning skills and methods of justification. Emphasis is placed on the study of plane and three-dimensional geometry, coordinated and transformational geometry and the use of geometric and algebraic models to solve problems. Course content includes topics such as points, lines and planes; angles; polygons; perpendicular and parallel lines; proportionality and similarity; coordinate geometry; circles; solid figures; trigonometric ratios; and vectors. Strong emphasis is placed upon geometric proofs and problem solving to develop analytical reasoning skills and to improve the ability of the student to apply logic in the analysis of problems. Technology will include graphing calculators.

Functions and Data Analysis

Grade: 11-12 1 credit

Prerequisites: Geometry; teacher recommendation

This course is for the student who has passed geometry but is not ready for Algebra II. The course will take a technology-based approach to the study of functions that model data from real-world situations. Types of functions will include linear, polynomial, exponential and logarithmic. Students will also be introduced to statistical analysis, including standard deviation and normal distributions. Students will learn how to use the advanced functionality of the graphing calculator as a tool for both problem solving and data analysis. The math department provides graphing calculators to all students in this class.

Algebra II

Grade: 10-12 1 credit

Prerequisites: Geometry credit; teacher recommendation

The focus is on developing an understanding of advanced algebraic concepts. Those concepts which have been presented in Algebra I and geometry are reviewed, expanded and strengthened. Emphasis is placed on the study of functions, polynomials, rational expressions and complex numbers. New topics to be introduced include transformational graphing, matrices and sequences and series. Mathematical models

for solving practical applications are developed. Graphing calculators are provided by the math department.

Algebra II Honors

Grade: 10-11 1 credit

Prerequisites: Geometry or Geometry Honors and at least a 500 on the Algebra I and Geometry SOLs; teacher recommendation or placement test

Requirements: Graphing calculator TI-83/84 plus provided by the student (special arrangements will be made for students who cannot purchase a calculator); completion of summer assignment prior to first day of class.

For this course, students must be highly motivated and possess strong mathematical skills. This advanced class offers a challenging and accelerated study of advanced algebraic concepts. Emphasis is placed on the study of functions, polynomials, rational expressions and complex numbers. New topics that are covered include transformational graphing, matrix operations, sequences and series, conic sections, discrete mathematics, probability and trigonometry.

Pre-Calculus

Grade: 11-12 1 credit

Prerequisites: Algebra II; teacher recommendation

Requirements: Graphing calculator TI-83/84 plus provided by the student (special arrangements will be made for students who cannot purchase a calculator).

The focus of this course is to prepare students for the study of Calculus by strengthening Algebra II skills and by developing an understanding of trigonometry and advanced algebraic concepts. Emphasis will be placed upon a review of Algebra II skills, use of trigonometric methods, analysis of functions, exponential and logarithmic functions, and an introduction to the study of limits. The course is designed to provide the skills and problem-solving abilities in college level mathematics for those students not majoring in mathematics or engineering.

Pre-Calculus Honors

Grade: 11-12 1 credit

Prerequisites: Algebra II or Algebra II Honors; teacher recommendation; or a placement test.

Requirements: Graphing calculator TI-83/84 plus provided by the student (special arrangements will be made for students who cannot purchase a calculator); completion of summer assignment prior to first day of class.

The focus of this course is to prepare the student for the study of Calculus. The course is intended for students who have mastered the concepts presented in Geometry and Algebra II. Students investigate functions through graphical and analytical solutions. Emphasis is placed on the use of trigonometric methods, rectangular/polar coordinate systems, vectors and determinants, sequences and series, and the study of limits. This course is designed to develop the skills and problem-solving abilities that are required in college level mathematics and science courses. Extensive use is made of the graphing calculator.

Introduction to Calculus / Dual Enrollment

Grade: 12 1 credit
5 college credits/year (if taken for Dual Enrollment)

Prerequisites: Pre-Calculus; teacher recommendation

Requirements: Graphing calculator TI-83/84 plus provided by the student (special arrangements will be made for students who cannot purchase a calculator); completion of summer assignment prior to first day of class.

Dual Enrollment cost: approximately \$150/year, 5 credit hours/semester for Math 173

This course is intended for seniors who have passed Pre-Calculus but are not ready for AP Calculus. The first part of the course will be spent reviewing topics from algebra, analytic geometry and pre-calculus courses. The remainder of the course will be largely devoted to the study of differential calculus and an introduction to integral calculus will be presented in the last nine weeks. Central concepts covered include limits, continuity, rates of change, rules of differentiation, anti-differentiation and the Fundamental Theorem of

Calculus. Major emphasis is placed on the development of problem solving skills based on these concepts, and applications of calculus in real-world situations will be stressed.

Calculus Advanced Placement/Dual Enrollment

Grade: 12 1 credit
5 college credits/semester (if taken for Dual Enrollment)

Prerequisites: Pre-Calculus; teacher recommendation

Requirements: Graphing calculator TI-83/84 plus provided by the student (special arrangements will be made for students who cannot purchase a calculator); completion of summer assignment prior to first day of class.

Dual Enrollment cost: approximately \$150/semester, 5 credit hours/semester for Math 173 and 174

Topics studied in this course are based upon Calculus AB/BC curriculum as prescribed by the College Board.

This is a college level course with college credit available through the Advanced Placement Test or dual enrollment credit, so the expectations of effort and performance are very high. This course is intended for students who have a thorough knowledge of analytical geometry and extensive understanding of functions (including trigonometric functions) as presented in Algebra I & II, geometry and pre-calculus. Within this framework, students investigate the central concepts of calculus, including limits, continuity, rates of change, and area under a curve. Major emphasis is placed on the development of problem solving skills based on these concepts, and applications of calculus in real-world situations will be stressed. Graphing calculators will be used extensively. Students are expected to take the AP Calculus exam or take the course for dual enrollment credit (or both).

Statistics AP / Dual Enrollment

Grade: 11-12 1 credit
3 college credits/semester (if taken for Dual Enrollment)

**This course is offered every two years provided there is student interest and available personnel (school years starting in an odd year).*

Prerequisites/Co-requisites: Pre-Calculus; teacher recommendation

Requirements: Graphing calculator TI-83/84 plus provided by the student (special arrangements will be made for students who cannot purchase a calculator); completion of summer assignment prior to first day of class.

Dual Enrollment cost: approximately \$150/semester, 3 credit hours/semester for Math 240

This course presents an overview of statistics, including descriptive statistics, elementary probability, probability distributions, estimation, hypotheses testing (one-sample and two-sample case for mean and proportion), correlation and simple linear regression. Selected nonparametric testing procedures are also introduced. Technology will include minitab software and graphing calculators. Students are expected to take the AP Statistics exam or take the course for dual enrollment credit (or both).

Physical Education

Physical Education / Health 9

Grade: 9 1 credit

Fee: \$20.00 for uniform which must be worn to pass the class

Physical Education is designed to develop physical fitness and wholesome use of leisure time. Physical activities consist of physical fitness tests, flag football, volleyball, basketball, badminton, floor hockey, pickle ball, softball, soccer, and track and field. Students are responsible for baskets and locks issued. For hygiene reasons, the department asks that students shower after each class. It is the student's responsibility to bring his or her own towel.

Health discusses safety awareness; first aid procedures; cardiopulmonary resuscitation with manikin use; skeletal, muscular, integumentary, and cardiovascular systems along with Family Life education, which includes tobacco, alcohol and drug use. Tests, quizzes, and a final exam are required each semester.

Physical Education / Health 10

Grade: 10 1 credit

Prerequisite: Physical Education/Health 9

Fee: \$20.00 for uniform which must be worn to pass the class

Physical Education consists of exercise and skill development in individual and team sports with an emphasis on lifetime activities. The units include flag football, soccer/speedball, advanced volleyball and basketball, badminton/bowling, floor hockey, physical fitness tests, softball, tennis, stick lacrosse, and track and field. Students are responsible for baskets and locks issued. For hygiene reasons, the department asks that students shower after each class. It is the student's responsibility to bring his or her own towel.

Health topics such as current health problems, sexually transmitted diseases, Aids, Family Life education, and alcohol and other drugs are also covered. Tests, quizzes and a final exam are required.

Driver Education

Grade: 10 Pass / Fail

Prerequisite: Physical Education/Health 9

Students are required to complete 36 hours of Driver Education classroom instruction. The curriculum consists of 11 modules that range from licensing responsibilities, basic maneuvering, information processing, driver performance and responsibilities, and making informed choices. Tests, quizzes, and a final exam are required.

Strength Training

Grade: 10-12 0.5 cr. / semester
1 cr. / year

This elective course is for individuals interested in weightlifting. The course serves as an introduction to weight equipment and weight training for the novice; it also serves the intermediate and advanced lifter through the identification of individual goals and development of personalized weight programs.

Science

Earth Science

Grade: 9 1 credit

Earth Science provides the foundation for most of the sciences courses offered. This course examines Earth's features and processes and its placement in the universe. Emphasis is placed on the constant changes that Earth undergoes, and how those changes affect landforms, rock structures, and life itself. The class provides instruction in the areas of astronomy, meteorology, geology, ecology, and oceanography through laboratory experiences, group activities, projects, and writing assignments.

Biology

Grade: 10 1 credit

Prerequisite: Earth Science

This laboratory-oriented course is designed to provide students with a background in the biological concepts while experiencing proper experimental design and analysis. The course builds on concepts taught in Earth Science and uses these concepts to focus on the life processes within the cell, reproduction, genetics and biotechnology, ecology, zoology, evolution, and botany. Research papers, projects, and formal laboratory reports are utilized to assist students in developing higher level thinking skills and college preparatory.

Biology Honors

Grade: 10 1 credit

Prerequisites: Algebra II Honors or concurrent enrollment or teacher recommendation, Earth Science

Biology Honors is an accelerated course that prepares students for Biology Advanced Placement. The course provides an in-depth look at molecular biology, cells, genetics, evolution, classification, and ecology and requires additional reading outside of the classroom. Independent projects, formal research papers, and laboratory reports are utilized throughout the course to support materials covered. Only students who are considering a future in the biological sciences and can commit to additional time outside of the classroom should consider taking this course. **It is recommended that students who successfully complete the course should register for Biology AP and Chemistry Honors their junior year.**

Chemistry

Grade: 10-12 1 credit

Prerequisite: Algebra II or concurrent enrollment

Based on the study of the nature and properties of matter, this course uses quantitative, qualitative, and experimental analysis. Emphasis is placed on problem-solving techniques and on higher level thinking skills. Laboratory work is an integral part of the course with emphasis on safely using lab skills, application of learned materials to practical use, and techniques for writing laboratory reports and technical papers. Chemistry is a math-oriented class requiring excellent abstract thinking and analytical skills.

Chemistry Honors

Grade: 10-11 1 credit

Prerequisite: Algebra II Honors or concurrent enrollment

This course is designed for students with a genuine interest in science and math. The course is enriched with challenging topics from the Chemistry Advanced Placement curriculum. Students can expect to have a minimum of one hour of homework each night. As a course supplement, the class is expected to read and discuss articles from "Scientific American" each month. Lab work concentrates on the actual design of laboratory exercises to demonstrate lecture concepts. Successful students are highly motivated and are seriously considering a college major in science.

Geology (ES II)

Grade: 11-12 1 credit

Prerequisites: Earth Science, Biology, Chemistry or concurrent enrollment

This course focuses on the composition and structure of the earth and its modifying agents and processes. Geology investigates Earth's history, formation of rocks and minerals, weathering and erosion, plate tectonics, crustal formations, select areas in astronomy and oceanography and local applications.

Physics

Grade: 10-12 1 credit

Prerequisite: Successful completion of Algebra II CP

This course affords students the opportunity to develop an awareness of fundamental concepts of physics through experimentation. Emphasis is placed on laboratory, project design and solving physical problems through the application of physical laws, geometry and trigonometry. Physics prepares college bound students with the concrete knowledge of mechanics, energy, acoustics, optics, electricity and modern physics.

Advanced Survey of Biology Topics (Bio II)

Grade: 11-12 1 credit

Prerequisites: Earth Science, Biology

Survey of Biology Topics is designed for students who wish to further investigate themes from biology. Topics will include biological systems of higher order organisms (human biology), genetics with an emphasis on forensics science and human ecology. Laboratory experiences and hands-on activities enrich the topics addressed in the course. Students will be exposed to crime solving and medical examination techniques, in addition to becoming prepared for making future critical personal decisions.

Survey in Earth Science Topics (ES II)

Grade: 11-12 1 credit

Prerequisites: Earth Science, Biology

This class is designed to assist students who want to further their interests in geology, oceanography, meteorology, and astronomy. The dynamics of the Earth from its origin to current conditions will be approached from these four core areas of earth science. Class activities, projects and experimental opportunities will provide students with an enriched exposure to these areas of Earth Science II.

Biology Advanced Placement / Dual Enrollment

Grade: 11-12 1 credit

4 college credits/semester (if taken for Dual Enrollment)

Prerequisites: Biology or Biology H (strongly recommended), Chemistry or Chemistry H

Dual Enrollment cost: approximately \$120/semester, 4 credit hours/semester for Bio 101 and 102

Biology AP is an accelerated, college-level biology course. Extensive readings, lectures and laboratory work provides the student with the same material offered in a college biology course. Topics covered include genetics, microbiology, molecular biology, comparative anatomy, evolution, and ecology. This course is very rigorous, requiring additional hours outside of class time for laboratory work and reading. Students taking this course as advanced placement will be required to take the Biology AP exam.

Chemistry Advanced Placement / Dual Enrollment

Grade: 11-12 1 credit
4 college credits/semester (if taken for Dual Enrollment)

Prerequisite: Chemistry Honors or Chemistry (with teacher recommendation)

Dual Enrollment cost: approximately \$120/semester, 4 credit hours/semester for Chem 111 and 112

Chemistry AP is designed to be the equivalent of a general chemistry course taken the first college year. Topics include matter, thermo-chemistry, kinetics, electrochemistry, reaction, nuclear, organic, and metallic chemistries. This course is designed to challenge the student's laboratory and higher level thinking skills. Textbooks and laboratory experiments are on the college level and students should expect to spend a considerable amount of time on laboratory reports and course work. Students may schedule for additional time outside the normal class-time to complete laboratory work. Students with a high interest in the chemical, biochemical, and medical fields are encouraged to take this course. At the end of the course students will take the Chemistry AP exam for possible college credit.

Human Anatomy and Physiology Honors (BIO II)

Grade: 11-12 1 credit

Prerequisites: Biology, successful completion of Chemistry or concurrent enrollment

The course is rigorous and lab oriented, designed to educate the student in the structure and function of the human body. Students interested in pursuing a four-year degree in the life sciences or in a medical field are strongly encouraged to consider this course. Class presentations, formal laboratory reports, dissections, and lab practica are utilized to enhance learning and prepare the student for college science courses.

Physics Advanced Placement / Dual Enrollment

Grade: 12 1 credit
4 college credits/semester (if taken for Dual Enrollment)

Prerequisite: Calculus or concurrent enrollment

Dual Enrollment cost: approximately \$120/semester, 4 credit hours/semester for Physics 201 and 122

Physics Advanced Placement is a rigorous calculus-based course which focuses on three core areas in physics: Newtonian mechanics, Electricity, and Magnetism. Use of calculus in problem solving and in derivations is expected to increase as the course progresses. The course includes weekly labs, problem sets and projects and is designed to prepare students for post secondary studies in math and science. At the completion of the course, students will be required to take the AP Physics C exam.

Social Studies

World Affairs

Grade: 9 1 credit

This course will examine selected contemporary global issues in their historical context with emphasis on the following skills: research, including computer skills; analytical reading; interpretation of numerical and visual data, including maps; expository writing and oral presentations; collaborative learning, including team-building, conflict resolution and negotiation; and evaluation of perspectives in a variety of social studies resources.

World History & Geography II (from 1500 to present)

Grade: 10 1 credit

Prerequisites: World History I or World Geography; teacher recommendation; recommended for success in U.S. History.

World History II incorporates a study of history and geography from the Renaissance (1500 A.D.) to the present with a strong emphasis on the history and development of Western civilization. Topics include the evolution of scientific and technological revolutions which create new economic models; social and political changes; the biographies of individuals who contributed to societal development, and it includes a historical writing assignment. Strong connections are drawn between historical events and contemporary issues. This

course is strongly recommended for students who anticipate enrolling in U.S. History AP, U. S. Government AP or World History AP.

Foundations in Virginia & U.S. History

Grade: 11 1 credit

Prerequisite: Teacher recommendation

or year before Graduation

This course is a survey of VA & U.S. History from the Age of Exploration to the present. Students study American culture through a chronological survey of major issues, movements, people, and events in the United States and Virginia. Emphasis is placed on the development of reading, writing, and study skills. Greater individualized instruction and group participation are available. This course also emphasizes the practical applications of knowledge and the development of good citizenship.

Virginia & U.S. History

Grade: 11 1 credit

or year before Graduation

Students examine and analyze the development of American ideas and institutions from the Age of Exploration to the present. Students acquire knowledge of American culture through a chronological survey of major issues, movements, people and events in United States and Virginia history. Students use historical and geographical analysis skills to explore in depth the events, people, and ideas that fostered our national identity and led to our country's prominence in world affairs.

Virginia & U.S. History Advanced Placement

Grade: 11 1 credit

or year before Graduation

The course offers a survey of Virginia and U. S. History from 1492 to the present. A college-level text is required, and all parallel readings are typical of those required in a college-level course. Students must have superior writing skills and an ability to work with a minimum of supervision and direction. Students who enroll in this course must be prepared for an unusual amount of required reading. Much of that reading will be considerably more difficult than previously encountered. Additionally, students must possess skills needed to interpret primary documents and to write analytical essays. At least one hour per night needs to be set aside for homework. Students will take the US History AP exam in May.

Virginia & U.S. Government

Grade: 11 1 credit

or year before Graduation

Students examine the philosophy and the structure and functions of American government at the federal and state levels. The focus is on political decision-making, comparative political and economic systems, global issues and the student's responsibilities as a citizen. Critical thinking and analytical writing are refined.

Virginia & U.S. Government Advanced Placement

Grade: 12 1 credit

or year before Graduation

This is a college level course aimed at the highly motivated student who wishes to obtain college credits in the area of Political Science through the AP test. Primarily the class is an in depth study of the theory, structure and practices of the United States government and the processes of the American political structure. Analytical in nature, the course will also explore the nature of political beliefs and behaviors in reference to the American experience. Students will take the US Government AP exam in May.

World History AP / Dual Enrollment

Grade: 11-12 1 credit

3 college credits / semester (if taken for dual enrollment)

Dual Enrollment cost: Approximately \$90/semester, 3 credit hours/semester for HIS 111 and 112

The AP World History course will follow the course description and curricular requirements established by the College Board. The course covers the entire span of World History, from approximately 8000 B.C.E. to the present. As stated in the official College Board course description, "the purpose of the AP World History course is to develop greater understanding of the evolution of global processes and contacts in different types of human societies. The understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. The course highlights the nature of changes in global frameworks and their causes and consequences, as well as comparisons among major societies. It emphasizes relevant factual knowledge, leading interpretive issues, and skills in analyzing types of historical

evidence.” Great emphasis will be placed on the student’s ability to think critically, analyze and evaluate information, and articulate complex ideas both orally and in writing.

Economics and Personal Finance

Economics and Personal Finance

Grade: 11-12 1 credit

This class will prepare students for a financially independent life beyond high school. Students will explore strategies for a job, budgeting, using credit wisely, buying cars and houses, and investing in the future. In addition, students will examine the fundamentals of a market economy, including the laws of supply and demand, production and consumption of goods and services, money and banking, and government spending and taxation.

Economics and Personal Finance Honors / Dual Enrollment

Grade: 11-12 1 credit

3 college credits/semester (if taken for dual enrollment)

Dual Enrollment cost: approximately \$90/semester, 3 credit hours/semester for ECO 201 and 202

This course provides a comprehensive survey of the principles of economics, with special emphasis on the American economy and its participation in world markets. It examines the fundamental operations of a market economy, including the laws of supply and demand, the production and consumption of goods and services, gains from trade, market efficiency, forms of business organization, market structure, money and banking and government spending and taxation. The course will incorporate the proposed Standards of Learning for economics and personal finance. A major in economics provides an excellent background for careers in business management, law, accounting, finance and government service. Students may choose to take the Economics AP exam in May.

Technical

In today’s rapidly changing job market, a worker with narrow skills – however expert – can be outdated even before finishing school. Employees need training that is applicable to more than a single job.

Technical courses are offered with a very special purpose in mind: to provide young people an opportunity to prepare for successful careers. These programs offer students at all ability levels challenging opportunities designed to respond to the community’s employment needs. Students may choose to seek employment upon graduation or to continue their formal education through apprenticeship programs or advanced study in technical institutes, community colleges or four-year colleges.

Agriculture Education

Agriculture education at RCHS focuses on the many opportunities that await our students. Students develop skills necessary for employment and further education in any career. The program is specialized to cater to various interests. Students can take an array of subjects specializing in the areas of Business, Mechanics and Small Animal Care management. Two full years of Agriculture are required in order to be called a program completer. Students are encouraged to participate in the national FFA organization to practice skills learned in the classroom and to have a fun group of which to be a part. The FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success. Our chapter works diligently in the areas of leadership development, team competition, advancing degrees, and supervised agriculture experience. FFA dues cover membership in the chapter, state, and national associations. These dues also cover a subscription to the FFA’s bimonthly magazine, “New Horizons.”

Agriculture I: Foundation of Agriculture, Food and Natural Resources

Grade: 9-10 1 credit

This course is designed to develop competencies in each of the career pathways as they pertain to agriculture education, including the areas of Virginia’s agriculture industry; the global scope of agriculture; scientific research concepts in plant, animal and food science; principles of leadership and opportunities within student organizations; agribusiness and Supervised Agricultural Experience program opportunities; agricultural skills and safety in power, structural and technical systems; and natural resources and environmental systems. All courses in the agriculture department require students to join the student organization, FFA. There is a co-curricular student organization fee of \$18 for this class.

Agriculture II: Mechanics and Basic Animal Science

Grade: 10-11 1 credit

Prerequisites: Agriculture I; teacher recommendation

This course is recommended as a introduction to advanced courses related to animal science, production and marketing. Students continue to learn agricultural mechanics with emphasis placed on fundamentals of power woodworking and wood and metal preservatives. They also receive instruction in animal science and further develop competencies in rural and urban living, leadership and resource conservation. All courses in the agriculture department require students to join the student organization, FFA. There is a co-curricular student organization fee of \$18 for this class.

Agriculture III: Business Fundamentals

Grade: 11-12 1 credit

[This course will be offered on even years]

Prerequisites: Agriculture II or Horticulture II; teacher recommendation

Students develop the necessary knowledge, skills, habits and attitudes for employment in off-farm agricultural businesses. These employability and leadership skills are emphasized. Student will also learn basic fundamentals of applied economics. There is a co-curricular student organization fee of \$18 for this class.

Agriculture III: Animal Production Technology

Grade: 11-12 1 credit

[This course will be offered on odd years]

Prerequisites: Agriculture II; teacher recommendation

This course is part of a series of classes aimed at preparing students for employment in the agriculture industry or for advanced training in an agriculture program. The course emphasizes various areas of plant science, natural resources, animal science and agricultural mechanics. Supervised agricultural experience programs and leadership training are important parts of the course. All courses in the agriculture department require students to join the student organization, FFA. There is a co-curricular student organization fee of \$18 for this class.

Small Animal Care I

Grade: 9-11 1 credit

Students learn how to care for and manage small animals, focusing on instructional areas in animal health, nutrition, management, reproduction, evaluation, training and, when applicable, showmanship. Course content also includes instruction in the tools, equipment and facilities for small animal care and provides activities to foster leadership development. All courses in the agriculture department require students to join the student organization, FFA. There is a co-curricular student organization fee of \$18 for this class.

Small Animal Care II

Grade: 10-12 1 credit

Prerequisites: Small Animal Care I; application and teacher recommendation

Students advance their skills in the care and management of small animals, focusing on the specific needs of various breeds. Instruction includes grooming and handling animals, as well as technical functions related to animal health. The course includes office-management instruction and affords students the opportunity to practice leadership skills. All courses in the agriculture department require students to join the student organization, FFA. There is a co-curricular student organization fee of \$18 for this class.

Veterinary Sciences

Grade: 11-12 1 credit

Prerequisites: Small Animal Care II ; application and teacher recommendation

This course provides students with the employability and technical skills needed to succeed in postsecondary education and a career in veterinary medicine or in a related occupation. Course content will include the integration of academics, career skills and instruction in the use of tools, equipment and facilities for veterinary medicine. Business management, leadership and FFA activities are included in the course. Students enrolled in the course should have a strong background in math and science and knowledge of small animal care. All courses in the agriculture department require students to join the student organization, FFA. There is a co-curricular student organization fee of \$18 for this class.

Equine Sciences

Grade: 9-12 1 credit

In this course students learn how to care for and manage horses. Equine health, nutrition, management, reproduction, training, evaluation and showmanship are the major instructional areas. In addition, course content includes instruction in the tools, equipment and facilities for equine enterprises. Business management topics include the economics of boarding, training and merchandising horses. All courses in the agriculture department require students to join the student organization, FFA. There is a co-curricular student organization fee of \$18 for this class.

Note: If a student is enrolled in more than one agriculture course they need only pay one course fee of \$18.

Business

All business courses are excellent electives for college bound students as well as students planning to enter the work force after high school. To be a business completer, students must complete two full credits of sequenced courses.

Principles of Business and Marketing

Grade: 9-10 ½ credit

This introductory course provides an overview of important concepts in the world of business and in the global economy. Students will be introduced to core business concepts, such as types of business ownership, types of business organization, the role of management, and marketing functions. Students will investigate technological trends in business and marketing and will develop communication and interpersonal skills. An introduction to basic financial concepts will provide a strong background for students as they prepare to make sound decisions as consumers, wage earners, and citizens.

Keyboarding Secondary

Grade: 9-10 ½ credit

Whether a beginner on the keyboard or an expert, this semester course will help students improve keying accuracy and speed. In addition to building skill at keying alphabetic and numeric information, students will learn word processing skills in Microsoft Word to prepare and format documents such as reports, letters, résumés and tables.

Computer Applications

Grade: 9-10 ½ credit

Prerequisite: Keyboarding Secondary

This semester course is designed to help students gain the skills and knowledge they will need to effectively use computers in today's society. Students will explore how computers work, the Internet, and how to manage a computer using Microsoft Windows. Students will complete various projects to develop skills in word processing, spreadsheets, databases, and simple Web page design. This is an excellent course for both college-bound and career-bound students.

Computer Information Systems

Grade: 9-12 1 credit

Prerequisite: Keyboarding Secondary or semester of middle school Keyboarding

This year-long course is designed to help students gain the skills and knowledge they will need to effectively use computers in today's society. Students will explore how computers work, networking and the Internet, and how to manage a computer using Microsoft Windows. Students will learn to use Microsoft Office programs to complete various projects in word processing, spreadsheets, databases, multimedia presentations, and Web site design. This is an excellent course for both college-bound and career-bound students.

Accounting

Grade: 10-12 1 credit

Accounting provides an excellent opportunity for the business completer and the college-bound student, especially those considering any type of Business related degree. This full-year course develops an understanding of the procedures that businesses go through in a year's time to accurately keep financial records then continues with more advanced accounting procedures that are used in the workplace today. Employment in the field of accounting continues to grow steadily and offers rewarding pay scales. Students

will explore the excellent career opportunities that are available to graduates with an accounting background.

Office Administration

Grade: 10-12 1 credit

Prerequisite: Keyboarding Secondary or semester of middle school Keyboarding

This year long course teaches students employability skills to be successful employees in any working environment. Students study office procedures, telecommunications, records management, financial records management, human relations, spreadsheets, and databases. The course also includes an introduction to office careers with emphasis on positive work habits and attitudes important for success on the job.

Word Processing

Grade: 11-12 1 credit

Prerequisite: Keyboarding Secondary or semester of middle school Keyboarding

Students develop intermediate to advanced level word processing skills using the features of Microsoft Word. Students' skills are developed through the use of several real-life simulations. Classroom experiences also provide for skill development in various forms of communications as well as enhanced employability skills. Students completing this course have acquired marketable job-entry office skills. Students will prepare and be tested for industry certification as a Microsoft Office Specialist.

Design, Multimedia and Web Technologies

Grade: 10-12 1 credit

Prerequisites: Keyboarding Secondary or semester of middle school Keyboarding and one other full-year business course

This year-long course offers students more advanced training in designing projects and presentations using desktop publishing, multimedia presentation, Web page design, graphic design and video editing software. Students will design projects such as newsletters, business cards, and brochures using Microsoft Word and Microsoft Publisher. Students will develop and deliver multimedia presentations using Microsoft PowerPoint. Students will also learn to develop Web sites using Microsoft Expression Web and Macromedia Dreamweaver. Students will create and edit graphics using Adobe Photoshop and Macromedia Fireworks. Students will learn to create and edit videos using Adobe Premier. Students will prepare and be tested for industry certification as a Microsoft Office Specialist. This is an excellent course for both college-bound and career-bound students.

Family and Consumer Science

Family Focus

This program provides youth with a set of experiences to prepare them for adulthood; to become competent in the management of their individual, family, and work lives; and to apply these skills to jobs and careers. The program is based on what students need to know and on what they are able to do in order to be competent in the demanding, challenging, and changing world of the family. The curriculum for the program includes the development of the process skills of managing work and family life, solving personal and family problems, relating to others, and assuming a leadership role as a responsible citizen. The course content focuses on six areas that reflect the practical problems faced as part of the world of the family. The following courses have been developed with the intent of teaching the content through higher order thinking skills, specifically the practical reasoning approach. Membership in FCCLA is a co-curricular part of each course.

Individual Development

Grade: 9-10 ½ credit

Students focus on encouraging personal potential of self and others throughout the life span; enhancing positive views of self and others; managing stressful situations; formulating a plan to achieve career goals; forming healthy, caring relationships with family members and peers; managing conflict; choosing responsible ways to express oneself; and evaluating the importance of responsible parenting to individuals, families, and society. Teachers highlight basic skills of math, science, and communication when

appropriate in the content. Membership in FCCLA is strongly encouraged; the cost is \$20. Purchase of Sewing Unit Spirit Pillow Kit is encouraged; cost is \$10.

Leadership Development

Grade: 9-12 ½ credit

Prerequisite: Individual Development

This course focuses on development of leadership, citizenship, organizational, and personal interaction skills; development of positive self-concept through leadership roles; use of communication and social skills in the community; participation in community, home, and workplace learning projects; exploration of volunteerism; and transference of leadership and citizenship skills to career development. This course includes three community-based projects and one in-depth individual project. Membership in FCCLA is strongly encouraged; cost is \$20.

Nutrition and Wellness

Grade: 10-12 ½ credit

Students focus on making choices that promote wellness and good health, analyzing relationships between psychological and social needs and food choices, choosing foods that promote wellness, obtaining and storing food for self and family, preparing and serving nutritious meals and snacks, selecting and using equipment for food preparation, and identifying strategies to promote optimal nutrition and wellness of society. Teachers highlight the basic skills of math, science, and communication when appropriate in the content. The course project is a nutrition brochure and a family heritage cookbook. Membership in FCCLA is strongly encouraged; cost is \$20.

Family Relations

Grade: 10-12 ½ credit

Students focus on analyzing the significance of the family, nurturing human development in the family throughout the life span, analyzing factors that build and maintain healthy family relationships, developing communication patterns that enhance family relationships, dealing effectively with family stressors and conflicts, managing work and family roles and responsibilities, and analyzing social forces that influence families across the life span. Teachers highlight basic skills of math, science, and communication when appropriate in the content. The course project is a family heritage scrapbook purchased by the student. FCCLA membership is encouraged; cost is \$20.

Parenting

Grade: 10-12 ½ credit

Students focus on assessing the impact of the parenting role in society; taking responsibility for individual growth within the parenting role; preparing for a healthy emotional and physical beginning for parent and child; meeting developmental needs of children and adolescents; building positive parent-child relationships; using positive guidance and discipline to promote self-discipline, self-respect, and socially responsible behavior; obtaining parenting information, support, and assistance; and planning ways that families and society can share in nurturing children and adolescents. The course project for this class is a See Me Grow scrapbook which contains various pictures from their childhood. Membership in FCCLA is strongly encouraged; cost is \$20.

Life Planning

Grade: 11-12 1 credit

Students focus on developing a life-management plan; caring for self and others to ensure wellness; building and maintaining constructive relationships; building and maintaining strong, functional families; developing strategies for lifelong career planning and coordinating personal and career responsibilities. Teachers highlight the basic skills of math, science, and communication when appropriate in the content. Course project is an on-going Career Portfolio. Membership in FCCLA is strongly encouraged; cost is \$20.

Career Focus

Introduction to Culinary Technology

Grade: 9-10 ½ credit

Fees: \$20.00 FCCLA dues (Optional); \$15.00 apron, visor and workbook

Students are introduced to the Culinary Arts profession through classroom instruction and minimal kitchen lab experience. Through this class, students gain an overview of the hospitality industry, along with identifying workplace readiness skills. Their study includes basic kitchen equipment operation, sanitation and safety procedure and basic cooking skills.

Culinary Technology I

Grade: 10-11 2 credits

Prerequisites: Teacher recommendation; application

Fees: \$20.00 FCCLA dues; \$15.00 apron, visor and workbook

Students prepare for managerial, production, and service skills used in government, commercial, or independently owned institutional food establishments and related food industry occupations. Their study includes planning, selecting, storing, purchasing, preparing, and serving food and food products; basic nutrition, sanitation, and food safety; the use and care of commercial equipment; serving techniques; and the operation of institutional food establishments. Teachers highlight the basic skills of math, science, and communication when appropriate in content.

Culinary Technology II

Grade: 11-12 2 credits
3 college credits/semester (if taken for Dual Enrollment)

Prerequisites: Culinary Technology I; teacher recommendation

Fees: \$20.00 FCCLA dues; \$15.00 apron, visor and workbook

Dual Enrollment cost: approximately \$90/semester, 3 credit hours/semester for _ and _

Students extend and expand skills learned in Culinary Technology I, preparing for occupational skills for workers in public, private, and independently owned food occupations such as chef/cook, baker/pastry helper, pastry decorator, hospitality worker, dietetic aide; assistant food demonstrator, and entrepreneur. Cooperative (on-the-job) education or an internship under the supervision of the instructor is an option. A training agreement and plan is required.

Health and Medical Sciences

The health care industry is booming. Tremendous shortages in many specialized health occupations continue to exist. Students with well-developed health care competencies will find a wealth of employment opportunities. A variety of post-secondary educational options are also available for program completers who desire further training.

Introduction to Health Assistant

Grade: 9-10 1/2 credit

This course is designed as an exploratory unit for students who express an interest in health occupations. It offers exposure to different types of health care systems and health careers. Basic first aid and other health-related skills are introduced during the semester. Guest speakers and field trips are utilized during the course of study.

Health Assistant I

Grade: 11 2 credits

Prerequisites: Algebra I; teacher recommendation

Recommended Courses: Latin I, Geometry

Students explore several careers in the allied health field. Development of basic skills common to several assisting careers is emphasized. Instruction covers medical terminology, anatomy and physiology, principles of health, microbes and disease; CPR and First Aid and an overview of the national health and patient care system. Students will have an opportunity to "shadow" at local nursing homes and hospitals. Membership in HOSA is a required co-curricular part of this class. Dues are \$14.00.

Prerequisites: Teacher recommendation; Health Assistant I; CPR

Recommended courses: Chemistry CP, Geometry, Algebra II, Latin II

Emphasis is given to advance skill training for assisting doctors, nurses, and therapists with preparing the patient for examination, simple laboratory procedures, health tests, patient rehabilitation, and caring for the elderly. Students are prepared to assist in hospitals, nursing homes, clinics, and other health facilities in jobs such as orderly, sterile supply aide, physical therapy aide, veterinarian assistant, dental assistant, nursing assistant, EMT, laboratory assistant, and medical assistant. Clinical experience in hospitals, nursing homes or other health agencies is incorporated in the curriculum. Instruction covers advanced anatomy and physiology with emphasis on the elderly. Students who are in good standing, are program completers and have completed all skills and classwork will be eligible to take the Virginia Nurse Aide test. Membership in HOSA is a required co-curricular part of this class. Dues are \$13.00.

Technology: Drafting, Electronics & Robotics

Technology education assists students in developing an understanding of the role of technology in industry and in discovering and developing individual potential. This program provides students with competencies for occupational readiness for the future technician, technologist, engineer, or consumer. It provides a foundation for career preparation at the entry level or post-secondary level.

Introduction to Drafting and Technology

Grade: 9-12

1 credit

Requirement: The student is required to purchase a one subject notebook (that will stay in the class at all times) for note taking.

The concepts of accurate measurement, reading a rule, geometric constructions, and drawing to scale are introduced as the students construct 2-D multi-view and 3-D pictorial drawings using AutoCAD. In the second semester, students are introduced to architectural drafting, where they will produce architectural floor plans, elevations, sections, and plot plans using AutoCAD. Future engineers, architects, and technicians should strongly consider this course. The course also introduces students to basic electronics concepts, circuits and schematic symbols. Students will draw basic electronics circuit schematics and construct a basic electronics kit. It is a prerequisite for all other Technology Education courses.

Drafting Technology

Drafting Technology education assists students in developing an understanding of the role of design in technology, whether it be in building design/construction or in industrial or commercial design and engineering. This program provides students with competencies for occupational readiness for the future CAD technician, architect, engineer, product designer or DIY designer entrepreneur. It provides a foundation for career preparation at the entry level or post-secondary level. Upon completion, students will have the opportunity to test for national drafting certification.

Drafting I

Grade: 10-12

1 credit

Prerequisites: Basic Technical Drawing; teacher recommendation

Requirement: Lined (or Grid) spiral bound notebook for notes, drawings and news report article notes.

Students learn the principles of drafting and the design process through the use of CAD (Computer Aided Drafting). Experiences include architectural building plans and 3-D computer modeling, industrial design, rendering and model making. The focus will be on understanding and being able to clearly represent 3-D design in 2-D drawings. Students use industry-standard computer-aided drawing and design, established drafting standards and prepare models, from drawings, for presentation. Students will be required to use problem solving skills in class with a focus on individual initiative as well as being able to work as a team. They will develop and maintain a portfolio.

Drafting II: Architectural Emphasis

Grade: 11-12 1 credit

Prerequisites: Drafting I; teacher recommendation

Requirement: Lined (or Grid) spiral bound notebook for notes, drawings and news report article notes.

Students learn the principles of architecture and increase their understanding of the design process as it relates to the building construction trades. Students learn how to quickly formulate schematic design solutions to a problem. They will learn to self and group critique multiple concepts, develop the best design solution and create a set of basic construction documents using CAD (computer aided drafting). Students will receive an introduction to building codes and how to use them, as well as learning building material types and characteristics. Students will be required to use problem solving skills in class with a focus on individual initiative and team problem solving. They will maintain a portfolio starting with their Drafting I portfolio.

Drafting II: Mechanical Emphasis

Grade: 11-12 1 credit

Prerequisites: Drafting I; teacher recommendation

Requirement: Lined (or Grid) spiral bound notebook for notes, drawings and news report article notes.

Students learn the principles of mechanical design and engineering, and increase their understanding of the design process as it relates to production and engineering trades. Students learn how to quickly formulate schematic design solutions to a problem. They will learn to self and group critique multiple concepts, develop the best design solution and create a basic set of shop drawings using CAD (computer aided drafting). Students will create a fully dimensioned production design set of drawings, create a full materials purchase list as well as a materials cut list and develop a materials cost estimate. Students will then build a working model of the team design. Students will learn material types and characteristics as well as manufacturing process, to better understand what is needed for product production. Students will be required to use problem solving skills in class with a focus on individual initiative and team problem solving. They will maintain a portfolio adding to their Drafting I portfolio.

Drafting III: Architecture & Mechanical

Grade: 11-12 1 credit

Prerequisites: Either Drafting II: Architectural or Drafting II: Mechanical, teacher recommendation

Requirement: Lined (or Grid) spiral bound notebook for notes, drawings and news report article notes.

Students will use skills developed in previous years to work independently, using CAD, to develop design solutions and build on problem solving skills. The projects in this class will be student led and will greatly vary depending on the students' focus, whether in an architecture or mechanical focus. Students will develop their designs through the design process, research VA state and local building codes, research and select building materials and produce cost estimates. Students will present their proposals to a jury of teachers, administrators and area professionals. Individual initiative and problem solving skills are required for this class. Students will maintain a portfolio adding to their Drafting II portfolio.

Electronics Technology

The Electronics Technology program prepares the student for entry into a broad range of electrical/electronic careers or for continued education at universities, community colleges, and technical schools. The Electronics Technology course provides each student with a variety of learning methods such as computer aided instruction (CAI), circuit building exercises, team work and student projects. During the Electronics Technology course, students will build and understand many exciting systems such as audio amplifiers, remote control cars, autonomous vehicles and computer interfacing circuits. The electronics lab is also equipped with the industry popular Electronics Workbench CAD software package for drawing schematics, circuit board layouts and "virtual lab experiments". All of the electronics classes emphasize analytical problem-solving, hands-on experimentation and projects, teamwork, creative thinking, data collection/recording and oral and written communication skills.

The Electronics Technology course also prepares each student to become an industry recognized Certified Electronics Technician (CET). The title of CET is awarded to all students who pass the CET industry

certification exam. The CET exam will be administered to any Electronics Technology III student who wishes to take the exam. The title of CET is required for many government and industry electronics jobs.

Electronics Technology I

Grade: 9-10 1 credit

Prerequisites: Algebra I and Basic Technical Drawing

The first year of electronics is designed to provide students with an understanding of direct current (DC), alternating current (AC) and semiconductor, components, schematic symbols and circuits. Students are introduced to many electronic components such as resistors, capacitors, inductors, relays, diodes, transistors and integrated circuits (IC). Students conduct many electronic experiments combining the theory and practical applications learned. During laboratory exercises students construct many electronic circuits such as power supplies, audio amplifiers and DC motor control circuits.

Electronics Technology II

Grade: 10-11 1 credit

Prerequisites: Electronics I; Geometry; teacher recommendation

This course provides an in-depth study of advanced semi-conductor circuits and digital electronics. Advanced topics include digital logic circuits, programmable ICs, microcontroller programming, audio pre-amplifiers and audio power amplifiers. During the first semester, students will have an in depth study of digital electronics. Digital electronics is essentially the component level study of modern computer hardware. Students are introduced to the seven basic integrated circuit chips (gates) that are the foundation of *all* computer logic. Students design and construct many digital logic circuits from these chips. After mastering these basic logic gates, students then learn how these seven gates are used to construct computer RAM, ROM and microprocessors. During the second semester, students will study audio amplifiers and finish the year constructing an amplifier for an MP3 player.

Electronics Technology III

Grade: 11-12 1 credit

Prerequisites: Electronics II; teacher recommendation

Certified Electronics Technician (CET) exam cost: \$60

This course provides an in-depth study of advanced electronics topics and systems. Students will study advanced semiconductor circuits, optical semiconductors, AM and FM radio theory, microprocessor programming, microprocessor interfacing, copper cabling techniques, fiber optic cabling theory, surface mount soldering and robotics. Students are also given the opportunity to work on individual electronics projects of their choosing, providing instructor approval has been given. The Electronics III course also prepares the students to take the industry recognized NOCTI and Certified Electronics Technician (CET) exams. The title of CET is required for many government and industry electronics jobs. A \$60.00 examination fee is required to take the CET exam.

Electronics Technology IV/ Robotics

Grade: 12 1 credit

Prerequisites: Electronics III; Drafting II Mechanical emphasis; teacher recommendation

This course is designed to provide senior students with an opportunity to independently study computer programming languages for robotics control, microcontroller programming, advanced electronic circuits, DC motor control circuits and remote control circuits. The course also introduces students to basic welding concepts, metal fabrication techniques and mechanical design concepts to construct a robot platform. Students will implement the mechanical design and drafting concepts learned in the prerequisite drafting course to construct the mechanical robot platform. The course requires students to work independently or on a team to design and build an autonomous and/or remote controlled robotic vehicle. Students will formally present their concept, design and finished project to a technical panel for critique as typical in college engineering programs.

Auto Body Repair Technology

Auto Body repair and refinishing gives students the opportunity to restore and refurbish damaged vehicles. Using modern equipment and techniques, students return vehicles to original condition. Technical work and

hands-on shop experience provide the knowledge and skills needed to enter the collision repair field, a technical school, or a college/university for further training.

Introduction to Auto Body Repair

Grade: 9-10 ½ credit

Students sample the processes used in the repair of vehicles damaged from a collision. The class covers working safely with tools, equipment, paints, solvents, while making the connection with the future of the industry and career possibilities. Students are introduced to the technology used in the industry such as panel shaping techniques, basic welding, and identification of automobile components. Students must follow required safety rules and regulations.

Auto Body Repair I

Grade: 11 2 credits

Prerequisites: Introduction to Auto Body Repair; teacher recommendation

Through classroom instruction and shop experience, students gain knowledge and skills needed for collision repair of the modern automobile. This course emphasizes the organization of assembly and disassembly of different automobiles, using specialized tools and equipment, suspension work, various types of welding, and frame damage diagnosing. Students will be taught using I-CAR and ASE certified materials.

Auto Body Repair II

Grade: 12 2 credits

Prerequisites: Auto Body Repair I; teacher recommendation

Previous skills are refined through continued instruction and extensive emphasis will be placed on Automotive Refinishing. The process of removing finishes, preparing for a finish, applying finishes, and troubleshooting refinished areas, and mixing of paint with computerized systems to ensure a paint match will be addressed. Also the area of automotive compound and polish application will be instructed. Auto Body Repair II will be using the nationwide professional training sources of I-CAR and ASE programs.

Automotive Technology

The automobile industry has entered the high-tech age. This program offers the opportunity to develop a basic knowledge of automotive fundamentals and the skills necessary to inspect, diagnose, and repair modern motor vehicles. Through classroom presentations and hands-on lab experience, students are provided entry-level training on shop equipment and automobiles. Some students may become certified for the State Inspections Program offered through this class.

Introduction to Automotive Technology

Grade: 9-10 ½ credit

Students wanting to learn about the automotive repair industry get a basic understanding of the technology involved in a vehicle. This course introduces students to the use of automotive tools and equipment and to basic repairs and car care. Students preparing to obtain drivers' licenses benefit from this course.

Automotive Technology I

Grade: 11 2 credits

Prerequisite: Introduction to Automotive Technology

This course includes a hands-on program of instruction for learning the theory of internal combustion engines. Students learn tool use and identification, identification of engine parts, functions of lubrication systems, and engine tune-up procedures. Units of instruction also covered are fuels, carburetion, measurement of parts, engine assembly and disassembly techniques, daily service operations, and engine maintenance. Safety precautions and the development of safe work habits are emphasized throughout the program.

Automotive Technology II

Grade: 12 2 credits

Prerequisite: Automotive Technology I

This advanced program continues the development of skills begun in Automotive Technology I. More intensive hands-on work is included to develop good work habits and to develop the skills and knowledge

required to secure a job in the automotive repair field. Seniors may be eligible to participate in on-the-job training during the second semester of this course.

Building Trades

A variety of employment opportunities are available to individuals who successfully complete this program. Instruction includes methods and techniques in building construction. Students with allergies (dust, paint, etc.) should consult a physician prior to enrollment.

Introduction to Building Trades

Grade: 9-10 ½ credit

This course is designed to introduce students to careers in building construction, including carpentry and masonry. Students learn the proper use of hand tools and power equipment. Basic building principles are learned through individual/group building projects.

Building Trades I

Grade: 11 2 credits

Prerequisites: Introduction to Building Trades; Basic Technical Drawing or concurrent enrollment therein

This course gives students an opportunity to develop entry-level skills in block and bricklaying, carpentry, blueprint reading and material estimating.

Building Trades II

Grade: 12 2 credits

Prerequisite: Building Trades I

Development of entry-level skills continues with the construction of storage sheds and small single-family dwellings that includes the need for plumbing, finish carpentry, and electrical wiring skills.

Heating, Ventilation and Air Conditioning

HVAC I and II

Grade: 11-12 1 credit

Prerequisites: Counselor recommendation; a good math, physical science, and technical drawing background is very helpful.

Mechanical aptitude, interest in electricity, and good physical condition are desired traits for entering this field. Note: HVAC is taught in Buena Vista. Transportation after first lunch is provided by Rockbridge County Schools.

This course is designed to provide students with knowledge and skills related to the manufacture, installation and servicing of air conditioning, heating and refrigeration equipment and systems with particular emphasis on manufacturing. Major units of study include safety rules, work ethic, team concepts and problem-solving; interpersonal skills, oral and written technical communications, and business protocol; history and theory; basic electricity and electronics; cooling and heating (gas, oil, electric and heat pumps) principles and systems; matter and molecules; basic refrigeration; air pressures, air handling equipment and air system balancing; blueprint reading, basic plumbing; welding, brazing and soldering; pneumatics and hydraulics; pumps, compressors and electric motors; system controls; metal working basics; manufacturing technology; energy management systems; computer technology; and system troubleshooting and repair. During the second semester development of mechanical and electrical skills pertaining to the HVAC trade/industry continues. Particular emphasis is placed on pneumatics, electronics and problem-solving techniques. Large commercial and residential heating and cooling equipment is studied including commercial refrigeration and cold storage equipment.

HVAC III

Grade: 11-12 1 credit

Prerequisites: HVAC I and II; counselor and instructor recommendations

The opportunity for cooperative work experience in HVAC is encouraged, as well as study in the technical areas of: Industrial Motors and Controls and PLC (Programmable Logic Controllers). Options for certification testing will be available in EPA and in HVAC Excellence.

Additional Opportunity

Independent Study

Grade: 11-12 0.5 cr./semester

Prerequisite: Approval by counselor, Independent Study Coordinator and principal

Independent Study provides the opportunity for students to study a topic of intense personal interest. At the end of the school year or two weeks prior to the end of a semester, students must submit a proposal to be considered for independent study for the following semester. In the proposal, students state objectives, specific problem definition, methods of learning, end product, and criteria for evaluation. Included in the proposal is a commitment from an advising mentor, with a plan for meeting with the student for advising and consultation during the independent study semester. The course is pass/fail, and upon successful completion, ½ credit per semester is awarded. A final presentation at the end of the semester is required. Students may submit a proposal for further study for the second semester.

Policies & Procedures

Quick Reference

The Guidance Department

Phone: (540) 463-6150

Deborah Jarrett (Class of 2012)
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Program Planning

In selecting subjects, the students should recognize the fact that employment and post-secondary admission opportunities are highly competitive. The quality of the subjects studied and the quality of academic performance are crucial factors in decisions made by employers and college admissions personnel. Therefore, it is to a student's advantage to select subjects which present a challenge and which serve as a recommendation for them.

Following Registration Day, guidance counselors have individual conferences with each student to answer questions and assist him/her in making final choices of subjects for the next school year. Counselors explore carefully with each of their students what courses and SOL tests (verified credits) are needed for graduation for all diplomas, for their career paths, for postsecondary admission, for employment, and the courses that are requested by the NCAA for athletic eligibility at Division I colleges. Counselors also discuss students' academic progress in the past, their aptitudes, their interests, and their plans for after graduation so that course selection can ensure success and interest in school and can satisfy future goals. Placement into particular classes is carefully determined by consideration of current teachers' recommendations and, in some cases, diagnostic test results.

Students should give very serious consideration to registration for school subjects to be taken each year. We feel strongly that students must take advantage of the educational opportunities they have. We encourage students to make choices of elective courses thoughtfully because completion of at least one program will be important and beneficial in reaching future goals. If a student needs to make a change in his/her schedule, it must be done within the first three days of school. After that time courses will not be dropped or changed without a parent-teacher conference. Seniors who are meeting graduation requirements are still required to be in school for a minimum of five periods.

Grading Scale/Grade Point Average/Class Rank

Class rank and grade point average are cumulative and are calculated on the basis of all final year grades for courses taken in grades 9-12, including summer school. Students are ranked at the end of each year beginning with the ninth grade. The students having the highest and next highest grade point average at the time of graduation and being in attendance at RCHS for three out of the four last semesters are the valedictorian and salutatorian, respectively. The valedictorian and salutatorian must earn an Advanced Studies Diploma.

RCHS has a 4.0 quality point grading scale. Quality points are assigned to numerical values for the purpose of determining a numerical average. Quality points are assigned to grades earned in all courses for which credit is received as follows:

Grading Scale/Grade Point Average/Class Rank (cont.)

At Rockbridge County High School, certain courses are weighted to reflect course difficulty for the purpose of establishing an equitable and fair class rank. Thus, honors/advanced placement courses are weighted by applying an additional 0.5 quality point to the value assigned to the semester grade (except in the case of an "F".) The grade weighting policy for Rockbridge County High School is intended to provide an incentive for students to accept the challenge of advanced course work. All other courses are included in class ranking on an equal basis.

Courses already taken and passed may be repeated. The highest earned grade appears on the student's transcript.

High School Credit Earned in Middle School

High school courses that are taught at the middle school are the same as courses taught at the high school and carry high school credit. For example, Algebra I (not pre-Algebra or Algebra I Part I), a foreign language, Keyboarding Secondary and/or World Geography will count toward fulfilling the credits needed for graduation. The highest grades received in these courses are included on the transcript and in the student's GPA.

Students may choose to have a middle school course removed from the transcript. Any associated SOL credit earned is forfeited. If, however, the course is repeated in high school and is passed, the SOL credit is reinstated. **Students are required to inform the guidance office of this decision by the end of the first nine weeks of the junior year.**

Grade Level Classification and Grading Policy

A student's grade level classification is dependent upon the number of courses which he/she has satisfactorily completed. Credit is given for each course for which a grade of "70" or higher is earned. A student may not receive credit twice for passing the same course. The minimum credit requirements for attaining each grade is as follows:

- 10th - 5 credits
- 11th - 10 credits
- 12th - 15 credits

Advanced Programs of Study/College Credit

Rockbridge County High School offers many courses which are accelerated and more in-depth than those of their grade-level counterparts. These advanced courses prepare students for the challenging environment of a four-year college. A significant amount of work outside of the classroom is expected. Some of these courses allow students to earn college credit in addition to high school credit.

Admission into accelerated courses is based on academic performance, teacher recommendation, and additional specific requirements determined by each department. See the course description for further information on eligibility for advanced courses.

Juniors and seniors may earn college credit in two ways: 1) credit awarded by colleges based upon score(s) earned on an advanced placement exam(s); 2) credit awarded by colleges based upon a student completing a dual enrollment class(es) with at least a "C." The granting of AP or dual enrollment credit is solely at the discretion of the college. Dual enrollment offerings each year will be dependent upon availability of instructors.

The following courses are offered this year for **Advanced Placement**:

Biology AP	Latin IV or V AP	US History AP
Calculus AP	Physics AP	US Government AP
Chemistry AP	Spanish V AP	World History AP
English 12 AP	Statistics AP	

Students who take an AP course must take the AP test unless they are also taking the class for Dual Enrollment. Be advised, though, that not all AP courses are offered for Dual Enrollment. Any student may take any AP test, even if they are not taking an AP course. Financial assistance to take these tests is available to low-income students and those who take multiple tests.

The following courses are offered this year as **Honors/PreAP**:

Algebra I H	English 10 PreAP	Human Anatomy & Physiology H
Algebra II H	English 11 PreAP	Pre Calculus H
Biology H	French IV, V H	Spanish IV H
Chemistry H	Geometry H	Latin IV or V H
Economics H		

The following courses are offered this year for **dual enrollment** (pending teacher qualifications):

Biology AP	Economics H	Statistics AP
Calculus AP	English 12 AP	World History AP
Chemistry AP	Latin IV, V AP, VI	Intro to Calculus
Culinary Technology II	Physics AP	

Diploma Seals

Board of Education Seal

Students who meet the graduation requirements for a Standard, Standard Technical, Advanced Studies or Advanced Technical Diploma with a final grade average of "A" (3.75) or better at the end of their senior year will receive a Board of Education Seal on the diploma.

Governor's Seal

Students who meet the minimum requirements for the Advanced Studies Diploma or Advanced Technical must graduate with an average grade of "B" (3.0) or better and successfully complete college-level coursework that will earn the student at least nine transferable college credits in Advanced Placement or Dual Enrollment in order to earn the Governor's Seal.

Board of Education Career & Technical Education Seal

This seal will be awarded to students who earn either a Standard, Standard Technical, Advanced Studies or Advanced Technical Diploma, complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and either (a) maintain a "B" or better average in those courses, (b) pass an examination in a career and technical education concentration or specialization that confers certification from a recognized industry, trade, or professional association, or (c) acquire a professional license in a career and technical education field from the Commonwealth of Virginia.

Advanced Mathematics and Technology Seal

This seal will be awarded to students who earn either a Standard, Standard Technical, Advanced Studies or Advanced Technical Diploma, satisfy all of the mathematics requirements for the Advanced Studies Diploma with a "B" average or better in those math courses and either (a) pass an examination in a career and technical education field that confers certification from a recognized industry or trade or professional association, (b) acquire a professional license in a career and technical education field from the Commonwealth of Virginia or (c) pass an examination approved by the Board that confers college-level credit in a technology area.

National Honor Society

The National Honor Society is an honorary organization devoted to service to the school and community. Students are selected for the society based upon **scholarship, character, leadership, and service**. Students may first be considered for induction during the spring of the sophomore year. Scholarship requirements include a cumulative grade point average of 3.00. The criterion of character includes such intangibles as reliability and honesty. Leadership implies the expectation that students will exert a wholesome influence on the school. Students must demonstrate service to the school and community through opportunities designed to help others.

Students who are striving to be selected for induction into the National Honor Society must make sure that they can demonstrate achievement in all four areas: scholarship, character, leadership, and service. Faculty members are available to guide students through the application process.

Honor Roll

There is an Honor Roll for each grading period. All students who have a “3.0” grade point average or higher for the grading period will be on the Honor Roll, unless they have an incomplete grade. Students must be taking at least four courses to be on the Honor Roll.

Summer School

Summer School classes are repeat classes only, except for PE 9 and PE 10. Those classes are offered as new courses. Students will only be allowed to enroll in Summer School PE if they are planning to take 4 core academic classes and a foreign language. Opportunities will be provided for students needing credit recovery and/or SOL remediation.

Virginia High School League Rules for Athletics, Forensics and One Act Play Eligibility

28-4-1 *Scholarship Rule:* The student shall be currently enrolled in not fewer than five subjects, or their equivalent, offered for credit and which may be used for graduation, and have passed five subjects, or their equivalent, offered for credit which may be used for graduation the immediately preceding semester for schools that certify credit on a semester basis. You may not count a repeat class as part of the five if you have previously received credit for the class.

28-4-2 *Age Rule:* The student shall not have reached the age of 19 on or before the first day of August of the school year in which he/she wishes to compete.

NCAA Academic Eligibility and Approved Courses

If you are a high school athlete and you wish to participate in athletics as a freshman in college, you must apply to the NCAA Clearinghouse before you graduate from Rockbridge County High School (the fall of your senior year is preferred). To qualify, you will need to:

1. graduate from high school;
2. successfully complete 14 core courses ; and
have a core-course grade-point average (based on a 4.0 scale) and a combined score on the SAT or a sum score on the ACT based on the core GPA/test score index.

For specific information, please see your counselor, the athletic director, or visit www.ncaa.org for the most up-to-date information on NCAA eligibility.

Off- Site Courses for Credits

While we are justifiably proud of our far-reaching program offerings, we are also aware that there are an increasing number of attractive opportunities for students to earn credits other than through courses taught on our campus or at other accredited high schools in the U.S. Within our own system, for example, there is an Independent Study opportunity. Outside our system, there are more and more on-line courses, home instruction courses, correspondence courses, and colleges offering credits through special programs. To protect both the students and the integrity of our system, we have put some protections in place of which students need to be aware.

Approval

Students wishing to receive a credit for such an off-site course must have the course, teacher, methodology, and credit-granting institution approved by the RCHS administration prior to enrolling in the course by completing an application.

We strongly urge any student who is considering an outside credit to review the specifics of the course and to discuss the details of the course with his or her guidance counselor and appropriate department chair. SOL tests must be taken for SOL-driven courses. Students considering applying to colleges are advised to contact

college officials to determine how the colleges view the particular course or course provider under consideration.

Grades

Students who take any course that is not listed in the *Program of Studies* will receive a "Pass" (P) or "Fail" (F) on their transcripts. No other grade designation will be used. Courses taken off-site will be indicated as such on the transcript.

Number of Credits

Students who wish to be ranked in their class may not have more than four off-site courses on their transcripts.

Home Instruction

Students who have been instructed at home who wish to be enrolled in the Rockbridge County Public Schools will be placed at the appropriate grade level as determined by school administrators. The following standards will be used to determine credits and grade placement at the high school level:

- 1) Students pursuing a RCHS diploma must, in advance of requesting credit from home instruction, do the following:
 - Be qualified for home instruction by the Superintendent,
 - Pre-register for classes with a guidance counselor,
 - Have a schedule approved by school officials.
- 2) The majority of credits earned for graduation must be from courses taken and passed at RCHS. The following classes must be taken at RCHS:

English 11	English 12	U.S. History
U.S. Government	2 Math courses	2 Laboratory Science

All established class prerequisites must be met before a student may enroll in a class.

- 3) A grade of pass (P) will be given for credits earned through home instruction and will not be used in computing grade point averages. Students who wish to count credits toward graduation through the home schooling process will not be included in the class rank.
- 4) Availability of classes to students not pursuing a high school diploma can be restricted when enrollments exceed 75% of established capacities.

SOL Requirements for Transfer Student

Standard Diploma

Grade upon enrolling	Required SOL Verified Credits
9th grade	6 Verified Credits (2 English, 1 Math, 1 Social Studies, 1 Science + 1 Other)
Beg. 10th	6 Verified Credits (2 English, 1 Math, 1 Social Studies, 1 Science + 1 Other)
During 10th	4 Verified Credits (1 English, 1 Math, 1 Social Studies, 1 Science)
Beg. 11th	4 Verified Credits (1 English, 1 Math, 1 Social Studies, 1 Science)
During 11th	2 Verified Credits (1 English + 1 Other)
Beg. 12th	2 Verified Credits (1 English + 1 Other)
During 12th	Student must be given every opportunity to earn a diploma. If not possible, arrange to have previous school award diploma or seek waiver of verified credit requirements from VDOE.

Beginning = within first 20 hours of instruction per course.

During = after first 20 hours of instruction per course.

Advanced Studies Diploma

Grade upon enrolling	Required SOL Verified Credits
9th grade	9 Verified Credits (2 English, 2 Math, 2 Social Studies, 2 Science + 1 Other)
Beg. 10th	9 Verified Credits (2 English, 2 Math, 2 Social Studies, 2 Science + 1 Other)
During 10th	6 Verified Credits (2 English, 1 Math, 1 Social Studies, 1 Science + 1 Other)
Beg. 11th	6 Verified Credits (2 English, 1 Math, 1 Social Studies, 1 Science + 1 Other)
During 11th	4 Verified Credits (1 English + 3 Others)
Beg. 12th	4 Verified Credits (1 English + 3 Others)
During 12th	Student must be given every opportunity to earn a diploma. If not possible, arrange to have previous school award diploma or seek waiver of verified credit requirements from VDOE.

Beginning = within first 20 hours of instruction per course.

During = after first 20 hours of instruction per course.

8 VAC 20-131-60.E. "Students transferring above the tenth grade from schools or other education programs that do not require or give credit for physical education shall not be required to take these courses to meet graduation requirements."

Declaration of Non-Discrimination

Rockbridge County Schools offer all programs free from discrimination on the basis of race, color, national origin, religion, age, disability or gender.

Grievance procedures for Title IX and section 504 are published in the Rockbridge County Policy Manual located in the public library, in each school and the school board office.

Specific complaints under Title IX need to be sent to the assistant superintendent, and Section 504 complaints regarding discrimination need to be sent to the superintendent's office.

Both can be reached at the school board office, 1972 Big Spring Drive, Lexington, VA 24450 or by calling 463-7386.