



SPOTSYLVANIA  
COUNTY PUBLIC SCHOOLS

# Course Pathways

## For Middle & High School Students

### 2023-2024



# SCHOOL LOCATIONS



**SPOTSYLVANIA**  
COUNTY PUBLIC SCHOOLS

## ELEMENTARY

- 1 Battlefield
- 2 Berkeley
- 3 Brock Road
- 4 Cedar Forest
- 5 Chancellor
- 6 Courthouse Road
- 7 Courtland
- 8 Harrison Road
- 9 Livingston
- 10 Parkside
- 11 Riverview
- 12 Robert E. Lee
- 13 Salem
- 14 Smith Station
- 15 Spotswood
- 16 Lee Hill
- 17 Wilderness

## MIDDLE

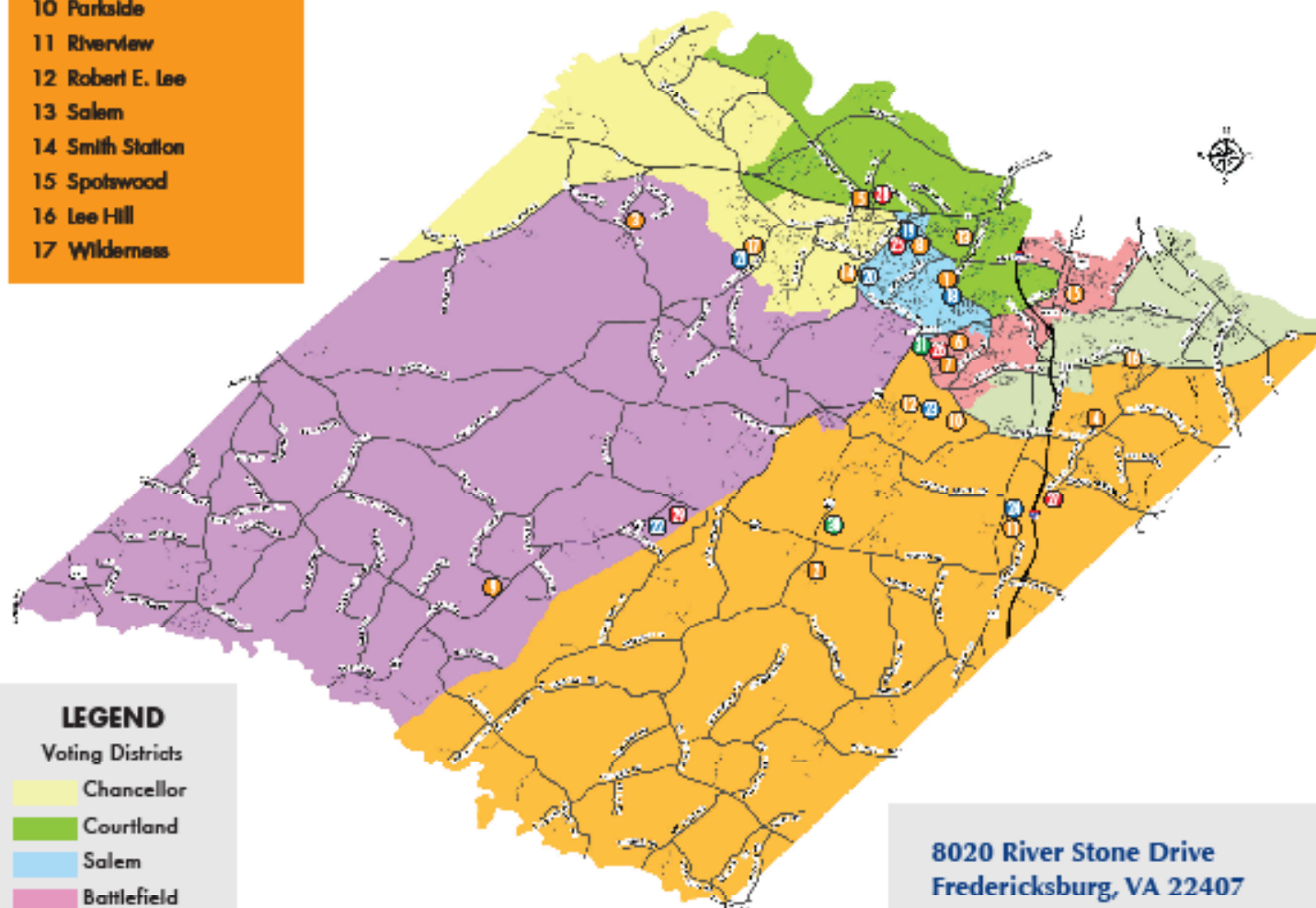
- 18 Battlefield
- 19 Chancellor
- 20 Freedom
- 21 Ni River
- 22 Post Oak
- 23 Spotsylvania
- 24 Thornburg

## HIGH

- 25 Chancellor
- 26 Courtland
- 27 Massaponax
- 28 Riverbend
- 29 Spotsylvania

## CENTERS

- 30 John J. Wright Educational & Cultural Center
- 31 Spotsylvania Career & Technical Center



## LEGEND

Voting Districts

- Chancellor
- Courtland
- Salem
- Battlefield
- Lee Hill
- Berkeley
- Livingston

8020 River Stone Drive  
Fredericksburg, VA 22407

P 540.834.2500  
F 540.834.2550

[www.spotsylvania.k12.va.us](http://www.spotsylvania.k12.va.us)

Mark B. Taylor  
Superintendent

Kelly Guempel  
Deputy Superintendent -  
Chief Academic Officer

Keith Wolfe  
Executive Director of  
Secondary Education  
& Leadership

Allison Langridge  
Executive Director of  
Student Support Services

# Directory of Middle & High Schools

## Middle Schools

BATTLEFIELD  
11120 Leavells Road  
Fredericksburg, VA 22407  
540.786.4400  
Principal – Mike Brown

CHANCELLOR  
6320 Harrison Road  
Fredericksburg, VA 22407  
540.786.8099  
Principal – Dr. Deborah Frazier

FREEDOM  
7315 Smith Station Road  
Fredericksburg, VA 22407  
540.548.1030  
Principal – Dr. Eric Wright

NI RIVER  
11632 Catharpin Road  
Spotsylvania, VA 22553  
540.785.3990  
Principal – Brian Bartoszek

POST OAK  
6959 Courthouse Road  
Spotsylvania, VA 22551  
540.582.7517  
Principal – Harold Pellegreen

SPOTSYLVANIA  
8801 Courthouse Road  
Spotsylvania, VA 22553  
540.582.6341  
Principal – Paul Workman

THORNBURG  
6929 N. Roxbury Mill Road  
Spotsylvania, VA 22551  
540.582.7600  
Principal – Julie Hamlett

## High Schools

CHANCELLOR  
6300 Harrison Road  
Fredericksburg, VA 22407  
540.786.2606  
Principal – Dr. Abe Jeffers

COURTLAND  
6701 Smith Station Road  
Spotsylvania, VA 22553  
540.898.4445  
Principal – Cliff Conway

MASSAPONAX  
8201 Jefferson Davis Highway  
Fredericksburg, VA 22407  
540.710.0419  
Principal – Dr. Jay Lancaster

RIVERBEND  
12301 Spotswood Furnace Road  
Fredericksburg, VA 22407  
540.548.4051  
Principal – Dr. Troy Wright

SPOTSYLVANIA  
6975 Courthouse Road  
Spotsylvania, VA 22551  
540.582.3882  
Principal – Rob Marchetti

## Centers

JOHN J. WRIGHT EDUCATIONAL  
& CULTURAL CENTER  
7565 Courthouse Road  
Spotsylvania, VA 22551  
540.582.7583  
Principal – Ms. Terecia Gill

SPOTSYLVANIA CAREER  
& TECHNICAL CENTER  
6713 Smith Station Road  
Spotsylvania, VA 22553  
540.898.2655  
Principal – Mr. Reitha Abed

# Table of Contents

## Directory of Middle & High Schools 3

### Introduction 6

Mission, Vision, & Core Values	
Developing Your Educational Plan	
Course Availability	
Statement of Non-Discrimination	

### Schools and Pathways 7

Agriculture, Food, & Natural Resources	8
Architecture and Construction	10
Arts, Audio/Video Tech, and Communications	12
Business Management and Administration/Finance	14
Education and Training/ Human Services	16
Government & Public Administration/Law, Public Safety, Corrections, and Security	18
Health Sciences	20
Hospitality & Tourism, Marketing	22
Information Technology & STEM	24
Manufacturing, Transportation, Distribution, & Logistics	26
GCC Early College Pathway	28

### Middle School Information 30

6th Grade Course Descriptions	31
7th Grade Course Descriptions	34
8th Grade Course Descriptions	37

### High School Information 40

Requirements for a Standard Diploma	40
Requirements for an Advanced Studies Diploma	41
Academic Recognition	43
Graduation Seals	43

## High School Course Selection Information 44

School Counseling Program and Services	44
Library Services	44
The Commonwealth Governor's School	44
Early College Scholars	45
Advanced Placement Program	45
Advanced Placement Capstone	46
Credit Recovery	46
College Credit for Advanced Placement Classes	46
CLEP: College Level Examination Program	46
IB Diploma Programme (DP)	46
College Credit through Dual Enrollment Courses	46
Early College Pathway through Germanna Community College	47
Course Load	47
Grades & Promotion	47
High School Subjects Taken in Middle School	47
Schedule Adjustments	47
Dropping Courses	48
Auditing a Course	48
Transfer Credits:	48
Earning Credit for Courses Taken	48
Approved Online & Correspondence Programs	48
Accredited Schools & Homeschooling	48
Non-Accredited Schools & Non-Accredited Homeschooling	49
National Collegiate Athletic Association Eligibility Requirements	49
Grade Point Average & Class Rank	49
Services for Gifted Students	50
Special Education Services	50
Summer School	50



**High School Course Offerings 50**

English	50
Fine Arts	50
World Languages	51
Health & Physical Education	51
Mathematics	51
Science	52
History & Social Science	52
Career & Technical Education	52
Agriculture	52
Business & IT	52
Education & Training	52
Family & Consumer Science	52
Marketing	52
Technology	52
Trade & Industry	52
Construction/Mechanical	52
Information Technology	53
Mass Communications	53
Transportation	53
Personal Services	53
Drafting, Design & CAD	53
Metal Trades	53
Family & Consumer Science	53
Health, Medical & Protective Services	53
Additional Opportunities	53

**High School Course Descriptions 54**

English	54
Fine Arts	57
Dance	59
Theater	59
Band	60
Orchestra	61
Chorus	62
World Languages	63
ESOL	67
Health & Physical Education	68
Mathematics	69
Science	72
History & Social Science	75
Career & Technical Education	78
Agriculture	78
Business & Info Technology	80
Education & Training	82
Family & Consumer Sciences	82
Marketing	83
Technology Education	84
Trade & Industry Courses	85
Information Technologies	86
Mass Communications	87
Transportation	87
Personal Services	88
Drafting, Design, & CAD	88
Welding	89
Family & Consumer Sciences	89
Health & Medical	91
Additional Opportunities	92

**Program Planning Guide 94****Notes 95**



# Introduction

## Developing Your Educational Plan

Greetings!

As our vision statement indicates, we want students to come to school excited about learning. These pathways should be considered suggestions for consideration, not a prescribed sequence that must be followed. If you are passionate about music and technology, take both types of courses! Pursue clubs and activities that interest you. Explore what intrigues you as you develop the skills you need for your future.

We created this guide to help students and families plan meaningfully for middle and high school. The career pathways pages that follow describe coursework that can lead to various careers in our community. These will be useful to you as you choose courses and plan your future. The pathways suggest courses that align with specific career interests. Please read, learn, ask questions, and plan wisely.

## Course Availability

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

## Statement of Non-Discrimination

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

## Our Mission

Together, we prepare our students for their future.

## Our Vision

We inspire and empower each student to develop essential skills and access multiple pathways in pursuit of their dreams. Every day, each child yearns to come to school, excited about learning.

## Our Core Values

- Quality
- Equity
- Innovation
- Inclusivity
- Collaboration
- Citizenship
- Stewardship

# Career Pathways

For each career pathway, a summary of that cluster is provided along with information about projected job growth, certifications/credentials, student organizations, postsecondary options at Germanna Community College, and a sampling of what is offered at four-year state colleges/universities.

In the future careers charts, the regional projection growth is the Local Workforce Investment Area XIII, which consists of the following counties/cities: Spotsylvania, Stafford, Fredericksburg, King William, King George, Essex, Richmond, Westmoreland, Northumberland, King and Queen, Caroline, Accomack, and Middlesex. These projections are from 2016 to 2026.

Each career pathway offers a variety of different certifications or credentials. A credential/certification as defined by the Virginia Department of Education:

- **State-issued professional license** - required for entry into a specific occupation as determined by a Virginia state licensing agency (Licensed Practical Nurse (LPN), Cosmetology);
- **Full industry certification** - from a recognized industry, trade, or professional association validating essential skills of a particular occupation (A+ CompTIA, Microsoft Certified Professional (MCP));
- **Pathway industry certification** - which may consist of entry-level exams as a component of a suite of exams in an industry certification program leading toward full certification (Automotive Service Excellence, (ASE), Microsoft Office Specialist (MOS); or
- **Occupational competency assessment** - a national standardized assessment of skills/knowledge in a specific career and/or technical area, (NOCTI).



# Agriculture, Food, and Natural Resources Pathways

## Summary of Pathway

Do you have a love of science, environment, and/or animals? Learners who pursue Animal Science will be prepared for careers that involve improving the quality and safety of food, cultivating and preserving our natural resources, and caring for animals. Learners need a solid background in math, science, communications, and technical skills.

The Plant Science pathway encourages students to study the production of plants while developing an understanding of one of the largest employment sectors. Learners will receive hands-on instruction in floral design and in greenhouse managements. The major focus of the pathway is to expose students to the world of agriculture, plant science, and career options.

This area is projected to grow by 19% by 2026. Classes that help students advance in this area are Geometry, Biology, and Anatomy and Physiology. Students will also have the opportunity to apply for the Veterinary Science program at the Career and Tech Center.

## Certifications Earned

Animal Systems Assessment; Canine Care and Training Program-Level 1 Certification Examination; Customer Service Specialist (CSS) Examination; Pet Sitters Certification Examination; Small Animal Science and Technology Assessment; Workplace Readiness Skills for the Commonwealth Examination; Commercial Pesticide Applicator Certification Examination; Floriculture Assessment; Floriculture: Greenhouse Assessment; Greenhouse Operators Certification Examination; Horticulture-Landscaping Assessment; Plant Science Certification Examination

## Postsecondary Options at Germanna Community College

- Associates of Arts and Sciences in Science
- Applied Horticulture/Horticulture Operations
- Associates of Applied Science in Mining Technology, Natural Resources, and Conservation

## Sample Postsecondary Options at a 4-year University

- Agricultural Science Major
- Pre-Veterinary Science Medicine Major
- Wildlife Conservation
- Marine Biology
- Landscape Design
- Floral Design
- Forestry and Wildlife
- Environmental Science

## FUTURE CAREER GROWTH PROJECTIONS

(Projections based on Regional Statistics)

Veterinary Assistants and Laboratory Animal Caretakers - 27%

Veterinary Technologists and Technicians - 29%

Recreation Workers - 13%

Landscaping - 14%

Occupational Health and Safety Specialists - 7%

Farming, Fishing & Forestry Workers - 11%

Veterinarians - 25%

## Student Organizations

- FFA



# Agriculture, Food, and Natural Resources Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Language & Composition	AP English Literature & Composition
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus/ Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses		Small Animal Care		Veterinary Science I (DE)	Veterinary Science II (DE)
		Intro to Animal Science	Agri-Business	Adv. Agri-Business	
			Horticulture Production	Greenhouse Operations	Agriculture Cooperative Education



# Architecture and Construction

## Summary of Pathway

Do you want to design, build, or manage the structures where we live, work, and play? Learners who pursue this career pathway will help prepare the next generation of construction trades workforce and architects. This area is projected to grow by 12%, and this is an area of growing need. Students with this training will be in high demand for entry-level positions. There will be opportunity for internships and registered apprenticeships positions. Courses that help prepare students for this pathway are Technology Education classes offered at the high schools. Students will also have the opportunity to apply for HVAC-R, Carpentry, Electricity, and Drafting at the Spotsylvania Career and Tech Center.

## Certifications Earned

EPA 608 - Refrigerant Handling Certification

OSHA 10 - Occupational Safety & Health Administration 10 Hour Card

International Code Council Building Trades Certification

## Postsecondary Options from Spotsylvania Career & Technical Center

- Registered Apprenticeship Programs of Electricity, Plumbing, and HVAC-R

## Postsecondary Options at Germanna Community College

- Registered Apprenticeship Programs in a variety of trades include: Carpentry, CNC Milling Operator, Electrical, HVAC, Industrial Maintenance, Plumbing, and Open Pit Miner

## Postsecondary Options at a 4-year University

- Bachelor of Fine Arts - Architectural Design
- Bachelor of Science - Architecture
- Bachelor of Urban and Environmental Planning

*\*\*Construction Trades do not require a 4-year Bachelor's Degree.*



## FUTURE CAREER GROWTH PROJECTIONS

(Projections based on Regional Statistics)

Construction Managers - 7%

Cost Estimators - 9%

Brick & Block Masons - 13%  
Carpenters - 6%

Electricians - 11%

Electrical Power-Line  
Installers and Repairers - 10%

Architectural and  
Engineering Managers - 10%

Heating, Air Conditioning,  
and Refrigeration Mechanics  
and Installers - 19%

Construction and Building  
Inspectors - 12%

## Student Organizations

- SkillsUSA
- TSA
- National Association of Home Builders - Student Chapter

# Architecture and Construction Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Lit./Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus/ Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses	Tech Systems	Manufacturing Tech	Construction Tech	Carpentry, Electricity, or HVAC I	Carpentry, Electricity, or HVAC II
		Engineering Exploration	Engineering Studies	Architectural Drafting I or Mechanical Drafting I	Architectural Drafting II or Mechanical Drafting II
		Drafting I	Architectural Drafting II or Mechanical Drafting II	Architectural Drafting II or Mechanical Drafting II	

# Arts, Audio/Video Tech, and Communications

## Summary of Pathway

Are you creative? The Arts Pathway helps students showcase the creative expression of their ideas through a wide variety of imaginative mediums, designs, and performances. The Kennedy Center Arts Edge research shows that the arts play a critical role in quality education by: fostering creativity and innovative thinking; helping students communicate a variety of messages; improving student achievement in other disciplines; advancing problem-solving and cognitive skills; enhancing cultural understanding; and increasing attendance and graduation rates. Learners who pursue the music, theatre, and visual arts pathway will be involved in effectively communicating in both oral and written form. In addition, the creative aspects of this cluster are rapidly merging with technological skills, making it even more challenging. Preparation for careers in this cluster through high school allows students to gain experience in the performing and visual arts as well as in the academic foundations. This area is projected to grow by 10% by 2026. Students will have the opportunity to take visual and performing arts classes within their own high schools. Students can also take Video Production courses at the Spotsylvania Career and Tech Center.

## Postsecondary Options at Germanna Community College

- Associate of Arts and Science - General Studies
- Associate of Arts and Science - Liberal Studies
- Certificate in Fine Arts
- Certificate in Graphic Communications

## Sample Postsecondary Options at a 4-year University

- Bachelor of Arts - Art History, Studio Art, Dance, Digital Video and Cinema, Converged Media, Communication Studies
- Bachelor of Fine Arts - Interior Design, Art, Dance and Choreography, Fashion, Graphic Design, Theatre
- Bachelor of Music - Composition, Music Industry, Performance



## FUTURE CAREER GROWTH PROJECTIONS

(Projections based on Regional Statistics)

- Graphic Designer - 12%
- Actors - 10%
- Music Directors - 8%
- Composers - 8%
- Art Directors - 13%
- Fine Artists (Painters, Sculptors, Illustrator) - 4%
- Film & Video Editors - 16%
- Photographers - 14%
- Audio & Video Technicians - 13%
- Musicians & Singers - 11%
- Set Designers - 9%
- Art Directors - 13%

## Student Organizations

- Art Club
- Drama Club
- Marching Band
- Spring Musical
- Extracurricular productions and events
- VHSL Competitions: Fall One Act Play, Forensics, and Film Festival



# Arts, Audio/Video Tech, and Communications Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Literature/Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus/ Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses	Art Grade 6/Art Grade 7/ Art Grade 8	Art I	Art II	Art III, Art Seminar	Art IV, AP Studio Art
	Hands On Music	Theatre Arts I	Theatre Arts II	Theatre Arts III	Theatre Arts IV
	Theatre Arts		Technical Theatre	Theatre Seminar (CHHS & MHS) / IB Theatre Arts	
	Band	Concert Performance Band/ Symphonic Band/ Performance Jazz Band			
	Chorus	Chorus/ Select Chorus/ Concert Chorus/ Vocal Ensemble/ Contemporary Ensemble			
	Orchestra	Basic Strings/ Concert Performance Orchestra/ Symphonic Performance Orchestra			
			Music Theory	AP Music Theory/ IB Music	
				Sculpture I	Sculpture II
				Dance I (CoHS)	Dance II (CoHS)
				Intro. To Music Technology (SHS)	Intro. To Music Technology (SHS)
		Intro to Video Production	Advanced Video Production		

# Business Management and Administration/Finance

## Summary of Pathway

Do you want to be a Chief Executive Officer (CEO) or Chief Financial Officer (CFO)? Do you want to run an organization? This pathway is a diverse field that incorporates many types of management positions. From major corporations to independent businesses, every operation needs skilled administrators in order to succeed. Students will learn how to be motivated and organized in order to thrive in business where environments are often high-powered. Learning how to deal with stress will help students keep their cool — and keep their business in the black. This area is expected to grow by 8% in Business Management and Administration and by 10% in Finance. Courses that help to prepare students for this pathway include all business courses and marketing courses.

## Certifications Earned

Workplace Readiness Skills

## Postsecondary Options at Germanna Community College

- Associates of Art and Science - Business Administration
- Associate of Applied Science - Business Management
- Career Studies Certificate - Accounting, Business Core, Entrepreneurship, Supervision

## Sample Postsecondary Options at a 4-year University

- Bachelor of Science in Commerce - Accounting, Business, Economics, Finance
- Bachelor of Business Administration - Finance, Financial Economics, Political Economy
- Certificate in Venture Creation



## FUTURE CAREERS GROWTH PROJECTIONS

(Projections based on Regional Statistics)

General and Operations  
Managers - 12%

Sales Managers - 12%

Administrative Services  
Managers - 13%

Management Analysts - 19%

Training and Development  
Specialists - 22%

Social and Community Service  
Managers - 25%

Computer and Information  
Systems Managers - 16%

Receptionists & Information  
Clerks - 19%

Fundraisers - 29%

## Student Organizations

- FBLA
- DECA





# Business Management and Administration/Finance Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Lit./Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/ AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses	IT Fundamentals	Introduction to Marketing	Fashion Marketing/ Sports Marketing	Marketing	Advanced Marketing w/ Co-op or Marketing Management
		MOS I	MOS II	DMWT I	DMWT II
			Business Management		

# Education and Training/Human Services

## Summary of Pathway

Do you want to make a difference? Learners who pursue the Education and Training/Human Services pathway will be involved in classes to prepare the next generation to make a difference. This family of classes and practical experiences prepares students for the art of teaching, planning, and administration in schools, colleges, technical institutes, and businesses. This pathway can also prepare students for cosmetology, counseling, and self/personal care. The jobs in the area of Education and Training are expected to grow by 9% and Human Services by 16%. Courses in Family and Consumer Science and Psychology will help to prepare students for this pathway. Students also have the opportunity to apply to Early Childhood Education (Spotsylvania Career and Tech Center), Teachers for Tomorrow (Chancellor High School), and Cosmetology (Spotsylvania Career and Tech Center).

## Certifications Earned

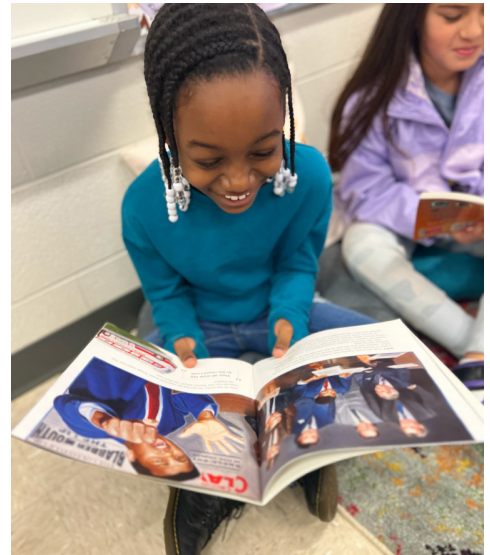
Cosmetology State Board of Licensing Certification; American Association of Family and Consumer Science Early Childhood; Education Student Certification

## Postsecondary Options at Germanna Community College

- Associates of Arts and Sciences - Education
- Specialization K-8 General Studies - Psychology Specialization
- Associates of Applied Sciences - Early Childhood Development
- Certificate - Early Childhood Development, General Education Certificate
- Career Studies Certificate - Early Childhood Development

## Sample Postsecondary Options at a 4-year University

In Virginia, students do not major in education. Instead, future teachers major in a content area (such as Biology, Modern Foreign Languages, or Theatre) and work toward teacher licensure through a 4-year undergraduate or 5-year master's program.



## FUTURE CAREER GROWTH PROJECTIONS

(Projections based on Regional Statistics)

Teachers (all levels) - 13%

Administrators - 13%

School Counselors - 18%

Coaches - 19%

Teaching Assistants - 12%

Librarians - 16%

Interpreters - 27%

Translators - 28%

## Student Organizations

- FCCLA
- Ed Rising

# Education and Training/Human Services Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Lit./Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/ AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses	Family & Consumer Science	Individual Development	AP Psychology		
			Psychology/ Sociology		
				Child Development & Parenting	Nutrition & Wellness
				DE Teachers for Tomorrow I	DE Teachers for Tomorrow II
				Early Childhood I	Early Childhood II
				Cosmetology I	Cosmetology II

# Government and Public Administration/Law, Public Safety, Corrections, and Security

## Summary of Pathway

Do you have a passion to provide a public service? Almost every career can be found within this field. Learners will be prepared to protect our country, represent our interests abroad, or pass and enforce laws. Learners may also be prepared to protect people from harm, crime, or national disasters. Both of these areas are projected for growth within the state and nationally. Government and Public Administration is projected to grow by 17%, and Law, Public Safety, Corrections, and Security are projected to grow by 8%. Courses that help to prepare students for this pathway include JROTC, Criminal Justice, and Social Science classes.

## Certifications Earned

ASVAB

## Postsecondary Options at Germanna Community College

- Associates of Arts and Sciences - Administration of Justice
- Associates of Applied Science - Administration of Justice; Fire Science
- Fire Science Certificate
- Career Studies Certificate - Administration of Justice; Legal Assistant; Paraprofessional Counseling

## Sample Postsecondary Options at a 4-year University

- Bachelor of Arts - International Relations, Political Science, Homeland Security, and Emergency Preparedness
- Bachelor of Science - Public Policy and Administration, Criminal Justice, Environmental Studies, and Forensic Science



## FUTURE CAREERS GROWTH PROJECTIONS

(Projections based on Regional Statistics)

Administrative Services  
Managers - 13%

Compliance Officers - 13%

Eligibility Interviewers for  
Government Programs - 11%

Court, Municipal, and License  
Clerks - 19%

Probation Officers and  
Correctional Treatment  
Specialists - 6%

Emergency Medical Technicians  
& Paramedics - 13%

Police, Fire, and Ambulance  
Dispatchers - 13%

First-Line Supervisors of Police  
and Detectives - 10%

Police and Sheriff's Patrol  
Officers - 11%

Security Guards - 7%

Lifeguards, Ski Patrol, and  
Other Recreational Protective  
Service Workers - 14%

Protective Service Workers -  
11%

## Student Organizations

- FBLA
- SkillsUSA



# Government and Public Administration/Law, Public Safety, Corrections, and Security Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Lit./Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/ AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses		Latin American History/ African American History			
	IT Fundamentals	Cybersecurity Fundamentals	Cybersecurity Networking Defense Operations	Advanced Cybersecurity Networking Defense Operations	
		JROTC I	JROTC II	JROTC III	JROTC IV
		AP Psychology/IB Psychology			
				Criminal Justice/ Sociology	



# Health Sciences

## Summary of Pathway

Do you want to make a difference by helping people or animals? The health science field provides many challenging educational and training opportunities within the high-skilled world of Health Science. Learners need a solid background in math, science, communications, and technical skills. This area is projected to grow 18% by 2026. Classes that can help students in this field are science, math, psychology, and technology classes. There is also an opportunity for a Medical Pathways course, Medical Assistant, Dental Assistant, Health Care Technician, and Veterinary Science programs at the Spotsylvania Career and Tech Center.

## Certifications Earned

Dental Assisting National Board Radiation Certification  
NHA: Certified Medical Administrative Assistant  
NHA: Certified Clinical Medical Assistant

## Postsecondary Options at Germanna Community College

- Associate of Arts & Sciences - General Studies and Pre-BSN Specialization
- Associate of Applied Sciences - Nursing, Licensed Practical Nursing for Advanced Standing, and Physical Therapist Assistant
- Certificates - Dental Assisting and/or Practical Nursing
- Career Studies Certificates - Allied Health Preparation, Healthcare Technician, Personal Training, Pharmacy Technician, Restorative Dental Function, Indirect Restorative Techniques, Expanded Functions Dental Assisting, and Surgical Scrub Nurse

## Sample Postsecondary Options at a 4-year University

- Bachelor of Arts & Sciences - General Studies, Pre-BSN Specialization
- Bachelor of Applied Sciences - Nursing, Licensed Practical Nursing for Advanced Standing, Physical Therapist Assistant
- Certificates: Dental Assisting, Practical Nursing
- Career Studies Certificates - Allied Health Preparation, Healthcare Technician, Personal Training, Pharmacy Technician, Restorative Dental Function, Indirect Restorative Techniques, Expanded Functions Dental Assisting, and Surgical Scrub Nurse



## FUTURE CAREER GROWTH PROJECTIONS

(Projections based on Regional Statistics)

Physician Assistants - 50%

Cardiovascular Techs - 20%

Radiologic Techs - 13%

EMTs - 18%

Medical Health Service  
Managers - 31%

Occupational Therapists - 40%

Physical Therapists - 38%

Family & General Practitioners  
- 24%

Registered Nurses - 19%

Veterinarians - 27%

Medical Assistant - 37%

Dental Assistant - 27%

Dentist - 26%

Nurse Practitioner - 47%

Home Health Aid - 44%

Physical Therapy Assistant -  
60%

## Student Organizations

- HOSA
- Science National Honor Societies (school specific)
- FFA
- Science National Honor Societies (school specific)

# Health Sciences Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Lit./Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/ AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses			AP Psychology/IB Psychology	Human Anatomy	
				Biology II Seminar	
				AP Biology	
				Chemistry/AP Chemistry	Chemistry II
				AP Physics/ DE Physics	AP Physics II
				Medical Assistant I	Medical Assistant II
				Dental Assistant I	Dental Assistant II
				Veterinary Science I (DE)	Veterinary Science II (DE)
					DE Health Care Tech

# Hospitality and Tourism/Marketing Pathways

## Summary of Pathway

Do you like people? The hospitality and tourism/marketing industry is a fast-paced, active setting that includes restaurants, retail environments, hotels, and others. Spotsylvania has hundreds of businesses that employ people in these industries. It's one of the top career fields in our area and is expected to grow by 10% by 2026. The average entry-level salary in hospitality management is \$40,109, and there are typically many opportunities for advancement in the field. Classes that prepare students for a career in this field include marketing, family and consumer sciences, and business management, along with Culinary, Hospitality, Tourism, and Recreation programs at the Career and Tech Center.

## Certifications Earned

National Restaurant Association Pro-Start Certification  
ServSafe Manager's Certifications  
Customer Service Certification  
Workplace Readiness

## Postsecondary Options at Germanna Community College

- Associates of Arts and Sciences or Applied Sciences in Business Management
- Career Studies Certificate - Accounting, Business Core, Entrepreneurship, and Supervision

## Sample Postsecondary Options at a 4-year University

- Bachelor of Business Administration - Marketing, Business Administration
- Bachelor of Science - Hospitality Management, Tourism and Events Management, and Sports and Recreation Management



## FUTURE CAREER GROWTH PROJECTIONS

(Projections based on Regional Statistics)

Sales Manager - 12%

Public Relations Specialist - 14%

Realtors - 5%

Event Planners - 16%

Advertising Sales Agents - 15%

Market Research Analysts and Marketing Specialists - 32%

Cooks (Restaurant) - 16%

Bakers - 16%

Food Preparation Workers - 11%

Food Service Managers - 13%

## Student Organizations

- SkillsUSA
- FCCLA
- Community Leaders of America
- DECA
- FBLA

# Hospitality and Tourism/Marketing Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Lit./Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/ AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses	Family & Consumer Science II	Intro to Marketing	Fashion Marketing/ Sports Marketing	Marketing	Advanced Marketing
		Individual Development		Business Management	
		Intro to Culinary Arts	Culinary Arts I	Culinary Arts II/Baking & Pastry Specialization	
		Intro to Hospitality	Hospitality I	Hospitality II	Marketing Management



# Information Technology and STEM

## Summary of Pathway

Do you like to work behind the scenes? Information Technology (IT) careers involve the design, development, support, and management of hardware, software, multimedia and systems integration services. The IT industry is a dynamic and entrepreneurial working environment that has a revolutionary impact on the economy and society. This area is projected to grow by 13% by 2026. Classes offered that help students advance in this field are Cybersecurity, Computer Information Systems, Computer Systems Technology, and Computer Science.

Do you like to problem solve? Learners who pursue engineering will be involved in planning, managing, and providing scientific research and professional and technical services including laboratory and testing services and research and development services. Engineers will improve and update product designs to optimize their manufacturing processes. Additional engineers and technologists will be needed to improve or build new roads, bridges, water and pollution control systems, and other public facilities. Employment of engineers is projected to grow 4% from 2014 to 2024. Courses that help students advance in the field are Engineering Explorations and Studies and Technical Drawing and Design along with the opportunity to apply to the Drafting program at the Career and Tech Center.

## Certifications Earned

COMP TIA 901 and 902 A+ Certification; Microsoft Office Specialist Word; Microsoft Office Specialist PowerPoint; Microsoft Office Specialist Excel; AutoCAD; Workplace Readiness; Inventor

## Postsecondary Options at Germanna Community College

- Associate of Applied Sciences - Information System Technology - Information Management of Network Security, Information System Technology - Networking, and Technical Studies, and Industrial Maintenance Technology
- Associate of Science Engineering - Electrical Concentration, and Mechanical Concentration
- Career Studies Certificates - Advanced Networking (not needed if taken Computer Networking), Cybersecurity, E-Commerce, Industrial Maintenance Technology, Microcomputer Applications for Business and Networking, and Engineering Technology

## Sample Postsecondary Options at a 4-year University

- Bachelor of Business Administration - Computer Information Systems
- Bachelor of Science - Information Systems, Aerospace Engineering Major, Civil and Environmental Engineering Major, Computer Engineering Major, Engineering Science and Mechanics, Computer Science, and Biomedical Engineering
- Bachelor of Arts - Computer Science
- Bachelor of Science in Commerce - Business Analytics Major, and Information Technology



## FUTURE CAREERS GROWTH PROJECTIONS

(Projections based on Regional Statistics)

Computer and Information  
Systems Manager - 16%

Computer and Information  
Research Scientists - 11%

Database Administrators - 21%

Computer User Support  
Specialists - 15%

Information Security Analysts - 47%

Computer Network Architects - 18%

Architectural and Engineering  
Managers - 10%

Software Developers - 37%

Computer User Support  
Specialists - 15%

Network and Computer Systems  
Administrators - 13%

Civil Engineers - 10%

Aerospace Engineers - 13%

Mechanical Engineers - 12%

## Student Organizations

- SkillsUSA
- FBLA
- TSA



# Information Technology and STEM Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Lit./Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/ AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses	IT Fundamentals	MOS I	MOS II	DMWT I	DMWT II
		Cybersecurity Fundamentals	Cybersecurity Networking Defense Operations	Advanced Cybersecurity Networking Defense Operations	
		Cybersecurity Fundamentals	Computer Systems Technology I	Computer Systems Technology II	
		AP Computer Science Principles		Computer Math (C++)	AP Computer Science JAVA
		Engineering Explorations/Engineering Studies			

# Manufacturing/Transportation, Distribution, and Logistics

## Summary of Pathway

Are you ready to help prepare our nation's aging infrastructures such as bridges, buildings, and highways? Or are you ready to manage and move everything from people to products through a range of transportation? Students will learn a range of skills to help prepare them in manufacturing for production planning, production design, maintenance, and engineering. Students will learn logistics in all modes of transportation from the road to the sky. Both fields will continue to be in demand as older workers retire although statistics only show a 2% growth increase. Students have the opportunity to apply to take Welding, Auto Service, and Auto Collision at the Spotsylvania Career and Technical Center.

## Certifications Earned

Automotive Service Excellence Student Examinations

## Postsecondary Options at Germanna Community College

- Associate of Applied Science Technical Studies: Industrial Maintenance
- Career Studies Certificate - Automotive Diagnostician; Automotive Technician
- Industrial Maintenance Technology

## Sample Postsecondary Options at a 4-year University

- Bachelor of Science - Manufacturing Engineering

*\*\*Automotive and Manufacturing Industries do not require a Bachelor's degree.*



## FUTURE CAREER GROWTH PROJECTIONS

(Projections based on Regional Statistics)

Automotive Body and Related Repairers - 12%

Automotive Service Technicians & Mechanics - 13%

Bus & Truck Mechanics and Diesel Engine Specialists - 11%

Mobile Heavy Equipment Mechanics, (except Engines) - 9%

Motorboat Mechanics and Service Technicians - 9%

Automotive and Watercraft Service Attendants - 21%

Cleaners of Vehicles and Equipment - 14%

Maintenance and Repair Workers, General - 11%

Helpers - Installation, Maintenance & Repair Workers - 17%

## Student Organizations

- SkillsUSA
- TSA



# Manufacturing, Transportation, Distribution, and Logistics Pathways

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	English 11	English 12
	Hon English 8	Hon English 9	Hon English 10	Hon English 11	Hon English 12
				AP English Lang./Comp.	AP English Lit./Comp.
				DE College Composition	DE College Literature
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Math 8	Algebra I	Geometry	AFDA	Algebra II
	Algebra I	Geometry	Hon Algebra II	Algebra II/ Hon Algebra II	Applied Math
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	DE Pre-Calculus Math Analysis	Math Analysis/ DE Pre-Calculus
				AP Calculus/ DE Calculus	AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	Earth Science	Earth Science II
	Hon Physical Science	AP Environmental Science	Hon Biology	Chemistry	Physics/AP Physics/ DE Physics
			AP Biology with Chemistry	AP Chemistry	Any Science
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	US History	Government
	Hon World History I	AP Human Geography	AP World History II	AP US History	AP Government
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible Additional Courses	Tech Systems	Welding I	Welding II Auto Service I	Auto Service I Auto Service II	Auto Service II
	IT Fundamentals	Manufacturing Tech	Construction Tech Auto Collision I	Auto Collision I Auto Collision II	Auto Collision II

# GCC Early College Pathway

## Summary of Pathway

Do you know you want to go to college for a bachelor's degree, master's degree, or doctoral degree? Are you looking to save money and possibly years of time preparing for your future? The Germanna Early College Pathway may be the right opportunity for you to make it happen.

Starting in 10th grade, students can begin a series of courses that can result in earning a high school diploma *and* an associate's degree from Germanna. Most of these courses are available at each high school. Dual Enrollment (DE) and Advanced Placement (AP) courses provide college credit while also meeting high school graduation requirements. DE courses require students to earn a 'C' or better and are guaranteed to count towards associate degree requirements at Germanna. AP courses have an end of course exam and students must earn a 3 or better (the best possible score is 5) on the AP exam to count towards the associate degree requirements at Germanna. Other colleges and universities may also award college credit for completing these courses, but each school determines what exam scores are required for college credit. This pathway has been developed in partnership with Germanna to ensure that all credits earned count towards both the high school diploma and the Germanna Associate's degree.

Some courses must be taken at the Germanna campus or online. Germanna requires all students to take a student development course, an introductory computer course, and a communications course. These classes equip students with the study habits and basic computer skills necessary for success in college. Germanna also requires a college-level health or physical education course to be taken on-campus during the summer between junior and senior year.

Earning an associate's degree at the same time as a high school diploma is a rigorous academic pathway. Make an appointment with your school counselor and follow up with a Germanna advisor to discuss your specific plan.





# Early College Pathway - Associate's of Arts and Sciences

	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
English	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	English 8	English 9	English 10	AP English 11	AP English 12
	Hon English 8	Hon English 9	Hon English 10	DE English 11	DE English 12
Math	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Algebra I	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	AP Calculus/ DE Calculus
	Geometry	Hon Algebra II	Math Analysis/ DE Pre-Calculus	AP Calculus/ DE Calculus	AP Calculus BC
					AP Statistics
Science	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	Physical Science	Environmental Science	Biology	AP Chemistry	AP Physics/ DE Physics
	Hon Physical Science	AP Environmental Science	Hon Biology	AP Biology	AP Chemistry
				AP Physics/ DE Physics	AP Biology
Social Studies	Choose One:	Choose One:	Choose One:	Choose One:	Choose One:
	World History I	World Geography	World History II	AP US History	AP Government
	Hon World History I	AP Human Geography	AP World History II		
Health & PE	Health/PE 8	Health/PE 9	Health/PE 10		
World Language	World Language I through AP				
Per. Fin./Econ			Economics & Personal Finance		
Possible additional courses				AP European History	AP Psychology
Required GCC Courses			SDV 100 - Student Development*	CST 100/110/126 - Communications*	GCC Humanities Elective
			College-level Health/ PE*	ITE 115 - Intro to Computer Apps & Concepts*	Social Science Elective

\*Recommended summer course

# Middle School Information

## School Counseling Program and Services

The middle school years offer tremendous growth opportunities for students and their families. During this time of adolescence, students are seeking out their own identity, adjusting to more responsibilities, and are balancing increasing academic loads. Although typical 10 to 15-year-olds will act as if they want complete independence, they really do seek and respect parent/guardian opinions. It is highly recommended that middle school parents attend school events, meet the school counselor, talk with teachers, and learn more about the middle school program.

Each building employs professional school counselors who can help students and parents navigate concerns around these “middle years.” Middle school counselors are instrumental in the academic success of students. They provide academic, career, and personal counseling designed to meet the unique developmental stage of middle level learners. Parents will find that building counselors utilize a variety of programs to engage all students including: classroom lessons, small group sessions, individual counseling, and parent workshops.

## Family Life

The Family Life Program is designed to help students understand and adjust to the pressures of growing up. The program promotes a positive self-concept, develops communication and decision-making skills, helps students understand and cope with emotional growth and development, and promotes positive family and social skills to say “no” to relationships or substances that can be physically and emotionally harmful. Information addresses the value of family relationships, mental health education and awareness, the value of postponing sexual activity, sexually-transmitted infections, substance use and abuse, human trafficking, and decision-making skills. The health and physical education teacher provides instruction on family life education during health class. Each school notifies parents prior to the beginning of family life instruction regarding the availability of the Family Life curriculum for review at each school and the option to exempt a student from specified activities. An opt-out form is available from the school.

Battlefield Middle School .....	786-4400
Chancellor Middle School .....	786-8099
Freedom Middle School .....	548-1030
Ni River Middle School .....	785-3990
Post Oak Middle School .....	582-7517
Spotsylvania Middle School .....	582-6341
Thornburg Middle School .....	582-7600

The focus of the middle school curriculum is to enable students to develop basic skills necessary for learning and the ability to apply those skills to new tasks. All courses are taught in accordance with locally developed curriculum guides and state-developed Standards of Learning objectives.

The Parent/Student Handbook provides information about the many opportunities for student participation in extracurricular activities. Opportunities for active participation in areas of interest are valuable for students at any grade level but are particularly important for middle school students.

Information about each school is available on the website at [www.spotsylvania.k12.va.us](http://www.spotsylvania.k12.va.us).

# 6th Grade Course Descriptions

Standards of Learning objectives (SOL) developed by the Virginia Department of Education are the basis for the core academic curriculum in grades 6-8. Locally developed objectives in curriculum guides reflect, amplify, or exceed the objectives developed by the state. Required classes include: English, Mathematics, Science, History & Social Science, and Health & Physical Education.

Elective classes are determined by the school and may include: Band, Orchestra, Chorus, World Language Exploratory, or an Exploratory rotation. Exploratory rotation experiences are determined by the school and typically include Exploratory Art, Family and Consumer Science, Introduction to Technology, Computer Solutions and Music Appreciation. Students who struggle with reading or math fundamentals may also receive additional support as an elective based on the needs of the student.



## Core Classes

### English 6

#### Course #1109

This course will emphasize the application and refinement of reading comprehension strategies focusing on developing and analyzing effective communication skills in presentations and small group discussions. In addition, students will study and develop vocabulary, understand the basic elements of media literacy, build research skills, and utilize technology as appropriate. Students will read, independently and in groups, a variety of fiction, narrative nonfiction, nonfiction, and poetry. Additionally, students will plan, draft, revise, and edit narratives, descriptive, expository, and persuasive writing with concentration on composing, written expression, and usage/mechanics.

### United States History 6

#### Course #2354

This course is the continuation of United States history from the fifth grade. Students will study United States history from the end of the Civil War to present day. Focus will be placed upon the following: geographic influences; westward expansion; immigration; development of American cities; Progressive Movement; involvement in world affairs from the Spanish-American War to the Cold War; and the economic, social, and political transformation of the United States and the world between the end of World War II and the present.

### Math 6

#### Course #3110

The Math 6 curriculum includes the prescribed Virginia Standards of Learning (SOL) as a minimum. The sixth grade curriculum places emphasis on the study of rational numbers to include integers, decimals, fractions and percents. Students will use ratios to compare data sets; identify and represent integers and their absolute value, use all four operations with rational numbers and integers; explore proportional relationships; focus on problem solving with area, perimeter, volume, and surface area; determine probability and use statistics; and investigate and solve practical problems involving equations and inequalities.

### Pre-Algebra

#### Course #3122

Prerequisite: Division Placement Criteria

In the Pre-Algebra course, students review and extend concepts and skills from previous math courses and study new content to better prepare them for algebra and geometry. The Pre-Algebra curriculum places an emphasis on the study of linear relationships. Students will gain proficiency in computation with rational numbers and integers, use of proportions to solve a variety of problems, solving algebraic equations and inequalities, and representing functional relationships in a variety of ways. Other topics include problem solving with two and three dimensional figures, probability, and statistics.

### Science 6

#### Course #4105

Sixth grade science builds on the scientific concepts, skills, and processes acquired in kindergarten through fifth grade. Students will experience the richness and excitement of scientific discovery and the natural world as they study the role of the sun's energy on the Earth's systems, air and atmosphere, human interactions as they affect watershed systems, and basic chemistry concepts. The concept of change is explored through the study of transformations of energy and matter. A more detailed understanding of the

solar system and space exploration takes students on a collaborative quest for knowledge and understanding. Emphasis is placed on development and use of an experimental design in scientific inquiry, use of the language of science to communicate understanding, and investigation of phenomena using technology.

### **Health & Physical Education 6** **Course #7110**

Students in middle school Physical Education will develop fundamental skills and build them into more skilled movements as they progress through eighth grade. In all grades, students will focus on cooperative and competitive games, dance, and lifetime activities as appropriate for their development. Through these activities, students will gain knowledge in rules, decision making, conflict resolution, appropriate etiquette, and respect for others. Students will focus on personal wellness and goal setting as it relates to their cardiorespiratory endurance, muscular strength endurance, flexibility, and body composition. In Health, students will cover a variety of topics relating to body systems, nutrition, first aid, safety, alcohol, tobacco, drugs, family life, and disease.



## **Elective Classes**

### **Family & Consumer Sciences I** **Course #8261**

Family and Consumer Sciences Exploratory I prepares students for the demands of 21st century living. This course provides a foundation for managing individual, family, career, and community roles and responsibilities. Students focus on areas of individual growth, goal setting, strengthening families, and awareness of personal safety and wellness. They also explore saving and spending practices, clothing care, food preparation, positive and caring relationships with others, and careers. Instruction emphasizes science, technology, engineering, and mathematics (STEM) concepts, when appropriate.

### **Introduction to Technology I** **Course #8481**

Students will study the basic elements of all technology, including processes, energy, information, and people. They will relate the impact of technology on society, environment, and culture to future consequences and decisions. Students utilize the design process through hands-on projects such as 3D printing, flight models, egg drop, and more.

### **Computer Solutions** **Course #6607**

This course is designed for middle school students to develop and enhance touch skills for entering alphabetic, numeric, and symbol information on a keyboard. Students compose and produce personal, educational, and professional documents.

### **Music Appreciation** **Course #6903**

Students will gain knowledge of music through the exploration of concepts and skills. Students will analyze musical compositions, identify sound sources, demonstrate music reading skills, develop an understanding of the history of music, and identify career opportunities related to music. Through a variety of activities, the student will experience growth in musicianship and expanded aesthetic awareness.

### **Art Grade 6** **Course #9105**

Students will develop their art skills, learn new studio habits, grow as artists, develop critical thinking skills, expand their creativity, and experiment with making art across a variety of mediums. This course reflects the students' concerns for realistic representation and their interest in contemporary issues. Note: Art Grade 6 is not a prerequisite for future art classes.

### **World Language Exploratory I** **Course #5700**

Sixth grade World Language Exploratory is a language enrichment class that provides students with an overview of the culture and people who speak French, German, Latin, and Spanish. Topics for each language include: holidays, music, art, geography, literature, culinary exploration, activities, interests, and social conversation. World Language Exploratory will help students make an informed decision about the language they wish to pursue in seventh grade.

### **ESOL- English for Speakers of Other Languages** **Course #7820E**

The ESOL program will provide the English Learner (EL) student with the language skills necessary for academic success and to participate fully in the total school program. The course will emphasize the application of the WIDA English Language Development Standards to content knowledge and skills.

### **Band I** **Course #9230**

Band I develops students' basic instrumental skills. These skills will provide a solid foundation upon which students will build as they advance to the intermediate level. Through classroom performance, students will learn the mechanics of proper sound production, attain knowledge of rhythm and rhythm patterns, and begin developing the social skills necessary to function successfully in a group situation. Students supply their own instruments.

### **Orchestra I** **Course #9235**

This full-year course will focus on how to play a string instrument (violin, viola, cello, and string bass). Students learn how to read and write music, experience music history, musical style, ensemble performance, bowing technique, instrument care, tone production, and



conducting patterns. Daily at-home practice is necessary for student success. Students must furnish own violin, viola, cello, or bass, with larger instruments provided for in-school use. Students who select this class are required to play all music in concerts.

### **Chorus I**

### **Course #9269**

Chorus I is offered to students who wish to develop their knowledge, understanding, and appreciation of vocal music. It offers students the opportunity to improve their vocal technique and skills in musicianship, to develop an understanding and appreciation for vocal music, and to participate in concerts. The selection of music for study and performance may be based upon a variety of styles and/or periods of music history and provides a variety of vocal experiences.

# 7th Grade Course Descriptions

Students in 7th grade engage core instruction in English, Math, Civics & Economics, Life Science, and Health & Physical Education. Elective opportunities available to 7th graders include: Art, Inventions and Innovations, Family and Consumer Sciences, Digital Input Technology, Hands on Music, and Chorus. Students who began music instruction in 6th grade can continue in Band or Orchestra. Although participation in 6th grade orchestra is expected as a prerequisite for the 7th grade courses, some students who take lessons or practice on their own are able to participate. Please see your music teacher for details if this interests you.

Students in 7th grade may also take a high school world language course. These rigorous courses (French I, German I, Latin I, and Spanish I) are described in the high school section of this guide. World language courses offer students the opportunity to earn high school credit prior to 9th grade. World language courses are a requirement for the advanced diploma and can also lead to the Seal of Academic Excellence and the Virginia Seal of Biliteracy.



## Core Classes

### English 7

**Course #1120**

This course is designed to expand the study of literature, writing, research, oral communication, and media literacy. Students will continue to learn and expand the use of reading comprehension strategies as well as research skills. They will also enhance their literacy skills by developing more advanced vocabulary and reading a variety of fiction, nonfiction, and poetry. Students will continue to develop oral communication skills independently and in small groups, as well as advance their knowledge of persuasive techniques used in the media. Students will plan, draft, revise, and edit expository, narrative, and persuasive pieces with attention to composition, written expression, and usage/mechanics.

### Civics & Economics 7

**Course #2357**

Civics is the study of the structure and functions of the United States government at the national, state, and local levels. Focus will be placed upon the founding documents, principles and structure of American constitutional government, rights and responsibilities of American citizenship, political processes, three branches of government, and the linkage of institutions influencing government. Students will also explore an introduction to economic principles and the American economic system.

### Math 7

**Course #3111**

The Math 7 curriculum includes the prescribed Virginia Standards of Learning (SOL) as a minimum. The seventh grade curriculum places emphasis on algebraic foundations and proportional reasoning. Students will use order of operations to evaluate numeric and algebraic expressions, apply properties of real numbers, solve linear equations and inequalities, work with consumer application programs,

work with rational numbers in a variety of ways, solve problems involving two and three dimensional figures, probability, and statistics, perform statistical analysis, and analyze situations involving probability.

### Pre-Algebra

**Course #3122**

**Prerequisite:** Division Placement Criteria

In the Pre-Algebra course, students review and extend concepts and skills from previous math courses and study new content to better prepare them for algebra and geometry. The Pre-Algebra curriculum places an emphasis on the study of linear relationships. Students will gain proficiency in computation with rational numbers and integers, use of proportions to solve a variety of problems, solving algebraic equations and inequalities, and representing functional relationships in a variety of ways. Other topics include problem solving with two and three dimensional figures, probability, and statistics.

### Algebra

**Course #3130**

**Credit: 1 Unit of High School Credit**

Algebra I is a study of the real number system and its properties. Students will study the solution of linear and quadratic equations, linear inequalities, systems of equations, polynomials, graphing, and data analysis. Tables and graphs will be used to interpret algebraic expressions, equations, and inequalities and to analyze functions. Appropriate technology (graphing calculators and spreadsheets) will be used as tools to assist in problem solving.

### Life Science

**Course #4115**

The living world is emphasized by studying change, life cycles, patterns, and relationships. Students gain an understanding of these principles through the following: the study of cellular organization, the classification of organisms, the relationship among organisms, populations,

communities and ecosystems, and change due to the transmission of genetic information from generation to generation. Students will continue to build scientific reasoning; logic, and an understanding of the nature of science by planning and conducting investigations, manipulating variables, and identifying sources of experimental error.

### **Health & Physical Education** **Course #7120**

Students in middle school Physical Education will learn fundamental skills and develop them into more skilled movements as they progress through eighth grade. In all grades, students will focus on cooperative and competitive games, dance, and lifetime activities as appropriate for their development. Through these activities, students will gain knowledge in rules, decision making, conflict resolution, appropriate etiquette, and respect for others. Students will focus on personal wellness and goal setting as it relates to their cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition. In Health, students will cover a variety of topics relating to body systems, nutrition, first aid, safety, alcohol, tobacco, drugs,



## **Elective Classes**

family life, and disease.

### **Digital Technologies 7** **Course #6155**

Digital Input Technologies introduces new and emerging input devices (e.g., speech and handwriting recognition software, tablets, cloud computing software applications, headsets/microphones, scanners, digital cameras, digital video cameras, mobile devices, keyboards, mice) to prepare students for using tools that are becoming standard in the workplace and everyday life. Emphasis is also placed on using basic touch keyboarding skills.

### **Family & Consumer Sciences II** **Course #8263**

Family and Consumer Sciences Exploratory II emphasizes personal responsibility for the demands of multiple life roles through hands-on, project-based instruction. Students focus on individual development; maintain their personal environments; apply nutrition and wellness practices; manage consumer and family resources; create textile; fashion and apparel products; and explore careers related to Family and Consumer Sciences such as child care. Instruction in this course emphasizes science, technology, engineering and mathematics (STEM) concepts, where appropriate.

### **Technology Education II - Inventions & Innovations**

**Course #8464**

Students will gain insights into the underlying fundamentals of technology through project-based learning. Students will also explore contemporary technological problems and invent new products or innovations as solutions. Students will utilize the design process through hands-on projects such as racers, rockets, structures, 3D design, and more.

### **Art Grade 7** **Course #9106**

During this course, students will develop their art skills, learn new studio habits, grow as artists, develop critical thinking skills, expand their creativity, and experiment with making art across a variety of mediums. Students may opt to develop a portfolio for Art Grade 8.

### **Hands-On Music 7** **Course #9211**

This is a semester class in which students will gain knowledge of music through the exploration of concepts and practicing skills. Students will analyze musical compositions, identify sound sources, demonstrate music reading skills, develop an understanding of the history of music, and identify career opportunities related to music. Through a variety of activities, students will experience growth in musicianship and expanded aesthetic awareness.

### **Reading Improvement 7** **Course #1187**

Reading Improvement is designed to strengthen reading fluency and comprehension. Students are assigned based on need as demonstrated by classroom performance as well as diagnostic and achievement testing. Reading Improvement is taken in place of an elective subject.

### **Algebra Readiness 7** **Course #3127**

Students must pass Algebra I and the Algebra I SOL End-Of-Course test to earn a Standard Diploma from a high school in Virginia. The Algebra Readiness Program is designed to provide mathematics intervention to students who are at risk of failing the Algebra I SOL End-of-Course test, as demonstrated by individual performance on diagnostic tests approved by the Department of Education. Teachers will individualize math instruction for students and provide the assistance needed to be successful in Algebra I. Only students who are performing below average in their current mathematics course and/or did not pass the Standards of Learning Mathematics assessment will be required to take a state-approved diagnostic test. Those students who are not successful on the diagnostic test will be required to enroll in the Algebra Readiness Program for a minimum of one quarter in place of an exploratory or elective class.

## **ESOL - English for Speakers of Other Languages**

### **Course #7820E**

The ESOL program will provide the English Learner (EL) student with the language skills necessary for academic success and to participate fully in the total school program. The course will emphasize the application of the WIDA English Language Development Standards to content knowledge and skills.

## **Band II**

### **Course #9231**

#### **Prerequisite: Band I**

This course focuses on the refinement and extension of skills introduced at the beginning band level to provide a solid foundation upon which to build and continue to the next level. Students will refine the mechanics of proper sound production, acquire knowledge of more difficult rhythms and rhythm patterns, and further develop the social skills necessary to function successfully in a group situation. Students supply their own instruments.

## **Orchestra II**

### **Course #9236**

#### **Prerequisite: Orchestra I or director recommendation**

This full-year course is a continuation of Orchestra I. Students will continue the mastery of string technique and ensemble performance. Students will perform more advanced repertoire. Daily at-home practice is necessary for student success. There will be additional performance opportunities such as All-County Orchestra and Regional Orchestra auditions. Students furnish their own violin, viola, cello, or bass, with larger instruments provided for in-school use. Students who select this class are required to play all music and participate in concerts.

## **Chorus II**

### **Course #9270**

Chorus II is offered to students who wish to expand their knowledge, understanding, and appreciation of vocal music. It offers students the opportunity to improve their vocal technique and skills in musicianship, to develop an understanding and appreciation for vocal music, and to participate in concerts. The selection of music for study and performance may be based upon a variety of styles and/or periods of music history and provides a variety of vocal experiences.



# 8th Grade Course Descriptions

## Note Regarding Course Selection

Algebra I, Geometry, Information Technology Fundamentals, and World Language are offered to middle school students for high school units of credit. Course descriptions may be reviewed in the high school section of this guide. Each course fulfills high school requirements and counts as a unit of credit toward high school graduation. A verified unit of credit for Algebra I and Geometry can be earned toward high school graduation by passing the course and passing the Standards of Learning End-of-Course test. Grades earned count in the computation of the high school grade point average and class rank. Students are encouraged to take challenging course work while in middle school. Based on State Board of Education policy, a student who completes a high school course while in middle school may have the credit and grade removed from the student's permanent record. This procedure is recommended if the student has not shown strong academic performance and needs to take the course again to gain mastery of the content.

Students enrolled in high school credit courses (Algebra, Geometry, Information Technology Fundamentals, World Language) will receive information about the policy and procedures. All requests to remove the high school credit and grade must be in writing and completed by the deadline indicated on the letter.



## Core Classes

### English 8

**Course #1120**

Students will continue to learn and expand the use of reading comprehension strategies. Oral communication skills, including interviewing techniques, will be applied in this course. In addition, students will analyze, develop, and produce creative and informational media messages. Students will apply knowledge of vocabulary and figurative language in texts, and will continue the study of literary elements, including theme, main idea, cause-effect relationships, and inferencing in a variety of literary and informational selections. English 8 students will take the Virginia Standards of Learning tests in both Reading and Writing.

### Honors English 8

**Course #1120AD**

Students will delve more deeply into literature to search for complex themes and relationships and to support their assertions with textual references. Instruction will include reading comprehension with an emphasis on paired passages, writing in expository, persuasive, narrative, and informational modes, language conventions, vocabulary development in meaningful contexts, and research skills. Honors English 8 students will take the Virginia Standards of Learning tests in Reading and Writing.

### Health & Physical Education 8

**Course #7200**

Students will focus on cooperative and competitive games, dance, and lifetime activities as appropriate for their development. Through these activities, students will gain knowledge in rules, decision making, conflict resolution, appropriate etiquette, and respect for others. Students will

focus on personal wellness and goal setting as it relates to their cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition. In Health, students will cover a variety of topics relating to body systems, nutrition, first aid, safety, alcohol, tobacco, drugs, family life, and disease.

### World History I

**Course #2215**

This course will cover the historical development of people, places, and patterns of life from ancient times until 1500 A.D. (C.E.). Areas of study will include the following: the early development of humankind from the Paleolithic Era to the revolution of agriculture, ancient river civilizations, early Greece, ancient Rome, conflict between the Muslim world and Christendom, Byzantine Empire, Russia, Europe, Asia, Africa, and the Americas.

### Honors World History I

**Course #2215AD**

In the honors course, students will follow a systematic approach to the development of their writing skills while completing all the content of the World History I 8th grade course. Students should expect homework (reading, writing, studying) every night. Students will take reading quizzes during the course of the year, and students will complete short written responses to advanced level questions.

### Math 8

**Course #3112**

Students will gain proficiency in computation with rational numbers, identifying relationships of rational numbers, the use of proportions to solve a variety of problems, solving multi-step algebraic equations and inequalities, and representing functional relationships in a variety of ways. Other topics the course will include plane geometry (including Pythagorean Theorem and transformations),

solid geometry (including problem-solving with surface area and volume), probability, and statistics. Students enrolled in this class takes the Math 8 SOL.

### **Physical Science 8**

**Course #4125**

Physical Science emphasizes the nature and structure of matter and the characteristics of energy. Areas of study include the periodic table; physical and chemical changes; nuclear reactions; temperature and heat; sound; light; electricity and magnetism; and work, force, and motion. Research and experimentation and the manipulation of variables to validate conclusions will also be part of the class. Students will share their work through written and oral presentations. Students take the Standards of Learning test for Grade 8 Science.

### **Honors Physical Science 8**

**Course #4125AD**

The course will incorporate technology, community resources, laboratory experimentation, and problem-based learning activities designed to foster critical thinking. This course will encourage student-directed, inquiry-based research and each student will conduct an approved research project. The course is recommended for highly motivated students with exceptional work and study habits and a high interest in science. Students will take the Standards of Learning test for Grade 8 Science.



## **Elective Offerings**

### **Family & Consumer Sciences III**

**Course #8244**

Family and Consumer Sciences Exploratory III is an advanced-level course that will prepare middle school students for their roles in families, careers, and communities through project-based instruction. Students will experience in-depth studies of nutrition and wellness, food preparation, relationships, personal environments, textiles, fashion and apparel, consumer resources, child development and care, and leadership service in action. Instruction in this course will emphasize science, technology, engineering, and mathematics (STEM) concepts.

### **Make It Your Business**

**Course #: 8114**

Students design, establish, and operate a small group or class business, producing a service or product that meets an identified school or community need. Emphasis is placed on the introduction and application of business terminology, basic entrepreneurship concepts, and fundamental business principles. Basic academic skills (mathematics, science, English, and history/social science) are integrated into this course.

### **Technology Education III - Technological Systems**

**Course #8463**

Students will explore, design, analyze, and evaluate technological systems by simulating systems and assessing their impacts. Students will also explore occupational areas and technology-oriented careers. Students will utilize the design process through hands-on projects such as dream house design, CO2 cars, maglev racers, water rockets, and others.

### **Art Grade 8**

**Course #9107**

Art Grade 8 is offered to students who wish to expand their knowledge, understanding, and skill as a growing artist. Students will be asked to complete 2D and 3D projects that follow detailed steps. Techniques will be used to familiarize students with higher level art classes. Grading in this course will focus on aesthetic quality, project completion, and time management. Note: Students will be expected to keep a sketchbook.

### **Hands-On Music 8**

**Course #9213**

Students will gain knowledge of music through the exploration of concepts and practicing skills. Students will analyze musical compositions, identify sound sources, demonstrate music reading skills, develop an understanding of the history of music, and identify career opportunities related to music.

### **Reading Improvement 8**

**Course #1188**

Reading Improvement will strengthen reading fluency and comprehension. Students will be assigned based on need as demonstrated by classroom performance and diagnostic and achievement testing. Reading Improvement 8 will take the place of an elective subject.

### **Theatre Arts**

**Course #1395**

Students will learn miming and facial expression as ways to use the body in acting. They will also learn vocal skills such as expressive reading and projection. Additionally, students will learn the vocabulary of theatre and the stage. The class will emphasize the utilization of imagination, quick thinking skills, teamwork, empathy, and introspection as a way to develop acting skills.

### **Algebra Readiness 8**

**Course #3128**

This course will provide mathematics intervention services to students who are at risk of failing the Algebra I SOL End-of-Course test, as demonstrated by individual performance on diagnostic tests approved by the Department of Education. Teachers will individualize mathematics instruction and provide the assistance students need to be successful in Algebra I. Only students who are performing below average in their current mathematics

course and/or did not pass the Standards of Learning Mathematics assessment will be required to take a state-approved diagnostic test.

## **ESOL- English for Speakers of Other Languages**

### **Course #7820E**

The ESOL program will provide the English Learner (EL) student with the language skills necessary for academic success and to participate fully in the total school program. The course will emphasize the application of the WIDA English Language Development Standards to content knowledge and skills.

## **Band III**

### **Course #9240**

#### **Prerequisite: Band II**

Through classroom and public performance, the students will continue to refine the mechanics of proper sound production, acquire knowledge of more difficult rhythms and rhythm patterns, and further develop the social skills necessary to function successfully in a group situation. Students must supply their own instruments.

## **Orchestra III**

### **Course #9246**

#### **Prerequisite: Orchestra II or director recommendation**

Students will continue the mastery of string technique and ensemble performance through advanced technical etudes, scales, arpeggios, and age-appropriate repertoire. Daily at-home practice will be necessary for student success. There will be additional performance opportunities such as All-County Orchestra and Regional Orchestra. Students furnish their own violin, viola, cello, or bass, with larger instruments provided for in-school use. Students who select this class will be required to play all music and participate in concerts.

## **Chorus III**

### **Course #9271**

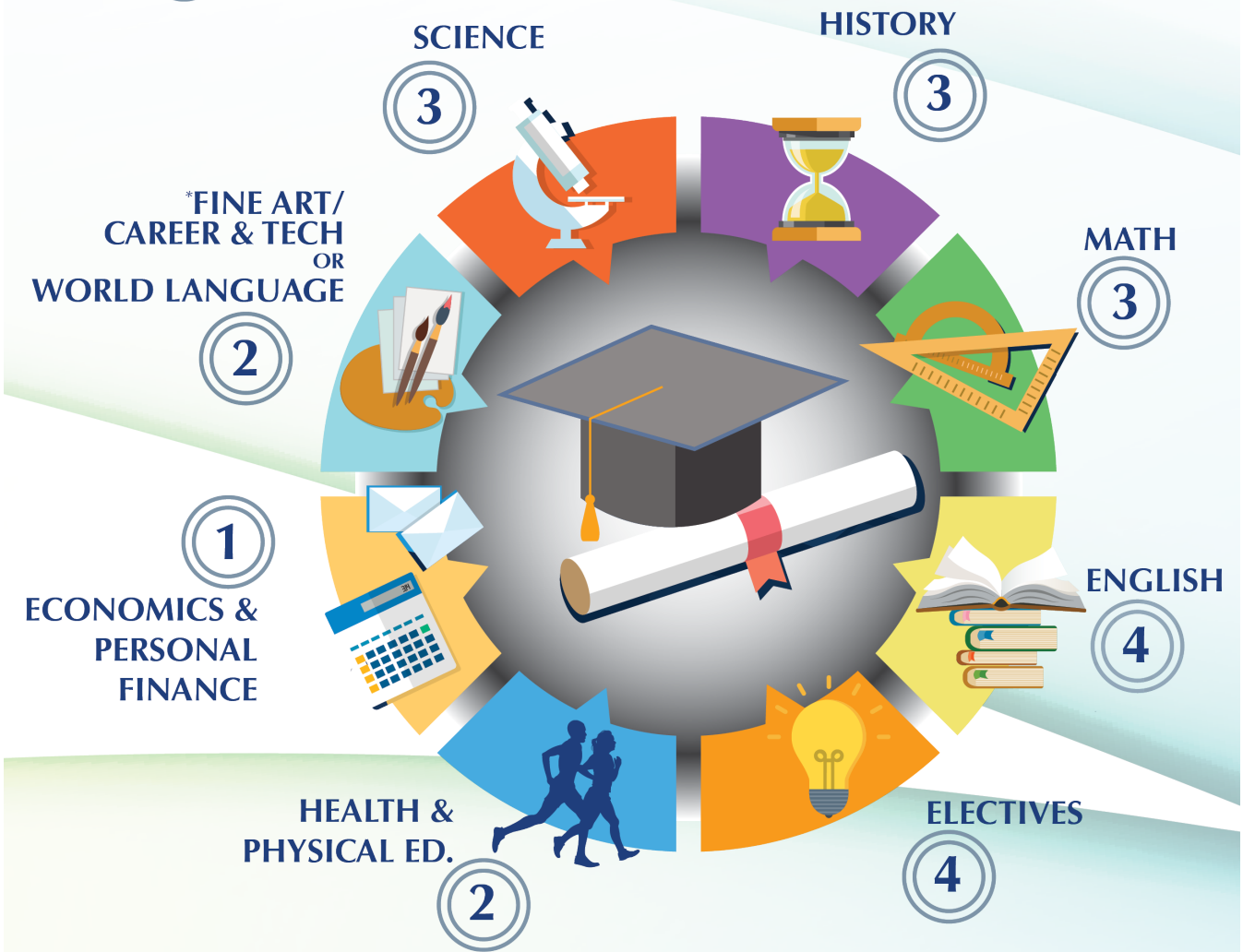
Chorus III will focus on the refinement of skills including the intensified study of diction, sound production, posture, phrasing, theory, sight singing, and rhythm. Chorus III will offer students the opportunity to improve their vocal technique and skills in musicianship, develop an understanding and appreciation for vocal music, and participate in concerts. The selection of music for study and performance may be based upon a variety of styles and/or periods of music history which will provide a variety of vocal experiences.

# High School Information

## Requirements for a Standard Diploma

### GRADUATION REQUIREMENTS: Standard Diploma

22 Total Credits



Students earn 5 verified credits by successfully completing specific courses and passing associated end-of-course SOL tests or other approved assessments.

\* One credit in Fine or Performing Arts or CTE is required.

for more detailed information visit  
[doe.virginia.gov](http://doe.virginia.gov)

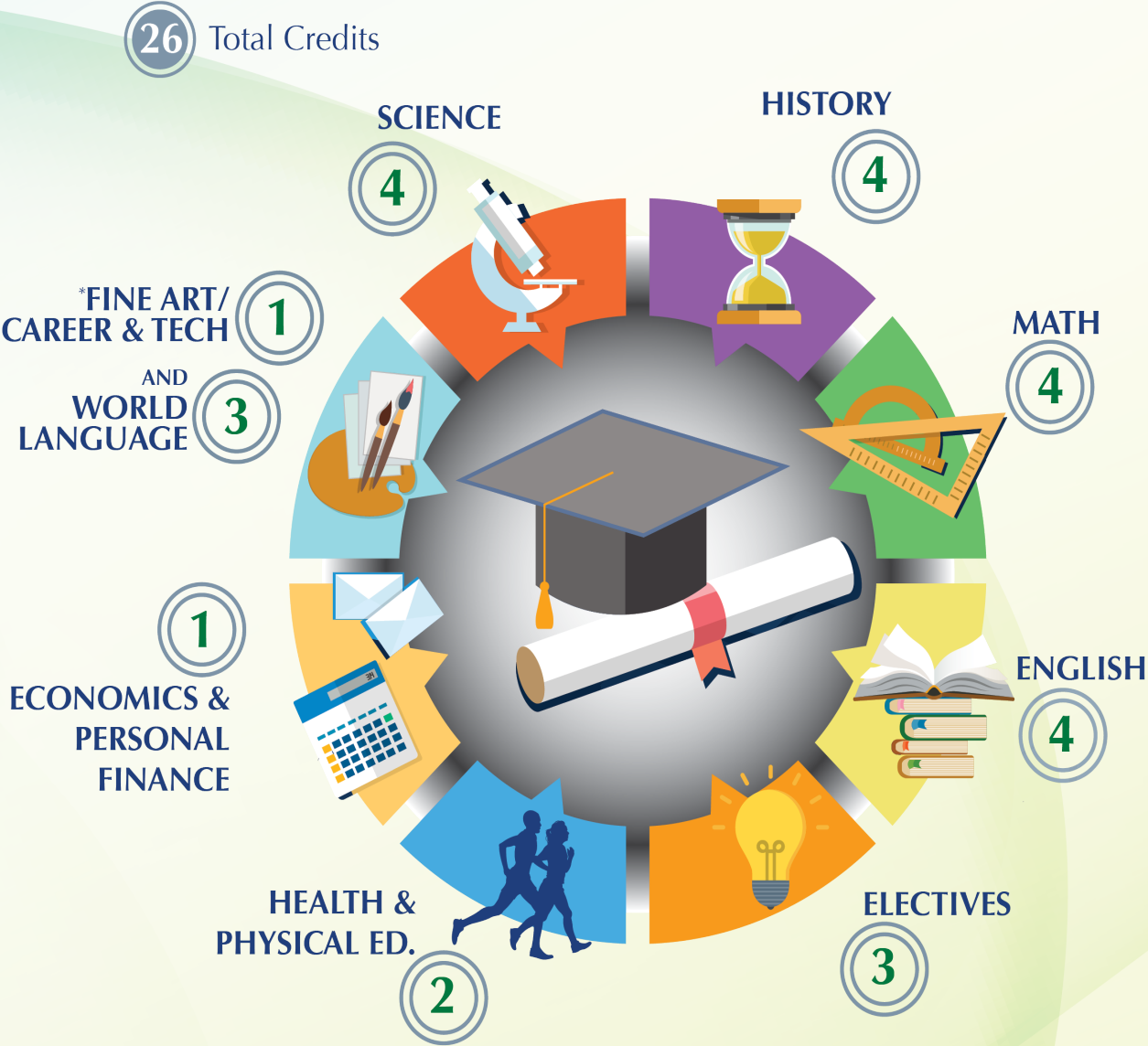
Standard Diploma		
Subject	Standard Units of Credit Required	Verified Credits Required
English	4	2
Mathematics	3	1
Science	3	1
History/Social Science	3	1
Health & Physical Education	2	
World Language, Fine Arts or Career & Technical Education	2	
Economics & Personal Finance	1	
Electives	4	
<b>TOTAL</b>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



# High School Information

## Requirements for an Advanced Studies Diploma

### GRADUATION REQUIREMENTS: Advanced Studies Diploma



Students earn 5 verified credits by successfully completing specific courses and passing associated end-of-course SOL tests or other approved assessments.

\* In addition to one credit in Fine or Performing Arts or CTE, three credits of one language or two credits of two languages are required.

for more detailed information visit  
[doe.virginia.gov](http://doe.virginia.gov)

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

# Academic Recognition

Recognition is provided in several ways for high school students who excel in their academic pursuits. To be on the Honor Roll, a student must have a final nine week's grade of at least 80 in all subjects. To earn an Academic Letter, the student must earn at least 5 credits and a 3.50 or better grade-point average (without rounding) with no final grade lower than a "C" for the school year.

Seniors who have a final grade point average of 3.50 or higher are recognized as honor graduates at Commencement. Seniors with a final grade point average of 4.0 or higher are recognized as graduating with special distinction at Commencement. The senior(s) who has the second highest final grade point average is recognized as the Salutatorian. The senior(s) with the highest final grade point average is recognized as the Valedictorian.

## Graduation Seals

### GOVERNOR'S SEAL

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

### STATE BOARD OF EDUCATION SEAL FOR ADVANCED STUDIES OR STANDARD DIPLOMA

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

### BOARD OF EDUCATION'S SEAL FOR CAREER AND TECHNICAL EDUCATION

The Board of Education's Seal for Career and Technical Education shall be awarded to students who earn a Standard Diploma or an Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses or (i) pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade, or professional association or (ii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The board shall approve all professional licenses and examinations used to satisfy these requirements.

### BOARD OF EDUCATION'S SEAL OF BILITERACY

The Board of Education's Seal of Biliteracy shall be awarded to students who demonstrate proficiency in English and at least one other language and meet additional criteria established by the board.

## **BOARD OF EDUCATION STEM SEAL**

The Board of Education's Seal of Science, Technology, Engineering, and Mathematics (STEM) shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) satisfy all Math and Science requirements for the Advanced Studies diploma with a "B" average or better in all course work, and (ii) successfully complete a 25-hour or more work-based learning opportunity in a STEM area, and (iii) satisfy all requirements for a Career and Technical Education concentration (a concentration is a coherent sequence of two or more state-approved courses as identified in the course listing within the CTE Administrative Planning Guide), and (iv) pass one of the following: a Board of Education CTE STEM-H credential examination or an examination approved by the Board that confers a college-level credit in a STEM field.

## **BOARD OF EDUCATION'S SEAL FOR EXCELLENCE IN CIVICS EDUCATION**

The Board of Education's Seal for Excellence in Civics Education shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) complete Virginia and United States History and Virginia and United States Government courses with a grade of "B" or higher; (ii) have good attendance and no disciplinary infractions as determined by local school board policies; and (iii) complete 25 hours of voluntary participation in community service or extracurricular activities. Activities that satisfy the requirements of clause (iii) of this subdivision include (a) volunteering for a charitable or religious organization that provides services to the poor, sick, or less fortunate; (b) participating in Boy Scouts, Girl Scouts, or similar youth organizations; (c) participating in JROTC; (d) participating in political campaigns or government internships, or Boys State, Girls State, or Model General Assembly; or (e) participating in school-sponsored extracurricular activities that have a civics focus. Any student who enlists in the United States military prior to graduation shall be deemed to have met this community service requirement.

## **BOARD OF EDUCATION'S SEAL FOR EXCELLENCE IN SCIENCE AND THE ENVIRONMENT**

Starting with students entering the ninth grade in 2018-2019: The Board of Education's Seal for Excellence in Science and the Environment shall be awarded to students who earn either a Standard Diploma or Advanced Studies Diploma and (i) complete at least three different first-level board-approved laboratory science courses and at least one rigorous advanced-level or postsecondary-level laboratory science course, each with a grade of "B" or higher; (ii) complete laboratory or field-science research and present that research in a formal, juried setting; and (iii) complete at least 50 hours of voluntary participation in community service or extracurricular activities that involve the application of science such as environmental monitoring, protection, management, or restoration.

## **SPOTSYLVANIA COUNTY PUBLIC SCHOOLS' SEAL OF ACADEMIC EXCELLENCE**

The Spotsylvania Seal of Academic Excellence is awarded to students that meet the criteria for the advanced diploma, and:

1. Take four years of a world language (four years of one or two years each of two different languages). These courses may be begun in middle school.
2. All English, mathematics, science, social studies and world language courses must be taken at the "advanced" or higher level where multiple levels are available (this requirement does not include AP and college level courses).
3. A total of at least three (3) AP, IB, or other college level courses from the available offerings must be successfully completed. Contact your school counselor for a more specific definition of criteria.

## **SPOTSYLVANIA COUNTY PUBLIC SCHOOLS' COMMUNITY SERVICE SEAL**

Students may earn the Spotsylvania County Public School's Community Service Seal on their diplomas by performing 144 hours of community service during their high school career. For specific information on what constitutes community service, pick up an information packet from the counseling office.

# Course Selection Information

## School Counseling Program and Services

Students are alphabetically (based on the student’s last name) assigned to a school counselor for the duration of their high school years. Parents are encouraged to participate in the development of the student’s program of studies that maps the route to the chosen diploma option and graduation. In addition to the annual academic planning and course selection sessions, counselors provide programs to all students through classroom guidance and small group and/or individual sessions on topics such as study skills, test taking strategies, decision making, and time management strategies. Counselors assist students and parents to address other issues that create challenges to academic success. Each high school counseling program offers workshops for students and parents designed to enhance orientation to academic success, awareness of the college admission process, scholarship and financial aid opportunities, and transitions after high school. Check the school newsletter, school website, and the school division’s website to learn more about the programs at each high school. School counselors may be contacted at each of the schools.

Chancellor High School	786-2606
Courtland High School	898-4445
Massaponax High School	710-0419
Riverbend High School	548-4051
Spotsylvania High School	582-3882
Spotsylvania Career & Technical Center	898-2655

## Library Services

The library is an integral part of the school program. Libraries circulate over 875,000 items annually. The library catalog, online databases, online encyclopedias, and ebooks are also available 24/7 through Destiny Library Manager. Spotsylvania County Public School students login to Destiny through the school website and logging in using their network login and password. In addition, librarians work with classroom teachers in all curriculum areas to support instruction and teach 21st century research skills.

### Academic Rigor

Students are encouraged to select rigorous courses that will provide an intellectual challenge and also will better prepare them for future courses and educational and/or career pursuits beyond high school. In considering students’ applications for admission, colleges and universities look closely at the number and the kind of advanced courses students have taken. The academic rigor can be a significant factor in a student being accepted by the college of his/her choice.

## The Commonwealth Governor’s School

The Commonwealth Governor’s School (CGS) provides gifted and highly-motivated high school students with a challenging, differentiated, and interdisciplinary program in science, mathematics, social sciences, and English. This half-day program utilizes real-time interactive audio/visual technology, field experiences, and team teaching to create a regional community of learners from Stafford, King George, Spotsylvania, and Caroline counties. The CGS curriculum is problem-based, student-oriented, and designed to focus on community issues of environment, development, and service. High-speed Internet access, desktop video conferencing, and e-mail enables students to reach worldwide resources for special interest projects and in-depth research. Students participate in electives and activities at their home-based high school. Visit the CGS website at [www.cgs.k12.va.us](http://www.cgs.k12.va.us) or see the gifted coordinator for application information.



## The Commonwealth Governor's School Courses

### English

Honors English 9 (1131G)

Honors English 10 (1141G)

Advanced Placement English Language and Composition (1196G)

Advanced Placement English Literature and Composition (1195G)

### Social Studies

Advanced Placement European History (2399G)

Advanced Placement U.S. Government (2445G)

Advanced Placement U.S. History (2319G)

Advanced Placement Human Geography (2211G)

### Mathematics

Honors Algebra II (3135G)

Honors Geometry with Trigonometry (3143G)

Honors Math Analysis with Discrete Topics (3162G)

Advanced Placement Calculus BC (3178G)

Advanced Placement Statistics (3192G)

### Science

Advanced Placement Environmental Science (4270G)

Advanced Placement Biology (4370G)

DE Chemistry (4420G)

Advanced Placement Physics B (4570G)

## Early College Scholars

The Early College Scholars Program allows eligible high school seniors to complete their high school diploma and concurrently earn at least 15 hours of transferable credits toward a college degree, resulting in a more productive senior year and reducing the amount of college tuition for families. Eligibility: Students should have a "B" (3.0 GPA or higher) average, be pursuing an Advanced Studies diploma, be completing or have completed college level course work (Dual Enrollment, Advanced Placement, or International Baccalaureate courses) that will earn at least fifteen transferable college credits. Students can contract to become an Early College Scholar beginning in grade 9. See your counselor for a contract and more information.

## Advanced Placement Program

The Advanced Placement (AP) Program provides students with the opportunity to pursue college-level studies while still in high school and to receive advanced placement credit when entering college.

Academically-oriented students are strongly encouraged to participate in the Advanced Placement Program offered in each high school.

Advanced Placement (AP) courses follow the suggested College Board course descriptions and serve to prepare students for the AP examinations in May. In addition to preparing students for the AP exam, AP courses allow students to experience the pace and intensity of college-level courses while still in high school. Some AP courses may provide opportunities for students to work in teams on interdisciplinary themes or projects. Such activities are designed to provide students the opportunity to solve real-world problems across AP subject areas. The AP courses are challenging and stimulating, require more work and more time than other high school courses, but are ranked by former AP students as the most valuable experience of the high school education.

The Advanced Placement examinations, provided and graded by the College Board, are administered each year during the 1st and 2nd weeks of May. Usually three hours in length, each exam consists of a multiple choice section and a free-response section that requires essay writing or problem solving. Every examination receives an overall grade from a team of carefully selected college professors and high school AP teachers on a five-point scale:

5 (extremely well-qualified)  
4 (well-qualified)  
3 (qualified)  
2 (possibly qualified)  
1 (no recommendation)

An AP Grade Report is available online in July to each student, the high school, and if the student requests it, to the college. All enrolled AP students are encouraged to take AP course examinations. Financial assistance for the cost of the AP exams may be available for students in need on a school-by-school basis.

## Advanced Placement Capstone

AP Capstone is an additional diploma that is offered through the College Board. In order to earn this diploma, students take AP Seminar in the 10th or 11th grade, followed by AP Research. Students who earn scores of 3 or higher in AP Seminar, AP Research and on four additional AP Exams of their choosing will receive the AP Capstone Diploma. This signifies outstanding academic achievement and attainment of college-level academic and research skills. Alternatively, students who earn scores of 3 or higher on exam in AP Seminar and AP Research will receive the AP Seminar and Research Certificate signifying their attainment of college-level academic and research skills.

### Virtual Virginia

This is an online, fee-based program developed in conjunction with former Governor Warner's Early College Scholars Initiative. Spotsylvania County students may enroll if an AP class is not offered at their school due to low student enrollment requests. Information is available online and from the school counselor.

## Credit Recovery

The E-Credit Recovery option is for a select group of students who need course credit to earn a Standard or Advanced Studies diploma. To be eligible for enrollment in an E-Credit Recovery course, a student must meet certain requirements.

Prerequisites:

- Previous completion of the course yet earned a failing grade
- has the ability to succeed in an online course
- obtains teacher recommendation
- obtains administrator or designee approval

## College Credit for Advanced Placement Classes

Although each college determines which AP examination grades it will accept for credit and/or advanced placement, the majority of colleges accept grades of 3 or better and award the student credit in the subject matter tested. In some cases, no credit is given, but the student begins the program of study at an advanced level.

Many colleges will grant sophomore standing to a student who presents acceptable scores on three or more AP examinations. Students wanting to know what AP scores are considered acceptable by the colleges in which they are interested should contact the Director of Admissions of the college or consult with their school counselor. The Advanced Placement Program in SCPS consists of the following courses:

AP English Lang/Comp	AP Music Theory
AP English Lit/Comp	AP French
AP German	AP Latin
AP Spanish	AP Calculus
AP Statistics	AP Computer Science
AP Biology	AP World History
AP Government	AP U.S. History
AP Chemistry	AP European History
AP Physics	AP Studio Art
AP Psychology	AP Human Geography
AP Seminar	AP Research
AP Environmental Science	

## CLEP: College Level Examination Program

Developed by the College Board, the people behind AP and SAT, the College-Level Examination Program (CLEP) has been the most widely trusted credit-by-examination program for over 40 years, accepted by 2,900 colleges and universities and administered in over 1,800 test centers.

## International Baccalaureate Diploma Programme (IB DP)

The IB DP is a rigorous, academically challenging and balanced two-year program of education designed to prepare students aged 16 to 19 for success at university and in life beyond. The IB DP provides opportunities to develop both interdisciplinary knowledge and understanding that meet rigorous standards. IB DP encourages inquiry, caring, open-mindedness, intercultural understanding, and the attitudes necessary to respect and evaluate a range of viewpoints.

## College Credit through Dual Enrollment Courses

Dual Enrollment is a unique enrichment program in which high school junior and senior students are given the opportunity to take college courses in their own high school through Germanna Community College's program. Students earn college credits while completing their high school requirements. Students

must maintain both attendance and grade requirements set by the college in order to receive credit. Credits transfer to Virginia Community Colleges and most colleges and universities. Courses are taught by high school instructors who have the qualifications to teach at the college level. Interested students should discuss dual enrollment options with their high school counselors.

Prospective students will be required to complete college enrollment documents prior to admission. Qualifying students register through the high school in spring and pay the tuition to the high school at the beginning of the school year.

**Early College Pathway through Germanna Community College**

The Early College Pathway is an academic advancement plan in which high school students can earn a General Studies Associate Degree (62 credits) or a General Education Certificate (33 credits) concurrently. The Early College curriculum includes a distribution of general education courses which are usually required in the first two years of many baccalaureate programs. Credit awarded for applicable dual enrollment courses, joint enrollment college courses taken on campus, Advanced Placement or IB courses with qualifying exam scores of three or higher, or qualifying International Baccalaureate scores may be applied toward attainment of the aforementioned credentials. Early College students can take full advantage of Germanna’s tutoring, library resources, advising, and other support services. The Early College Pathway varies among school divisions, depending on their Dual Enrollment/Advanced Placement/ International Baccalaureate offerings. Students interested in the pathway are encouraged to speak with a school counselor at their high school or contact an academic counselor at GCC for additional information.

Students must follow the Steps for Admission for GCC’s Early College and are required to complete an Early College Orientation session on campus at GCC prior to enrollment. The curriculum begins with on-campus courses in the summer prior to junior year. Prospective Early College students are strongly urged to acquaint themselves with the requirements of the college or university to which transfer is contemplated

and to consult with an advisor at the four-year institution for further transfer assistance prior to entering the Early College Pathway. Each four-year college or university will make its own determination regarding the transfer status of Early College students.

**Course Load**

Students are to be full-time enrolled and scheduled in classes that total at least five units of credit. Any exceptions must be approved by the Superintendent or his/her designee. High school principals will require that any senior whose parent or guardian requests early release must have already passed all the SOL End-of-Course tests required for the chosen diploma option before the principal will recommend early release. Students enrolled in Cooperative Education classes such as marketing or business will be given early release to meet requirements associated with the course. (School Board Policy IHD)

**Grades & Promotion**

Grade level classification is based on the total number of units of credit accumulated as follows:

Freshman .....	0-4 units
Sophomore .....	5 units
Junior .....	10 units
Senior.....	15 units and/or eligible for graduation

**High School Subjects Taken in Middle School**

If a middle school student successfully completes a high school credit course, the credit earned is counted for the specified subject required for graduation, and for meeting the total number of units required for graduation. The grades earned are included when calculating the student’s grade point average.

**Schedule Adjustments**

Students and parents are encouraged to make all course request changes as soon as the need for the change is apparent. Since the master schedule for each high school is created in late spring based on student requests and staff availability, changes after the end of the school year may be more difficult to obtain.

Counselors review student requests and make schedule adjustments prior to the opening of school when one or more of the following circumstances occur:

- failure of a course which is a clerical error
- change in the student's educational plan
- balancing of class sizes
- requested course has low enrollment and will not be offered.

## Dropping Courses

The Spotsylvania County Schools grading scale for high school students is:

A = 90-100  
B = 80-89  
C = 70-79  
D = 60-69  
F = Below 60

There will be no record made on the permanent record form of courses dropped during the first fourteen (14) weeks of a full year course and during the first seven (7) weeks for a semester course. After this period, withdrawal from a course will be considered as a WP or WF and a failure (F) will be figured into the grade point average. Exceptions to this procedure may be made by the principal in the case of student hardship.

## Auditing a Course

A student may decide to audit a course to gain increased subject mastery or to improve the course grade. A course can be taken as an audit only if the student has completed the course, received a passing grade, and earned a credit. The student will not receive a credit for the audited course; however, the highest grade earned will be calculated into the student's cumulative GPA. Serious consideration must be given to the decision to audit a course. Auditing a course is usually beneficial if the student earned a low grade, passed the course but did not pass the SOL, or if the student took the course and received credit in a different school system where the curriculum did not align with Spotsylvania County Public Schools. The impact of an audited course on the cumulative GPA and the student's educational plan must be evaluated. The parent must submit a written request to the school counselor for the course audit. After review of the educational plan, the counselor will advance the request to the school principal for final decision.

## Transfer Credits - Earning Credit for Courses Taken from:

- **Approved Online & Correspondence Programs**  
A high school student and parent may apply in writing to the high school principal requesting permission to enroll in an online or correspondence course for credit when it is appropriate for the completion of the student's educational plan. Parents are responsible for any fees and expenses charged by the course provider. Parents are directed to contact the school counselor in advance of making the written request to determine approval status of the online or correspondence program. Spotsylvania County Public Schools students may NOT take an online course for credit which requires an End-of-Course test unless the student has already passed the test and needs the course credit to complete the verified credit. A transcript from the virtual or correspondence school must be supplied to the high school counseling office on or before June 1 of the year in which the student desires the credit to be included on his or her official transcript. The grade earned will be recorded for GPA purposes according to county weighting requirements.
- **From Accredited Schools and Homeschooling**  
Upon receipt of an official transcript from the student's previous school, the counselor will review the courses taken and accept credits earned from accredited secondary schools in other school divisions. Courses accepted to meet Virginia graduation requirements must be those recognized as such by the Virginia Department of Education. Course credit may be accepted as elective credit instead of a required course when the course does not align with Spotsylvania County courses. Course credits and grades are converted to reflect a fair comparison to the Spotsylvania County Public Schools grading scale. Only credits earned in AP courses, IB courses, and Dual Enrollment will carry a weighted quality credit value. Students who wish to enroll in post-secondary programs before graduation from high school may be awarded course credit leading to high school graduation if it is part of the student's educational plan. However, prior approval must be granted by the principal, and the course must be given by the college for degree credit.



- **From Non-Accredited Schools & Non-Accredited Homeschooling**  
Spotsylvania County Public Schools reserves the right to determine credit and appropriate grade level placement of students transferring from non-accredited private schools or non-accredited home instruction programs. This determination will be based on available transcripts of past academic work, standardized test scores, and tests administered by Spotsylvania personnel. The student will be required to take a Course Mastery Examination for the subject. Examinations will only be given in courses which the student can verify that he/she has taken in private school or through home instruction. For sequential courses such as English and math, if the student cannot successfully pass those examinations, they will be required to take the examinations of courses taken previously.

### **National Collegiate Athletic Association Eligibility Requirements**

The NCAA has established a central clearinghouse to certify athletic eligibility to Division I and II institutions. Students who intend to participate, with or without a scholarship, as a freshman in college, must register with, and be certified as eligible by, the NCAA Initial-Eligibility Center. Initial-eligibility certification pertains only to NCAA requirements for participation in Division I or II athletics and has no bearing on student admission to a particular Division I or II institution. It is best to register after the junior year grades have appeared on the transcript in mid-June. Registration materials may be obtained from the high school counselor.

Information about NCAA eligibility can be obtained by the student-athlete and parents in several ways:

- Website at [www.eligibilitycenter.org](http://www.eligibilitycenter.org)
- Hotline at 800.638.3731 for copy of "Guide for the College-Bound Student Athlete."
- NCAA Eligibility Center at 877.262.1492. Office hours are 8:00 a.m. to 5:00 p.m. Central Time, Monday through Friday.

### **Grade Point Average & Class Rank**

The GPA (Grade Point Average) is obtained by:

1. All high school courses and courses attempted prior to the ninth grade which are considered to be high school courses (Algebra I, Spanish I, etc.) are included in the GPA.

2. Each letter grade is assigned a number of quality credit points:

Non-Weighted 4.5 Scale

98-100 = A = 4.50

95-97 = A = 4.25

90-94 = A = 4.00

88-89 = B = 3.75

86-87 = B = 3.50

84-85 = B = 3.25

80-83 = B = 3.00

78-79 = C = 2.75

76-77 = C = 2.50

74-75 = C = 2.25

70-73 = C = 2.00

68-69 = D = 1.75

66-67 = D = 1.50

64-65 = D = 1.25

60-63 = D = 1.00

59 or less = F = 0

Weighted 5.5 Scale

98-100 = A = 5.50

95-97 = A = 5.25

90-94 = A = 5.00

88-89 = B = 4.75

86-87 = B = 4.50

84-85 = B = 4.25

80-83 = B = 4.00

78-79 = C = 3.75

76-77 = C = 3.50

74-75 = C = 3.25

70-73 = C = 3.00

68-69 = D = 2.75

66-67 = D = 2.50

64-65 = D = 2.25

60-63 = D = 2.00

59 or less = F = 0

The subjects listed below are designated as weighted courses:

- Advanced Placement classes
- IB courses (11th & 12th grade)
- Dual Enrollment classes

\*Weighted Courses transferred from other school divisions that do not correspond with this list will not receive weighted credit in Spotsylvania County Public Schools.

3. The points obtained for the final grade in each course are added and then divided by the total number of credits attempted to arrive at the cumulative GPA.
4. Audited Courses (courses repeated in which credit has been previously earned) do not grant credit, but the quality points are included in the GPA calculation.
5. When a course is failed and subsequently repeated, both grades are counted towards the GPA.
6. GPA is calculated for each student at the end of each school year. For seniors, an additional GPA calculation is made at the end of the first semester.
7. Rank in class: After calculation of the GPA for all students, students are ranked within their class according to that figure.

### Services for Gifted Students

In the ninth through the twelfth grades, gifted students in each high school are offered services through an academic year governor's school, advanced classes, Advanced Placement classes, Dual Enrollment, college/university classes, interdisciplinary classes, independent study, appropriate seminars/internships, and counseling services. A member of the staff at each high school coordinates services for gifted students.

### Special Education Services

Special education services are offered for students with special needs who have been evaluated and identified as having a disability and determined to be in need of special education. Coursework and accommodations are designed to meet the emotional, academic, and/or physical needs of students with disabilities. All coursework is then adapted according to the unique needs of each child and in accordance with his/ her Individualized Education Program (IEP).

### Summer School

A summer school program is offered each year in Spotsylvania County Public Schools. Students who have failed a course during the regular year may repeat that course in summer school if the course is offered. Unlike the regular school year, a tuition fee is charged for all students in summer school. To qualify for attendance in a repeat course, a student may have missed no more than 15 days in the course during the regular school year or needs to have earned at least a 50% in the course. Individual cases not meeting this

criteria will be reviewed by the building principal. Specific information about courses and location of the summer school program is announced and available in the school counseling offices and on the website in the spring of each year.

## High School Course Offerings

### ENGLISH

English Grade 9  
 Honors English Grade 9  
 English Grade 10  
 Honors English Grade 10  
 English Grade 11  
 Honors English Grade 11  
 Dual Enrollment College Composition  
 Dual Enrollment College Literature  
 Advanced Placement English Language & Composition 11  
 English Grade 12  
 Honors English Grade 12  
 Advanced Placement English Literature & Composition 12  
 IB English Language and Literature  
 IB Theory of Knowledge  
 Journalism I  
 Journalism II  
 Journalism III  
 Journalism IV  
 Yearbook Production  
 Photojournalism  
 Creative Writing I  
 Creative Writing II  
 Humanities  
 Debate  
 Reading Across the Content  
 Advanced Placement Seminar  
 Advanced Placement Research

### FINE ARTS

Art I  
 Art II  
 Art III  
 Art IV  
 Art Seminar  
 Advanced Placement Studio Art  
 IB Visual Arts  
 Sculpture I  
 Sculpture II  
 Dance I  
 Dance II  
 Theatre Arts I  
 Theatre Arts II

Theatre Arts III  
 Theatre Arts IV  
 Technical Theatre I  
 Technical Theatre II  
 Technical Theatre III  
 Theater Seminar  
 IB Theatre Arts  
 Band Class  
 Percussion Class  
 Concert Performance Band I/II  
 Symphonic Performance Band I/II  
 Performance Jazz Band I/II  
 Introduction to Music Technology  
 Advanced Music Technology  
 Beginning Strings  
 Concert Performance String Orchestra I/II  
 Symphonic Performance String Orchestra I/II  
 Tenor Bass Choir/Treble Choir I/II  
 Concert Chorus I/II  
 Contemporary Ensemble  
 Select Tenor Bass Choir/Select Treble Choir I/II  
 Vocal Ensemble I/II  
 Music Theory  
 Advanced Placement Music Theory  
 IB Music

## **WORLD LANGUAGES**

French I  
 French II  
 French III  
 French IV  
 French V  
 Advanced Placement French  
 IB French  
 German I  
 German II  
 German III  
 German IV  
 German V  
 Advanced Placement German  
 IB German  
 Latin I  
 Latin II  
 Latin III  
 Latin IV  
 Latin V  
 Advanced Placement Latin  
 IB Classical Languages  
 Spanish I  
 Spanish II

Spanish for Native & Heritage Speakers I & II  
 Spanish III  
 Spanish IV  
 Spanish V  
 Advanced Placement Spanish  
 IB Spanish  
 American Sign Language I  
 American Sign Language II  
 American Sign Language III

## **ESOL**

English for Speakers of Other Languages I  
 English for Speakers of Other Languages II  
 English for Speakers of Other Languages III  
 English for Speakers of Other Languages IV  
 English for Speakers of Other Languages V

## **HEALTH AND PHYSICAL EDUCATION**

Health and Physical Education Grade 9  
 Physical Education and Driver's Ed Grade 10  
 Strength and Conditioning  
 Recreation and Wellness

## **MATHEMATICS**

Algebra I  
 Algebra I, Part 1  
 Algebra I, Part 2  
 Geometry  
 Geometry, Part 1  
 Geometry, Part 2  
 Algebra Functions and Data Analysis  
 Algebra II  
 Honors Algebra II  
 Applied Mathematics: Modeling and Functions  
 Advanced Placement Pre-Calculus  
 Dual Enrollment Pre-Calculus  
 Dual Enrollment Calculus  
 Computer Mathematics (C++)  
 Statistics and Probability  
 Advanced Placement Statistics  
 Advanced Placement Calculus AB  
 Advanced Placement Calculus BC  
 Advanced Placement Computer Science Principles  
 Advanced Placement Computer Science (JAVA)  
 IB Mathematics Analysis and Approaches  
 IB Math Applications and Interpretations

## **SCIENCE**

Environmental Science  
Earth Science  
Honors Earth Science  
Earth Science II: Advanced Topics  
Advanced Placement Environmental Science  
IB Environmental Systems and Societies SL  
Biology  
Honors Biology  
Advanced Placement Biology  
IB Biology  
Biology II - Seminar  
Chemistry I  
Chemistry II  
Advanced Placement Chemistry  
IB Chemistry  
Physics  
Advanced Placement Physics 1  
Dual Enrollment Physics  
Advanced Placement Physics II  
Human Anatomy and Physiology  
Earth Science II: Oceanography

## **HISTORY & SOCIAL SCIENCES**

World Geography  
Advanced Placement Human Geography  
World History 1500 AD (C.E.) to Present  
Advanced Placement World History  
Virginia and United States History  
Advanced Placement United States History  
Virginia and United States Government  
Advanced Placement United States Government  
Dual Enrollment Western Civilization  
Advanced Placement European History  
IB History  
Psychology  
Advanced Placement Psychology  
IB Psychology  
Sociology  
African American History  
Latin American History  
Criminal Justice  
21st Century Global Issues

## **CAREER & TECHINICAL EDUCATION**

### **AGRICULTURAL EDUCATION**

Introduction to Animal Science  
Small Animal Care  
Agri-Business  
Advanced Agri-Business

Horticulture Production  
Greenhouse Operations

## **BUSINESS AND INFORMATION TECHNOLOGY**

Information Technology Fundamentals (8th grade ONLY)  
MOS I  
MOS II  
Design, Multimedia and Web Technologies I  
Design, Multimedia and Web Technologies II  
Economics & Personal Finance  
Business Management  
IB Business Management  
Cybersecurity Fundamentals  
Cybersecurity Networking Defense Operations  
Advanced Cybersecurity Networking Defense Operations  
IB Information Technology in a Global Society

## **EDUCATION & TRAINING**

Dual Enrollment Teachers for Tomorrow I  
Dual Enrollment Teachers for Tomorrow II

## **FAMILY AND CONSUMER SCIENCES**

Individual Development  
Intro to Culinary Arts  
Child Development and Parenting  
Introduction to Hospitality, Tourism, and Recreation

## **MARKETING EDUCATION**

Marketing Exploration  
Fashion Marketing  
Sports and Entertainment Marketing  
Marketing  
Advanced Marketing  
Marketing Management

## **TECHNOLOGY EDUCATION**

Manufacturing Technology  
Construction Technology  
Technical Drawing and Design  
IB Design and Technology  
Architectural Drawing and Design  
Engineering Drawing and Design  
Engineering Exploration  
Engineering Studies



## **TRADE & INDUSTRY PROGRAM COURSES**

### **CONSTRUCTION/MECHANICAL TRADES**

Carpentry I  
Carpentry II  
Electricity I (Residential Wiring)  
Electricity II (Residential Wiring)  
Electricity III  
Heating, Ventilation, Air Conditioning  
& Refrigeration (HVAC/R) I  
Heating, Ventilation, Air Conditioning  
& Refrigeration (HVAC/R) II

### **INFORMATION TECHNOLOGIES COURSES**

Computer Systems Technology I  
Computer Systems Technology II

### **MASS COMMUNICATION COURSES**

Introduction to Video Production  
Advanced Video Production

### **TRANSPORTATION COURSES**

Auto Collision Repair I  
Auto Collision Repair II  
Automotive Service Technology I  
Automotive Service Technology II

### **PERSONAL SERVICES COURSES**

Cosmetology I  
Cosmetology II

### **DRAFTING, DESIGN & CAD**

Drafting, Design, and CAD I  
Drafting, Design, and CAD II Mechanical  
Drafting, Design, and CAD II Architectural

### **WELDING**

Welding I  
Welding II

## **FAMILY & CONSUMER SCIENCES**

Culinary Arts I  
Culinary Arts II  
Baking and Pastry Specialization  
Early Childhood Education I  
Early Childhood Education II  
Hospitality, Tourism and Recreation I  
Hospitality, Tourism and Recreation II

## **HEALTH, MEDICAL & PROTECTIVE SERVICES**

Veterinary Science I (DE option)  
Veterinary Science II (DE option)  
Dental Assistant I  
Dental Assistant II  
Medical Assistant I  
Medical Assistant II  
Dual Enrollment Health Care Technician

## **ADDITIONAL OPPORTUNITIES**

Independent Study  
Mentor Apprenticeship Program  
JROTC I  
JROTC II  
JROTC III  
JROTC IV

# High School Course Descriptions



## English

English 9, 10, 11, and 12 courses are sequential, required classes that are aligned to the current VA Standards of Learning and are designed to develop student literacy skills necessary for continuing educational, professional, and personal progress beyond high school. The courses emphasize the integration of reading literary, nonfiction, and informational texts, writing for diverse audiences and purposes, and fostering research, communication, and collaboration skills. Honors English 9, 10, 11, and 12, Advanced Placement English, and the English courses in the International Baccalaureate and Dual Enrollment programs are rigorous, challenging programs of study designed to strengthen students' critical and analytical language skills. High school students also have the opportunity to extend their study and pursue interests through various English electives.

### English Grade 9

**Course #:** 1130B

**Recommended:** Grade 9

**Credit:** 1 Unit

A variety of literature will be discussed and analyzed to include works of various classic and contemporary authors. Knowledge of literary terms and genres will be applied in the student's own writing and in the analysis of literature. Writing will encompass narrative, expository, and persuasive forms for a variety of purposes and audiences. Students will expand their knowledge of vocabulary, grammar, oral presentations, research skills, technology use, and media literacy.

### Honors English Grade 9

**Course #:** 1130A

**Recommended:** Grade 9

**Credit:** 1 Unit

**Prerequisites:** Passing score on Grade 8 Reading & Writing SOL

This course is designed for students who demonstrate the capacity and motivation to complete accelerated work beyond the expected level for the grade. Writing will focus on drafting and revising descriptive, narrative, expository, persuasive, and analytical essays. Literature study will explore themes of various classic and contemporary authors. Students will learn to analyze fiction beyond the literal level, to search for abstract meaning, and to apply the ideas studied to their own lives. The course will further expose students to multiple modes of communication.

### English Grade 10

**Course #:** 1140B

**Recommended:** Grade 10

**Credit:** 1 Unit

**Prerequisites:** English Grade 9

Students will read and analyze literary texts from a variety of eras and cultures. Attention will be given to the analysis of nonfiction texts. The development of expository, persuasive, narrative, and descriptive writings will be included, although emphasis will be placed on analytic writing. Students will continue to expand the development of vocabulary, research and presentation skills, and grammar knowledge. They will also examine, analyze, and produce media messages.

### Honors English 10

**Course #**1140A

**Recommended:** Grade 10

**Credit:** 1 Unit

**Prerequisites:** English Grade 9

Through the study of literature and use of critical thinking skills, students will recognize the universality of literary themes and heighten their appreciation of well-written works. Students are exposed to a wider variety of writing than in English 10, with an emphasis on persuasive and analytic writing. They will also expand their knowledge of vocabulary, grammar, research skills, technology use, and media literacy.

### English Grade 11

**Course #**1150B

**Recommended:** Grade 11

**Credit:** 1 Unit

**Prerequisites:** English Grade 10

Students will study and analyze the relationships among American literary themes, characterizations, culture, and history. They will read a variety of fiction and non-fiction texts with an emphasis on citing textual evidence while comprehending, drawing conclusions, and making inferences. Concentrating on argumentation, students will develop clear and accurate personal, and professional writing skills. Students will locate appropriate sources of information, evaluate them for bias, and synthesize them into their own writing or presentations.

### Honors English Grade 11

**Course #**1150A

**Recommended:** Grade 11

**Credit:** 1 Unit

**Prerequisites:** English Grade 10

Emphasis will be placed on the development of critical thinking skills, the use and evaluation of research materials, and the study of literature as an art and component of a culture. The Honors English 11 student will write in various forms and modes, speak expressively and articulately before a group, and continue to develop an extensive and versatile vocabulary. Literature read will represent major American authors, genres, movements, or stylistic devices.

### **Dual Enrollment College Composition (ENG 111-112)**

**Course #1177**

**Recommended: Grade 11**

**Credit: 1 Unit (also transferable college credit hours (6) with a grade of 70 or better each semester)**

**Prerequisites: English Grade 10 + Germanna entrance requirements**

**Note: Fee required**

This course is a Germanna Community College (GCC) course taught in high school. GCC entrance and tuition requirements must be met. Through the writing process, students will refine topics; develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. In accordance with GCC requirements, 80% of the student's grade will come from writing assignments. Credits typically transfer to all Virginia Community Colleges and most colleges. Summer assignments may be required.

### **Dual Enrollment College Literature (ENG 245-246)**

**Course #: 1185**

**Recommended: Grade 12**

**Credit: 1 Unit (also transferable college credit hours (6) with a grade of 70 or better each semester)**

**Prerequisites: Completion of ENG 111-112 + Germanna entrance requirements**

**Note: Fee required**

Dual Enrollment College Literature offers two Germanna Community College (GCC) courses taught in high school. GCC entrance and tuition requirements must be met. Students will study the major English works from the Anglo-Saxons to present as well as American literary texts from diverse time periods, genres, and authors. Students will analyze literary works within their historical, cultural, social, and/or literary contexts. They will develop critical thinking and interpretive skills through discussion, interpretation, and analysis of these texts. Summer assignments may be required. Students are required to earn a 70 or better during the first semester to continue in the second semester portion of the course.

### **Advanced Placement English Language and Composition 11**

**Course #1196**

**Recommended: Grade 11**

**Credit: 1 Unit**

**Prerequisites: English Grade 10**

In this course, students will write about a variety of subjects, with emphasis on expository, analytical, narrative, and argumentative forms. Additionally, through careful reading and critical analysis, students will examine the rhetorical strategies and stylistic choices made by writers. Students will learn to read sources carefully, synthesize material from texts in their own compositions, and cite sources. Students participating in Advanced Placement classes are expected to take the College Board Exam, in addition to fulfilling all the requirements of the course.

### **English Grade 12**

**Course #1160B**

**Recommended: Grade 12**

**Credit: 1 Unit**

**Prerequisites: English Grade 11**

Students will analyze British literature and literature of other cultures by recognizing major literary forms and their elements. Additionally, students will analyze and synthesize nonfiction texts to solve problems. Students will demonstrate advanced knowledge of grammatical conventions through writing, editing, and speaking. Students will plan and deliver oral presentations as well as choose appropriate tone and language for the audience. They will extend their knowledge of vocabulary, research skills, technology use, and media literacy. Persuasive/argumentative, analytic, and real-world writing will be included in this course. Students will also produce a well-documented major research product by following ethical and legal guidelines.

### **Honors English Grade 12**

**Course #1160A**

**Recommended: Grade 12**

**Credit: 1 Unit**

**Prerequisites: English Grade 11**

Significant time will be devoted to the creation, development, and analysis of literary research writing. Literature selections include classics of British and world literature. Class discussion will emphasize the development of abstract reasoning which is required for analysis and interpretation of text. Opportunity will be provided for the organization and presentation of group and individual assignments. Students will also produce a well-documented major research product by following ethical and legal guidelines.

### **Advanced Placement English Literature and Composition 12**

**Course #1195**

**Recommended: Grade 12**

**Credit: 1 Unit**

**Prerequisites: English Grade 11**

This course will involve the study, analysis, and practice of both literature and composition. The study of literature will focus on challenging works of recognized literary merit from multiple genres and periods. In-depth expository, analytical, and argumentative essays will be required. Students will be expected to take the AP College Board Exam in addition to fulfilling all the requirements of the course. Summer assignments may be required.

### **IB English Language and Literature (HL)**

**Course #IB1150 & IB1160 Recommended: Grades 11-12**

**Credit: 1 Unit Per Course**

**Prerequisites: Honors English 9 & 10; Enrolled in IB program**

This course is a requirement for the IB Diploma Programme. In 11th grade, students focus on language

in mass media and analysis of poetry, memoirs, and plays. In the 12th grade, students focus on language in cultural context, as well as a critical and comparative study of the novel as a literacy genre. Required IB assessments include oral activities, written tasks, an oral commentary, and end-of-course exams that call upon the student to analyze and compare previously unseen texts as well as literacy works that have been read during the course. The course provides the possibility of college credit.

### **IB Theory of Knowledge**

**Course #IB1197 & IB1198 Recommended: Grades 11-12**

**Credit: 1 Unit Per Course**

**Prerequisites: Enrolled in IB program**

**Examination: Theory of Knowledge Exam**

This course will include embedded methodology and guided practice regarding the other two elements of the IB Core: Extended Essay (EE) and Creativity, Activity, and Service (CAS). Students will explore fundamental questions of epistemology by reflecting upon and questioning the basis of knowledge and experience, examining cultural and ideological bias, and by formulating rational arguments and value judgments of their own. Academic disciplines examined will include language, history, logic, science, mathematics, ethics and aesthetics. The course will include an externally assessed paper and internally assessed oral presentation.

### **Journalism I**

**Course #1200**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

In this course, styles and types of writing will be studied in detail with emphasis upon clarity, conciseness, and accuracy in communication. Through frequent writing assignments during the school year, students will develop proficiency in gathering information, journalistic writing, and editing. The study of the mechanics and technicalities of assembling and producing publications will also be taught. Students will understand the difference between ethics, laws, and policy in order to be successful writers and journalists. Students will hone interview skills to gather in-depth research for accurately written products.

### **Journalism II**

**Course #1210**

**Recommended: Grades 10-12**

**Credit: 1 Unit**

**Prerequisites: Journalism I**

In this course, students will participate in an in-depth study of layout and design. Emphasis will be placed on the development of clear and concise written communication through analysis of information, selection of facts and opinions, and techniques of editing and revision. Students enrolled in Journalism II must be prepared to participate in after-school publication activities for their high school newspaper/magazine.

### **Journalism III**

**Course #1211**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Prerequisites: Journalism II**

In this course, students will plan publications, edit work, and format layouts. Students will work collaboratively to create and oversee the production of the school newspaper/magazine. Students will continue to improve their journalistic style in concentrating on written communication for various publications. Students enrolled in Journalism III must be prepared to participate in after-school publication activities.

### **Journalism IV**

**Course #1212**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Prerequisites: Journalism III**

In this course, students will plan publications, edit work, and format layouts. Students will work collaboratively to create and oversee the production of the school newspaper/magazine. Students will continue to improve their journalistic style in concentrating on written communication for various publications. Students enrolled in Journalism IV must be prepared to participate in after-school publication activities.

### **Yearbook Production**

**Course #1220, 1221, 1222, 1223**

**Recommended: Grade 10-12**

**Credit: 1 Unit**

**Prerequisites: Staff Approval**

In this course, students will learn the publication process while assisting in the production of the high school yearbook. Computer-assisted layout and writing will be integral parts of the program. Students will be responsible for the development of the yearbook from planning to distribution of the completed publication. Students must be prepared to participate in after-school publication activities.

### **Photojournalism**

**Course #1215**

**Recommended: Grades 10-12**

**Credit: 1 Unit**

Students will learn basic camera handling as well as shooting and developing procedures to take correctly exposed and composed photographs. Digital photography, computer print processes, and programs will be utilized as well. Students should be prepared to provide some supplies, including film, and pay fees for darkroom materials. Students must have access to a 35 mm SLR camera or digital camera that is fully adjustable (school cameras may be available). Students should contact the school's photojournalism teacher for specific requirements prior to purchasing a camera.



## Creative Writing I

**Course #1171**

**Recommended: Grades 10-12**

**Credit: 1 Unit**

This course is designed for students who enjoy writing imaginatively and have demonstrated competence as writers. Imaginative writing will be explored to help develop an original voice and style. Students will learn and practice strategies to create, revise, polish, and adjust their writing to their needs and the requirements of various audiences. This is not a literature course; however, mentor texts are used as instructional models to improve writing skills.

## Creative Writing II

**Course #1172**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Prerequisites: Creative Writing I**

This course will provide students an opportunity to extend their interests and capabilities as imaginative writers. Using the concepts and techniques learned in Creative Writing I, students will continue to develop and practice advanced strategies for composing and revising, to experiment with sophisticated genres and literary techniques, and to develop their own unique voice and style of writing.

## Humanities

**Course #1515**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

This course will provide an overview of coursework in the humanities including art history, philosophy, archetypes, music, and cinema. Students will think about, discuss, respond, and connect to the ideas of authors, historians, artists, filmmakers, and philosophers from various eras and cultures. Students will develop effective strategies for collaboration and communication in writing, creative projects, and presentations.

## Debate

**Course #: 2996**

**Recommended: Grades 9-12**

**Credit: .5 Unit**

Students will learn the fundamentals of debating. Topics will include researching a subject in order to debate the pros and cons of the subject as well as preparing a presentation that is timely and includes poise, articulation, complex vocabulary and other desirable public speaking characteristics. Students will engage in debates within class.

## Reading across the Content

**Course #9840**

**Recommended: Grades 9-12**

**Credit: 1 Unit (one unit of credit is earned for each year taken)**

**Prerequisites: Teacher/Staff Recommendation**

This course is designed to specifically improve decoding, reading comprehension, vocabulary, and writing skills. Students will receive explicit instruction on strategic reading

of fiction and nonfiction texts. Strategies that will receive attention include: predicting, monitoring understanding, inquiry and reasoning, inferencing, visualizing, connecting, summarizing, and reflecting.

## Advanced Placement Seminar

**Course #1516**

**Recommended: Grades 10-12**

**Credit: 1 Unit**

Students will practice reading and analyzing articles, research studies, and foundational, literacy, and philosophical texts; listening to and viewing speeches, broadcasts and personal accounts; and experiencing artistic works and performances. Students will learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments. (This program is currently available at MHS and RHS).

## Advanced Placement Research

**Course #1518**

**Recommended: Grades 10-12**

**Credit: 1 Unit**

**Prerequisites: Advanced Placement Seminar**

Students will design, plan, and conduct a year-long research based investigation to address a research question. In the AP Research course, students will further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. The course will culminate in a substantive academic paper (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. (This program is currently available at MHS and RHS).



## Fine Arts

Visual Arts courses provide students with the opportunity to participate in sequential and non-sequential offerings and are designed to meet a variety of student interests. Generalized experiences, as well as highly advanced and specialized opportunities, are available. A credit earned in any of these courses fulfills the Career and Technical/Fine Arts credit requirement.

### Art I

**Course #9120**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Note: Lab Fee Required**

Art I is an exploratory course. Students will be exposed to

multiple art mediums in order to cultivate the appreciation and creation of art. Emphasis will be placed on learning to draw, on understanding art as a visual language, and on recognizing the relationship of art to other fields. Students will be expected to provide some of their own supplies (such as drawing pencils, erasers, sharpener, art pads, and colored pencils) for completing assignments.

## **Art II**

**Course #: 9130**

**Recommended: Grades 10-12**

**Credit: 1 Unit**

**Note: Lab Fee Required**

**Prerequisites: Art I**

In this course emphasis will be placed on students developing a personal style and skill in his/her art. Students will explore more in-depth topics, including but not limited to, conveying complex themes in art, studying figure drawing, demonstrating a broader color palette, utilizing a wide variety of painting techniques, and reflecting upon their evolution as an artist by participating in critique sessions. Continued exposure to various artists and their contributions to the history of art will be examined. Students will be expected to provide some of their own supplies (such as drawing pencils, erasers, sharpener, sketchbooks, and colored pencils) for completing assignments.

## **Art III**

**Course #: 9140**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Note: Lab Fee Required**

**Prerequisites: Art II, Portfolio Audition, Teacher Recommendation**

This course will emphasize the development of a personal style and a body of work to be used as a portfolio and/or to showcase at an annual art show. Students will be expected to be a part of a creative community, engaging in frequent critique and class discussions. Students must be self-directed in the completion and mastery of art media and the production of quality work. Students will be expected to provide some of their own supplies (such as drawing pencils, erasers, sharpener, sketchbooks, and colored pencils) for completing assignments.

## **Art IV**

**Course #: 9145**

**Recommended: Grade 12**

**Credit: 1 Unit**

**Note: Lab Fee Required**

**Prerequisites: Art III, Portfolio Audition, Teacher Recommendation**

Art IV is an in-depth study of art techniques specifically designed for the student. The course will emphasize students developing their own style and experimentation with different materials and methods. Students will be expected to provide some of their own supplies (such as drawing pencils, erasers, sharpener, sketchbooks, and colored pencils) for completing homework assignments.

## **Art Seminar**

**Course #: 9196**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Note: Lab Fee Required**

**Prerequisites: Enrollment in Art II or IV and Teacher Recommendation**

Art Seminar will allow a motivated art student to pursue in-depth art experiences under the supervision of the teacher. Serious art students will further complete their portfolio and prepare for post high school art studies. Students will be expected to provide some of their own supplies (such as drawing pencils, erasers, sharpener, sketchbooks, and colored pencils) for completing assignments.

## **Advanced Placement Studio Art**

**Course #: 9149 2-D Design, 9150 Drawing Portfolio**

**Recommended: Grade 12**

**Credit: 1 Unit per course (possible college credit with appropriate score on AP exam)**

**Prerequisites: Art III, teacher recommendation, and portfolio evaluation**

**Note: Lab fee and portfolio evaluation fee required**

**Examination: Advanced Placement Test**

Advanced Placement Studio Art is a rigorous college-level course which requires the production of an extensive portfolio. Students who enroll in Advanced Placement Studio Art should do so with the understanding that they plan to participate in Advanced Placement evaluation. Students will be expected to provide some of their own supplies (such as drawing pencils, erasers, sharpener, sketchbooks, and colored pencils) for completing assignments.

## **IB Visual Arts (HL/SL)**

**Course #: IB9194 & IB9195**

**Recommended: Grades 11-12**

**Credit: 1 Unit per course**

**Prerequisites: Art I & II, admittance to IB program**

**Examination: IB Visual Arts Exam**

This course will provide opportunities to develop the aesthetic, imaginative, and creative faculties as well as to train visual, perceptual, and critical awareness of arts of various cultures. Students will compare and analyze artwork and artists, create a portfolio that demonstrates intensive concentration in studio work and/or research in preparation for their exhibition, external assessment. A selection from the exhibition which demonstrates technical skill and personal voice through visual communication along with a written curatorial rationale will be submitted. This culminating IB assessment provides the possibility of college credit.

## Sculpture I

Course #: 9121

Recommended: Grades 10-12

Credit: 1 Unit

**Prerequisites:** Art I or teacher recommendation

Students will discover the connections between sculpture and other art disciplines as they relate specifically to three-dimensional art. Students will gain knowledge in additive, subtractive, and assemblage techniques as sources of construction. Basic techniques of construction are introduced. Students will utilize a wide variety of materials in the works created. Students will explore the works of professional sculptors. Students will develop a sculpture portfolio.

## Sculpture II

Course #: 9122

Recommended: Grades 11-12

Credit: 1 Unit

**Prerequisites:** Sculpture I or teacher recommendation

Techniques of construction will build on Sculpture #1. The course will address historical and aesthetic aspects of sculpture with emphasis on the development of a personal visual vocabulary and the cultivation of individual creative expression. Students will create artistic solutions that clearly express the understanding of principles of design and visual thinking while demonstrating an understanding of tools, materials, techniques, and processes.



## Dance

### Dance I

Course #: 1450

Recommended: Grades 9-12

Credit: 1 Unit

**Note:** This course offered at CHS only

Students will develop fundamental skills in dance through movement, technique, choreography, and creative expression. Selected dance forms surveyed in this course include ballet, jazz, modern, cultural and social dances. Students will cultivate dance vocabulary, study dance history, and develop improvisational and performance skills.

### Dance II

Course #: 1451

Recommended: Grades 10-12

Credit: 1 Unit

**Prerequisite:** Dance I or teacher recommendation (audition opportunity available)

**Note:** This course offered at CHS only

Students will focus on body awareness as it relates to dance technique. The course will explore movement manipulation as it relates to beginning choreography. In addition to dance technique, students will gain an understanding of nutrition and wellness. The course will also build upon cultural and world dances that were introduced in Dance I.



## Theater

### Theatre Arts I: Introduction to Theatre

Course #: 1410

Recommended: Grades 9-12

Credit: 1 Unit

This course will provide students with a survey of theatre arts, allowing them opportunities to experience and appreciate dramatic literature and participate in the creative processes of performance and production. The course will emphasize skill development and provides theatrical opportunities that enable students to determine personal areas of interest.

### Theatre Arts II: Dramatic Literature & Theatre History

Course #: 1420

Recommended: Grades 10-12

Credit: 1 Unit

**Prerequisites:** Teacher recommendation and/or audition

Students will be scheduled upon receipt of the Theatre Arts Teacher's recommendation on the Audition Request Form. Through various modes of expression and performance, students will investigate dramatic literature, theatrical styles, and historical periods. Students will study and respond to a variety of theatre experiences that will refine their communicative, collaborative, analytical, interpretive, and problem-solving skills. Students will expand their artistic abilities and appreciation of the theatrical arts.

### Theatre Arts III: Intermediate Acting & Playwriting

Course #: 1423

Recommended: Grades 11-12

Credit: 1 Unit

**Prerequisites:** Teacher recommendation and/or audition

Students will be scheduled upon receipt of the Theatre Arts Teacher's recommendation on the Audition Request Form. Through various modes of expression and performance, students will investigate acting styles and the process of playwriting, which includes character development, research, dramatic structure, conflict and resolution, and will develop artistic criteria that will be applied to performance and directing. Students will study and respond to a variety of theatre experiences that will refine their collaborative, analytical, interpretive, and problem-solving skills. Students will deepen their artistic abilities and appreciation of the theatrical arts. Some plays and showcases may require after-school rehearsals.

## Theatre Arts IV: Advanced Acting & Directing

Course #: 1426

Recommended: Grade 12

Credit: 1 Unit

**Prerequisites:** Teacher recommendation and/or audition

Students will be scheduled upon receipt of the Theatre Arts Teacher's recommendation on the Audition Request Form. Through research, performance, and evaluation, students will develop artistic criteria that will be applied to performance and directing. Students will study and respond to a variety of theatre experiences showcasing their collaborative, analytical, interpretive, and problem-solving skills. Some plays and showcases may require after-school rehearsals.

## Technical Theatre I, II, and III

Course #: 1435, 1436, 1437 Recommended: Grades 10-12

Credit: 1 Unit

**Prerequisites:** Theatre Arts I and/or teacher approval

**Notes:** Health and Safety Contract required. Lab fee MAY be required (discuss with your school's theatre director).

Technical Theatre will help students apply and expand their knowledge of theatre design, production, and management. Students will develop problem-solving, communication, organizational, and management skills. Drawing on fine arts and other disciplines, they will work individually and collaboratively to explore the interrelated components of design, production, and management. Students will practice safe operating procedures, including the care, maintenance, and storage of tools, materials, and equipment.

## Theatre Seminar

Course #: 1440

Recommended: Grades 10-12

Credit: 1 Unit

**Prerequisites:** Audition/Portfolio, Interview, Theatre I, II, III or the equivalent

**Note:** This pilot course offered at ChHS & MHS only

Theatre Seminar focuses on the process of producing theatre works, including generating and refining ideas, practicing skills and techniques, revision, reflection, and collaboration. This course emphasizes opportunities for choice making that enhances students' abilities to think critically and creatively as artists. Theatre Seminar offers practical concentrated study in professional and collegiate audition and portfolio preparation. This course will culminate in the creation of an online portfolio, a professional promptbook, and a capstone project based on the students' area of interest.

## IB Theatre Arts (SL)

Course #: IB1432 & IB1433

Recommended: Grades 11-12

Credit: 1 Unit per course

**Prerequisites:** Theatre I & II, admittance to IB program

**Examination:** IB Theatre Arts Exam

Students will learn the major developments and techniques

in the theatrical history of other cultures. Becoming a better performer in front of an audience and the ability to interpret and illuminate play scripts and other theatrical texts analytically and imaginatively will also be an important part of this course. Research and the acquisition of sufficient technical skill will be included. Oral presentations, performing in a theatre production, and written work (including a portfolio) will be internally and externally assessed. This course will culminate with an IB external assessment that provides the possibility of college credit.



## Band

Music courses are designed to provide students with the opportunity to participate in sequential offerings designed to meet a variety of student interests and needs. Generalized experiences, as well as highly advanced and specialized opportunities, are available. A credit earned in any of these courses fulfills the Career and Technical/Fine Arts credit requirement.

Band classes are designed for students that play non-string instruments (woodwinds, brass, percussion). Grades will be determined on the basis of written and playing assessments, class participation, and concert performance. Students must furnish their own instruments (Some school-owned instruments are available for student use. Please check with directors for availability). Students are responsible for purchasing or renting appropriate concert attire.

### Band Class

Course #: 9232

Recommended: Grades 9-12

Credit: 1 Unit

This class will offer individualized and small group instruction on any instrument, except percussion, at the student's ability level. No concerts or events will be required of students enrolled in this class. The student must provide his/her own traditional concert band instrument and method books.

### Percussion Class

Course #: 9297

Recommended: Grades 9-12

Credit: 1 Unit

**Prerequisites:** Middle school band or director's recommendation

This class will offer individualized and small group instruction on all traditional percussion instruments. The student must provide his/her own snare drum, bell kit, and mallets for performing on timpani and mallet instruments and method books. Public performances will be at the discretion of the director.



### Concert Performance Band I/II

Course #: 9233, 9234

Recommended: Grades 9-12

Credit: 1 Unit (one unit of credit is earned for each year taken)

Prerequisites: Middle school band or director's recommendation

This course develops individual musicians and builds students as members of a musical group. Emphasis is placed on the development of intermediate level technical and ensemble skills necessary for performance. All students who elect to take this class will be required to play all music and participate in all concerts.

### Symphonic Performance Band I/II

Course #: 9241, 9242

Recommended: Grades 9-12

Credit: 1 Unit (1 unit of credit is earned for each year taken)

Prerequisites: Successful Audition

Emphasis is placed on the sequential development of advanced technical skills and on the study of related literature. Concerts of traditional and contemporary band works are prepared and performed. Small ensemble and solo work, as well as music theory and history, are components of this course. All students who elect to take this class will be required to play all music and participate in all concerts.

### Performance Jazz Band I/II

Course #: 9298, 9228

Recommended: Grades 9-12

Credit: 1 Unit (one unit of credit is earned for each year taken)

Prerequisites: Successful Audition

The emphasis in this advanced-level course is on performance techniques unique to jazz music and the history of jazz through the study of traditional and contemporary works. Some emphasis is given to music theory as it relates to improvisation. Students are involved in solo work and small ensembles. This course is based on the traditional size of a jazz band, or "Big Band", and is limited in size to the instrumentation needs of the group.

### Introduction to Music Technology

Course #: 9220

Recommended: Grades 10-12

Credit: 1 Unit

Prerequisites: Students must have completed at least 1 semester of a fine arts credit or teacher recommendation/audition

Note: This pilot course offered at SHS only

This course will prepare students to make music on a diverse array of platforms. This course will emphasize original music production, aural skills, and digital media. Daily lessons will include student creativity and cross-curricular music making. Large-scale creative projects will serve as benchmarks for class units and assessment.

### Advanced Music Technology

Course #: 9221

Recommended: Grades 11-12

Credit: 1 Unit

Prerequisites: Successful completion of Introduction to Music Technology

Note: This pilot course offered at SHS only

Students will gain hands on musical experience with digital sound production using: Logic proX, Garage Band, Soundtrap, Roli keyboards, MIDI controllers, live mixing and recording. Students explore advanced theory topics related to composition including: scale choice and construction, harmonic structure, harmonic progression, and musical form. Students will explore real world scenarios in which branding and marketing play a huge role in a musical production career. Students will professionally record and mix audio.



## Orchestra

Music courses are designed to provide students with the opportunity to participate in sequential offerings designed to meet a variety of student interests and needs. Generalized experiences, as well as highly advanced and specialized opportunities, are available. A credit earned in any of these courses fulfills the Career and Technical/Fine Arts credit requirement.

Orchestra classes are designed for students that play the violin, viola, cello, or bass. Grades will be awarded on the basis of class and concert performance. Students must furnish their own violin, viola, cello or bass, with larger instruments (cello and bass) provided for in-school use. Students are responsible for purchasing or renting appropriate concert attire.

### Beginning Strings

Course #: 9245

Recommended: 9-12

Credit: 1 Unit

In this course, emphasis is placed on mastering the skills necessary for the performance of Grade I - II string orchestra literature. Concerts of traditional and contemporary string orchestra works are prepared and performed. Small ensemble and solo work, as well as music theory and history, are components of this course. Thirty minutes of daily practice is expected.

### Concert Performance String Orchestra I/II

Course #: 9237, 9243

Recommended: Grades 9-12

Credit: 1 Unit (one unit of credit is earned each year taken)

Prerequisites: At least one year's worth of experience or director's recommendation.

In this course, emphasis is placed on mastering the

skills necessary for the performance of Grade II - IV string orchestra literature. Students participate in District Orchestra Assessment and All-County Orchestra auditions. Concerts of traditional and contemporary string orchestra works are prepared and performed. Small ensemble and solo work as well as music theory and history are components of this course. Thirty minutes of daily practice is expected.

### **Symphonic Performance String Orchestra I/II**

**Course #:** 9238, 9239      **Recommended:** Grades 9-12

**Credit:** 1 Unit (one unit of credit is earned for each year taken)

**Prerequisites:** Successful Audition at discretion of director

This is an advanced-level course functioning at the artist level in accordance with the Virginia Standards of Learning. Emphasis is on traditional and contemporary works for string orchestra at the Grade IV - VI level. Students continue participation in District Orchestra Assessment and All-County auditions. The group is limited in size based on the instrumental needs of the group. This course is for students who are serious about the study of instrumental music. Private lessons, while not required, are strongly encouraged for members of this ensemble. Students are expected to practice an average of 30 minutes per day.



Music courses are designed to provide students with the opportunity to participate in sequential offerings designed to meet a variety of student interests and needs. Generalized experiences, as well as highly advanced and specialized opportunities, are available. A credit earned in any of these courses fulfills the Career and Technical/Fine Arts credit requirement.

Chorus courses are designed to develop musicianship and healthy vocal production and to provide experiences in ensemble singing and sight-reading. Students will be scheduled into the non-auditioned course until the audition process is completed. Students are required to provide prescribed concert attire and are required to participate in after-school rehearsals and performances.

### **Tenor Bass Choir/Treble Choir I/II**

**Course #:** (I) 9260A/9262A, (II) 9261A/9263A

**Recommended:** Grades 9-12

**Credit:** 1 Unit (one unit of credit is earned for each year taken)

Emphasis will be placed on basic vocal techniques, ear training, and note learning. Choral balance, diction, and phrasing will be considered in all work. Choral students will be introduced to various styles of chorus music from madrigals to rock. Movement in music will be introduced at this level.

### **Concert Chorus I/II**

**Course #:** 9285, 9286

**Recommended:** Grades 9-12

**Credit:** 1 Unit (one unit of credit is earned for each year taken)

**Prerequisites:** Audition required

Emphasis will be placed on vocal techniques, ear training, and note learning. Choral balance, diction, and phrasing will be considered in all work. Movement in music will be integrated into the curriculum at this level.

### **Contemporary Ensemble**

**Course #:** 9287

**Recommended:** 9-12

**Credit:** 1 Unit

**Prerequisite:** Audition required

This is a performance-based class. Emphasis is placed on vocal techniques, ear training, and note learning. Choral balance, diction, and phrasing are considered in all work. Movement in music is integrated into the curriculum at this level.

### **Select Tenor Bass Choir/Select Treble Choir I/II**

**Course #:** (I) 9296A/9265A, (II) 9299A/9267A

**Recommended:** Grades 9-12

**Credit:** 1 Unit (one unit of credit is earned for each year taken)

**Prerequisites:** Audition required

Emphasis will be placed on vocal techniques, ear training, and note learning. Choral balance, diction, and phrasing will be considered in all work. Movement in music will be integrated into the curriculum at this level.

### **Vocal Ensemble I/II**

**Course #:** 9289, 9290

**Recommended:** Grades 9-12

**Credit:** 1 Unit (one unit of credit is earned each year taken)

**Prerequisites:** Audition required

Emphasis will be placed on vocal techniques, ear training, and note learning. Choral balance, diction and phrasing will be considered in all work. Students will be introduced to various styles of chorus music written for the smaller, more-select choral ensemble.

### **Music Theory**

**Course #:** 9222

**Recommended:** Grades 9-12

**Credit:** 0.5 Unit

Music Theory will expose students to the fundamentals of music theory and appreciation. This will include a study of intervals, scales, keys, triads, and chords and their working relation to one another. A survey of music history will be incorporated so that a better understanding and increased reference knowledge may be applied to newly-developed skills.

## Advanced Placement Music Theory

**Course #:** 9226

**Recommended:** Grades 11-12

**Credit:** 1 Unit (possible college credit with appropriate score on AP exam)

**Prerequisites:** Music Theory/Appreciation or Teacher recommendation

**Examination:** Advanced Placement exam

Students will develop the ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. Students will study fundamental aural, analytical, and compositional skills using both listening and written exercises. The course will progress to the harmonization of a melody by selecting appropriate chords, composing a musical bass line to provide two-voice counterpoint, and the realization of figured-bass notation. Students will be expected to provide their own workbook. Students who enroll in Advanced Placement Music Theory do so with the understanding that they intend to take the Advanced Placement exam.

## IB Music (SL)

**Course #:** IB9294

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisites:** AP Music Theory and Admittance to IB program

**Examination:** IB Music exam

Students must be concurrently enrolled in a performance class. This two-year course will include the study of all music, including western and world music, and covers the material needed in an entry-level college music theory, appreciation, and history course. Students will write musical compositions with the Sibelius or Finale Software Program to clarify musical concepts taught. (Part of the requirement for the course is a solo or group performance recording in a variety of ensembles.) This course will prepare students for the IB Music Exam, which will include listening, written, and performance components.



## World Language

Students who elect to study a world language will have access to five years of sequential language study, expanding student access to information and to future professional opportunities. Students develop communicative proficiency in the language and cultural understanding by becoming aware of other people's unique ways of life. Success in a world language will be supported by reliable work, attendance habits, and with active participation in the classroom. To develop appropriate and sequential skills in listening, speaking, reading, and writing, students should expect a variety of classroom activities designed to facilitate language acquisition.

## French I

**Course #:** 5110

**Recommended:** Grades 7-12

**Credit:** 1 Unit

The emphasis will be on interpretive, interpersonal, and presentational communication, as well as beginning to develop intercultural communication skills by investigating products and practices and interacting appropriately in language and behavior. Students will progress toward the novice-mid to novice-high proficiency level. Students will begin the development of all communicative skills in French.

## French II

**Course #:** 5120

**Recommended:** Grades 8-12

**Credit:** 1 Unit

**Prerequisites:** French I or Placement test

The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competency by investigating products and practices and interacting appropriately in language and behavior. Students will progress toward the novice-high proficiency level and will continue to develop communicative skills in French.

## French III

**Course #:** 5130

**Recommended:** Grades 9-12

**Credit:** 1 Unit

**Prerequisites:** French II or Placement Test

The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competency by investigating products and practices and interacting appropriately in language and behavior. Students will progress toward the intermediate-low/intermediate-mid proficiency level and will continue the development of all communicative skills in French.

## French IV

**Course #:** 5140

**Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisites:** French III or Placement test

The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competence by investigating products and practices and interacting appropriately in language and behavior. This course will be designed for students planning on pursuing a language in college, in the workplace, or as a prerequisite for the level 5, AP, or IB course. Students will progress toward the intermediate-mid/intermediate-high proficiency level and will continue the development of all communicative skills in French.

## **French V**

**Course #: 5150**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Prerequisites: French IV or Placement test**

The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competence by investigating products and practices and interacting appropriately in language and behavior. This course will be designed for students planning on pursuing a language in college, in the workplace, or as a pre-AP course for students planning to take AP French the next year. Students will progress toward the intermediate-high/advanced-low proficiency level and will continue the development of all communicative skills in French.

## **Advanced Placement French**

**Course #: 5170**

**Recommended: Grade 12**

**Credit: 1 Unit (possible college credit with appropriate score on the AP Exam)**

**Prerequisites: French III/ Equivalency**

**Examination: Advanced Placement exam**

The course will seek to develop all skills emphasizing language for communication using authentic materials in preparation for the advanced placement language exam. Students participating in Advanced Placement French will be expected, in addition to the requirements of the course, to take the exam provided by the College Board. By the end of this course, students will perform at the intermediate-high to advanced-low proficiency levels.

## **IB French (SL)**

**Course #: IB5142 & IB5152 Recommended: Grades 11-12**

**Credit: 1 Unit Per Course**

**Prerequisites: French I, II, III, admittance to the IB program**

**Examination: IB French exam**

Students will be able to speak the language with sufficient accuracy and fluency to participate in formal and informal conversations with ease. Students will work toward appreciating, discussing, and commenting, both orally and in writing, on various literacy forms. This course will include an in-depth study of literacy works and contemporary articles. Written essays will be on literacy and issue-oriented themes. Through oral presentations, individual and group projects, and writing assignments, self-expression will be encouraged. Internally assessed oral exams will be a required part of the course. This course will provide the possibility of college credit.

## **German I**

**Course #: 5210**

**Recommended: Grades 7-12**

**Credit: 1 Unit**

Students will begin the development of all communicative skills in German. The emphasis will be on interpretive, interpersonal, and presentational communication, as well

as beginning to develop intercultural communication skills by investigating products and practices and interacting appropriately in language and behavior. Students will progress toward the novice-mid to novice-high proficiency level.

## **German II**

**Course #: 5220**

**Recommended: Grades 8-12**

**Credit: 1 Unit**

**Prerequisites: German I or Placement test**

Students will progress toward the novice-high proficiency level and will continue to develop communicative skills in German. The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competency by investigating products and practices and interacting appropriately in language and behavior.

## **German III**

**Course #: 5230**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Prerequisites: German II or Placement test**

Students will progress toward the intermediate-low/intermediate-mid proficiency level and will continue the development of all communicative skills in German. The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competency by investigating products and practices and interacting appropriately in language and behavior.

## **German IV**

**Course #: 5240**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Prerequisites: German III or Placement test**

Students will progress toward the intermediate-mid/intermediate-high proficiency level and will continue the development of all communicative skills in German. The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competence by investigating products and practices and interacting appropriately in language and behavior. This course will be designed for students planning on pursuing a language in college, in the workplace, or as a prerequisite for the level 5, AP, or IB course.

## **German V**

**Course #: 5250**

**Recommended: Grades 11-12**

**12**

**Credit: 1 Unit**

**Prerequisites: German IV or Placement Test**

Students will progress toward the intermediate-high/advanced-low proficiency level and will continue the development of all communicative skills in German.



The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competence by investigating products and practices and interacting appropriately in language and behavior. This course will be designed for students planning on pursuing a language in college, in the workplace, or as a pre-AP course for students planning to take AP German the next year.

### **Advanced Placement German**

**Course #:** 5270 **Recommended:** Grade 12  
**Credit:** 1 Unit (possible college credit with appropriate score on AP exam)

**Prerequisites:** German III/Equivalency

**Examination:** Advanced Placement exam

This course will be designed to develop proficiency in German for highly motivated language students. The course will seek to develop all skills emphasizing language for communication using authentic materials in preparation for the advanced placement language exam. Students participating in Advanced Placement German will be expected, in addition to the requirements of the course, to take the exam provided by the College Board.

### **IB German (SL)**

**Course #:** IB5242 & IB 5252

**Recommended:** Grades 11-12

**Credit:** 1 Unit per course

**Prerequisites:** German I, II, III, admittance to IB program

**Examination:** IB German exam

Students will be able to speak the language with sufficient accuracy and fluency to participate in formal and informal conversations with ease. Students will work toward appreciating, discussing, and commenting, both orally and in writing, on various literacy forms. This course will include an in-depth study of literacy works and contemporary articles. Written essays will be on literacy and issue-oriented themes. Through oral presentations, individual and group projects, and writing assignments, self-expression will be encouraged. This course will culminate in an IB exam and will provide the possibility of college credit.

### **Latin I**

**Course #:** 5310 **Recommended:** Grades 7-12  
**Credit:** 1 Unit

Students will begin the development of communication skills in Latin with an emphasis on interpretive reading skills by reading level-appropriate texts. Students will begin to develop an intercultural competence by using Latin to investigate cultural products and practices of the Romans.

### **Latin II**

**Course #:** 5320 **Recommended:** Grades 8-12  
**Credit:** 1 Unit **Prerequisites:** Latin I

Students will continue to develop their communication skills with an emphasis on interpretive reading by reading more complex level appropriate texts. Students will continue to develop an intercultural competence by using Latin to investigate cultural products and practices of the Romans.

### **Latin III**

**Course #:** 5330 **Recommended:** Grades 9-12  
**Credit:** 1 Unit **Prerequisites:** Latin II

Students will continue to develop their communication skills, with emphasis on interpretive reading, by reading both more complex level-appropriate texts as well as some texts written by authentic authors. Students will continue to develop an intercultural competence by using Latin to investigate cultural products and practices of the Romans.

### **Latin IV**

**Course #:** 5340 **Recommended:** Grades 11-12  
**Credit:** 1 Unit **Prerequisites:** Latin III

Students will continue to develop their communication skills, with emphasis on interpretive reading, by reading and interpreting level-appropriate selected passages from mostly authentic authors. Students will continue to develop an intercultural competence by using Latin to investigate cultural products and practices of the Romans. This course will be designed for students planning on pursuing a language in college, in the workplace, or as a prerequisite for the level 5, AP, or IB course.

### **Latin V**

**Course #:** 5350 **Recommended:** Grades 11-12  
**Credit:** 1 Unit **Prerequisites:** Latin IV

Students will continue to develop their communication skills, with emphasis on interpretive reading, by reading and interpreting level-appropriate selected passages from exclusively authentic authors in Latin. Students will continue to develop intercultural competence by using Latin to investigate cultural products and practices of the Romans. This course will be designed for students planning on pursuing a language in college, in the workplace, or as a pre-AP course for students planning to take AP Latin the next year.

## Advanced Placement Latin

**Course #:** 5370

**Recommended:** Grade 12

**Credit:** 1 Unit (possible college credit with appropriate score on the AP exam)

**Prerequisites:** Latin III/Latin IV/Equivalency

**Examination:** Advanced Placement exam

The Advanced Placement Latin course will examine selections from Julius Caesar's *De Bello Gallico* and Virgil's *Aeneid*, and will emphasize progress in the reading, understanding, analysis, and interpretation of Latin prose and poetry. In addition to fostering an understanding of the literary techniques of Latin writers and of poetic meter, stylistic analysis will be integral of the advanced work in this course. The Advanced Placement Latin course will also include study of the cultural, social, and political context of the literature. Students will be expected to take the exam provided by the College Board.

## IB Classical Languages (HL/SL)

**Course #:** IB5330 & IB5340

**Recommended:** Grades 11-12

**Credit:** 1 Unit per course

**Prerequisites:** Latin I, II, III, admittance to the IB program

**Examination:** IB Classical Languages exam

In this two-year course, students will translate, analyze, and interpret selected passages from prescribed authors and topics in Latin. Written assessments will include externally assessed translations of particular passages demonstrating an understanding of the author's intent and style, as well as student selected topics that reflect an awareness of context and connections within and with other literature and cultures. This course will culminate in IB examinations and provides the possibility of college credit.

## Spanish I

**Course #:** 5510

**Recommended:** Grades 7-12

**Credit:** 1 Unit

Students will begin the development of communicative skills in Spanish. The emphasis will be on interpretive, interpersonal, and presentational communication, as well as beginning to develop intercultural communication skills by investigating products and practices and interacting appropriately in language and behavior. Students will progress toward the novice-mid to novice-high proficiency level.

## Spanish II

**Course #:** 5520

**Recommended:** Grades 8-12

**Credit:** 1 Unit

**Prerequisites:** Spanish I or Placement Test

Students will progress toward the novice-high proficiency level and will continue to develop communicative skills in Spanish. The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing

intercultural competency by investigating products and practices and interacting appropriately in language and behavior.

## Spanish for Native and Heritage Speakers I & II

**Course #:** 5511 & 5521

**Recommended:** Grades 9-12

**Credit:** 1 Unit

These courses are designed for native or heritage Spanish speakers. Emphasis will be placed on improving the accuracy of students' written communication. Students will read, interpret, and analyze original, authentic texts, such as short stories, novels, and poetry. Students improve their oral communication skills through class presentations and other interpersonal activities. Knowledge of perspectives and practices in Hispanic culture are expanded.

## Spanish III

**Course #:** 5530

**Recommended:** Grades 9-12

**Credit:** 1 Unit

**Prerequisites:** Spanish II or Placement Test

Students will progress toward the intermediate-low/intermediate-mid proficiency level and will continue the development of all communicative skills in Spanish. The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competency by investigating products and practices and interacting appropriately in language and behavior. Spanish III for heritage speakers may be offered.

## Spanish IV

**Course #:** 5540

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisites:** Spanish III or Placement test

Students will progress toward the intermediate-mid/intermediate-high proficiency level and will continue the development of all communicative skills in Spanish. The emphasis is on interpretive, interpersonal, and presentational communication, as well as developing intercultural competency by investigating products and practices and interacting appropriately in language and behavior. This course is designed for students planning on pursuing a language in college, in the workplace, or as a prerequisite for the level 5, AP, or IB course.

## Spanish V

**Course #:** 5550

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisites:** Spanish IV or Placement Test

Students will progress toward the intermediate-high/advanced-low proficiency level and will continue the development of all communicative skills in Spanish. The emphasis will be on interpretive, interpersonal, and presentational communication, as well as developing intercultural competency by investigating products and

practices and interacting appropriately in language and behavior. This course will be designed for students planning on pursuing a language in college, in the workplace, or as a pre-AP course for students planning to take AP Spanish the next year.

### Advanced Placement Spanish

**Course #:** 5570 **Recommended:** Grade 12

**Credit:** 1 Unit (possible college credit with appropriate score on AP exam)

**Prerequisites:** Spanish III/Equivalency

**Examination:** Advanced Placement exam

This course will be designed to develop proficiency in Spanish for highly-motivated language students. The course will seek to develop all skills emphasizing language for communication using authentic materials in preparation for the advanced placement language exam. Students participating in Advanced Placement Spanish will be expected, in addition to the requirements of the course, to take the exam provided by the College Board.

### IB Spanish (SL)

**Course #:** IB5542 & IB 5552

**Recommended:** Grades 11-12

**Credit:** 1 Unit per course

**Prerequisites:** Spanish I, II, III, admittance to IB program

**Examination:** IB Spanish exam

Students will be able to speak the language with sufficient accuracy and fluency participate in formal and informal conversations with ease. Students will work toward appreciating, discussing, and commenting both orally and in writing, on various literacy forms. This course will include an in-depth study of literacy works and contemporary articles. Written essays will be on literacy and issue-oriented themes. Through oral presentations, individual and group projects, and writing assignments, self-expression will be encouraged. This course will provide the possibility of college credit.

### American Sign Language I

**Course #:** 5990V **Recommended:** Grades 10-12

**Credit:** 1 unit

**Note:** Course offered online through Virtual Virginia

This course provides an introduction to the basic skills in production and comprehension of American Sign Language (ASL). The course focuses on the alphabet, numbers, fingerspelling, vocabulary, and grammar, which will lead to increased communicative and cultural proficiency in ASL. The culture, history, current events, and traditions of the deaf community are introduced through selected readings, visual recordings, and other authentic materials. Each student should be able to carry on a short conversation with another student by the end of the course. Also, students will develop the practical skills and knowledge necessary for basic interactions within the deaf community.

### American Sign Language II

**Course #:** 5995V

**Recommended:** Grades 11-12

**Credit:** 1 unit

**Note:** Course offered online through Virtual Virginia

In this course students will build upon the skills that were taught in American Sign Language I and continue to increase their ability to comprehend and respond with increasing accuracy to expressive American Sign Language (ASL). ASL II provides basic instruction in production and comprehension, vocabulary, and grammar, and eventually leads to increased communicative and cultural proficiency in ASL. Emphasis is placed on the progressive development of expressive and receptive skills. The culture, history, current events, and traditions of the deaf community are introduced on the appropriate level through selected readings, visual recordings, and other authentic materials. Students will be able to converse with another student or individuals within the deaf community, with emphasis on appropriate language used in common communication settings.

### American Sign Language III

**Course #:** 5997V

**Recommended:** Grade 12

**Credit:** 1 unit

**Note:** Course offered online through Virtual Virginia

In this course, students will build upon the skills that were taught in ASL II and continue to increase their ability to comprehend and respond with increasing accuracy to expressive American Sign Language. ASL III provides advanced instruction in production and comprehension, vocabulary, and grammar, leading to increased communicative and cultural proficiency in ASL. Emphasis is placed on the progressive development of expressive and receptive skills. The culture, history, current events, and traditions of the Deaf community are expounded upon through selected readings, visual recordings, and other authentic materials. Visually attending, signing, individual feedback, interactive activities and group activities are designed to instruct, reinforce, connect language skills, and develop signacy. This course includes applications, problem solving, higher-order thinking skills, and performance based and project-based assessments.



## ESOL

English for Speakers of Other Languages is designed for students whose home language is one other than English and who have limited English proficiency. The ESOL program will provide the English Learner (EL) student with the language skills necessary for academic success and to participate fully in the total school program. The courses will emphasize application of the WIDA English Language Development Standards to content knowledge and skills. A student may earn credit in World Language for ESOL courses.



### **English for Speakers of Other Languages (ESOL) I**

**Course #: 5710**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Prerequisites:** WIDA ACCESS score or W-APT screening

This course will be designed for students with very little to no prior knowledge of English. Listening, speaking, reading, and writing skills will be developed. Academic vocabulary, grammar, and language structures will be studied through the integration of concepts from social studies, math, and science. ESOL I will be recommended for ELs at proficiency Levels I.

### **English for Speakers of Other Languages (ESOL) II**

**Course #: 5720**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Prerequisites:** WIDA ACCESS score or W-APT screening

This course will be designed for students with emerging English skills. Students will use reading, writing, listening and speaking in English to focus on literacy and the knowledge and skills needed for their academic courses. Students will expand academic vocabulary and their ability to read and respond in English. ESOL II will be recommended for ELs at proficiency Levels I and/or II.

### **English for Speakers of Other Languages (ESOL) III**

**Course #: 5730**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Prerequisites:** WIDA ACCESS score or W-APT screening

Students will continue to develop listening, speaking, reading, and writing with alignment to the knowledge and skills necessary for their academic courses. Students will develop the ability to analyze and interpret increasingly complex texts and learn to utilize complex language structures. Students will read a variety of texts and compose written responses for a range purposes. This course will be for ELs at Level II and/or III.

### **English for Speakers of Other Languages (ESOL) IV**

**Course #: 5731**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Prerequisites:** WIDA ACCESS score or W-APT screening

This course will provide for the expansion and refinement of all English language skills. Reading, writing, listening, and speaking will be emphasized through the skills and knowledge necessary for content courses. Students will expand their ability to analyze and interpret complex texts and refine the use of complex language structures. Students will read a variety of texts and compose written responses for a range purposes. This course will be for ELs at Levels IV and/or V.

### **English for Speakers of Other Languages (ESOL) V**

**Course #: 5735**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Prerequisites:** WIDA ACCESS score or W-APT screening

This course will continue to refine all English language skills. Reading, writing, listening, and speaking will be emphasized through the skills and knowledge necessary for content courses. Students will analyze and interpret texts using complex language structures. Students will read a variety of texts and compose written responses for a range of purposes.



## **Health & Physical Education**

Two units of health and physical education are required for graduation. The two units are usually taken in grades 9 and 10 with at least 40% of instructional time devoted to health in 9th grade and Driver Education in 10th grade.

### **Health & Physical Education Grade 9**

**Course #: 7300**

**Recommended: Grade 9**

**Credit: 1 Unit**

Students in ninth grade Physical Education will complete the transition from modified versions of movement to more fundamental movements as they relate to lifetime fitness. Students will also focus on personal wellness through goal setting and fitness plans. Fitness plans and goals will be based upon the five elements of fitness: cardio-respiratory endurance, muscular strength, muscular endurance, flexibility, and body composition. In Health, students will learn about a variety of topics relating to wellness, fitness, health organizations, nutrition, CPR, disease, alcohol, tobacco, drugs, and family life.

### **Physical Education & Driver's Education Grade 10**

**Course #: 7405**

**Recommended: Grade 10**

**Credit: 1 Unit**

**Prerequisites:** Health & Physical Education Grade 9

Students in 10th grade Physical Education will become proficient in all fundamental movements as they relate to lifetime fitness. Students will be assessed on process based skills, while demonstrating strategy and content knowledge. Through these activities and fitness goals, students become prepared to lead a physically active lifestyle. Fitness plans and goals will be based upon the five elements of fitness: cardio-respiratory endurance, muscular strength, muscular endurance, flexibility, and body composition. In Driver's Education, students will learn about mental health, family life and material related to the operation of a motor vehicle.

### **Strength and Conditioning**

**Course #: 7640**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

This elective course will provide motivated students seeking daily participation in weight training and cardiovascular fitness the opportunity to design and implement individual fitness routines specific to his or her needs. Participants



will gain a working knowledge of muscle groups and the exercises that compliment them, along with an understanding of how the human body benefits from cardiovascular activity.

## **Recreation & Wellness**

**Course #:** 7650

**Recommended:** Grades 11-12

**Credit:** 1 Unit

In this class, students will participate in a variety of lifetime activities preparing them to lead a physically active lifestyle. Students will be assessed based upon their activity level, process-based skill, and content knowledge. Recommendation from a Physical Education teacher will be highly encouraged.

# **Mathematics**

The mathematics curricular choices provide sequential and non-sequential offerings designed to meet a variety of student needs and requirements. Course choices must be made in accordance with individual student needs and abilities as well as course prerequisites. Many of the non-sequential choices provide enrichment for the student enrolled in sequential mathematics offerings. Such courses expand student knowledge in practical matters as well as in mathematical topics.

## **Algebra I**

**Course #:** 3130

**Recommended:** Grades 7-12

**Credit:** 1 Unit

**Prerequisites:** Math 8

Students will study the solution of linear and quadratic equations, linear inequalities, systems of equations, polynomials, graphing, and data analysis. Tables and graphs will be used to interpret algebraic expressions, equations, and inequalities and to analyze functions. Appropriate technology will be used as a tool to assist in problem solving.

## **Algebra I, Part 1**

**Course #:** 3131

**Recommended:** Grades 9-10

**Credit:** 1 Unit

This course is the first part of a two-part Algebra I course. It will begin with a review of mathematical vocabulary, equations, and inequalities. Students will explore rational numbers by solving and graphing linear equations. Statistics will be integrated throughout this course to include the use of a graphing calculator.

## **Algebra I, Part 2**

**Course #:** 3132

**Recommended:** Grades 9-10

**Credit:** 1 Unit

**Prerequisites:** Successful completion of Algebra I, Part 1

**Examination:** SOL

This course completes the Algebra two-year series by

reviewing Part 1 concepts and then exploring polynomials and factoring methods. Students will solve and investigate quadratic equations and continue with statistics. Students will use appropriate technology throughout this course to include a graphing calculator.

## **Geometry**

**Course #:** 3143

**Recommended:** Grades 8-12

**Credit:** 1 Unit

**Prerequisites:** Algebra I

**Examination:** SOL

Geometry is offered to students who have successfully completed the standards for Algebra I. In this course, students will study angle relationships, parallel lines, polygons, symmetry, circles, and constructions. Formulas for surface area and volume will be used to solve practical problems. Proofs will be approached intuitively and then formally as the student is prepared to analyze, synthesize, and reach conclusions.

## **Geometry, Part 1**

**Course #:** 3144

**Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisites:** Algebra I

This course is the first part of a two-part Geometry course. It begins with a review of basic geometry and builds on working with the coordinate plane. Students will investigate undefined terms, definitions, postulates, theorems, and deductive reasoning. The Pythagorean Theorem will be explored along with various dimensional figures. Constructions will be emphasized. Appropriate technology will be utilized.

## **Geometry, Part 2**

**Course #:** 3145

**Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisites:** Geometry, Part 1

**Examination:** SOL

This course completes the geometry two-year series by reviewing Part 1 concepts and using algebra skills to identify similarity and proportionality. Additional concepts involving right triangles and trigonometry will use the Pythagorean Theorem. Students will analyze plane figures and investigate surface area and volume. Coordinate and transformational geometry will also be studied. Appropriate technology will be utilized.

## **Algebra, Functions, & Data Analysis**

**Course #:** 3134

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisites:** Algebra 1 and Geometry

This course must be taken before Algebra II. It may be applied toward an advanced diploma if followed by Algebra II. Within the context of mathematical modeling and data analysis, students will study functions and their behaviors, systems of inequalities, probability, experimental design

and implementation, and analysis of data. Data will be generated by practical applications arising from science, business, and finance. Students will solve problems that require the formulation of linear, quadratic, or exponential equations or a system of equations. The infusion of technology in the course will assist in modeling and investigating functions and data analysis.

## **Algebra II**

**Course #:** 3135

**Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisites:** Algebra I and Geometry

**Examination:** SOL

Algebra II is an advanced study of the following topics within the framework of the real number system: exponents and radicals, polynomial and rational functions, linear and quadratic functions and relations, exponential and logarithmic functions, and systems. Complex numbers will also be introduced.

## **Honors Algebra II**

**Course #:** 3136

**Recommended:** Grades 9-12

**Credit:** 1 Unit

**Prerequisites:** Successful completion of Algebra I and Geometry

**Examination:** SOL

Honors Algebra II is a more theoretical approach to the study of the following topics within the framework of the real number system: exponents and radicals, polynomial and rational functions, linear and quadratic functions and relations, exponential and logarithmic functions, systems, matrices, sequences and series. Complex numbers and analytic geometry will also be introduced. Graphing utilities will be used.

## **Applied Mathematics: Modeling & Functions**

**Course #:** 3160

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisite:** Algebra II

This course is designed to help eleventh and twelfth grade students prepare for college or the workplace by enhancing skills in number and quantity, functions and algebra, geometry, statistics and probability and simultaneously reinforcing readiness skills and dispositions in adaptability and flexibility, creativity and innovation, leadership, team work, collaboration and work ethic. Students will research, collect, and analyze data; develop and support ideas and conjectures; investigate, evaluate, and incorporate appropriate resources; and determine appropriate problem-solving approaches and decision-making algorithms in a variety of real-world contents and applied settings.

## **Mathematical Analysis**

**Course #:** 3162

**Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisites:** "B" or better in Algebra II, Applied Mathematics, or recommendation

The content of Mathematical Analysis serves as appropriate preparation for a calculus course and is an in-depth study of functions and their characteristics. The study will include, but will not be limited to, polynomial, rational, radical, exponential, and piece-wise-defined functions. A thorough treatment of trigonometry will be provided through the study of trigonometric definitions, applications, graphing, and solving trigonometric equations. Emphasis will be placed on using connections between right triangle ratios, trigonometric functions, and circular functions. Graphing utilities will be used.

## **Dual Enrollment Pre-Calculus I & II (MTH 161/162)**

**Course #:** 3161

**Recommended:** Grades 11-12

**Credit:** 1 Unit (6 semester hours of college credit with a grade of 70 or better each semester)

**Prerequisites:** Algebra II; staff recommendation, and Germanna entrance requirement

Pre-Calculus is a Germanna Community College course that is taught at the high school and will present the concepts and methods necessary for the study of calculus, including algebra, analytic geometry, and the study of algebraic, exponential, logarithmic, and trigonometric functions. Dual Enrollment Pre-Calculus is comparable to Math Analysis. Credits transfer to all Virginia Community Colleges and most colleges and universities. Tuition is required for this class and the fee is based on Germanna Community College's fee.

## **Dual Enrollment Calculus (MTH 263/264)**

**Course #:** 3230

**Recommended:** Grade 12

**Credit:** 1 Unit (8 semester hours of college credit with a grade of 70 or better each semester)

**Prerequisites:** MTH 161-162, staff recommendation. Germanna entrance requirement.

Calculus is a Germanna Community College course that is taught at the high school. This weighted course carries one (1) weighted high school credit and eight (8) semester hours of college credit. The course allows seniors to earn high school credit and college credit simultaneously and is taught at the high school. Dual Enrollment Calculus is comparable to AP Calculus. Credits transfer to all Virginia Community Colleges and most colleges and universities. Tuition is required for this class and the fee is based on Germanna Community College's. Students are required to earn a 70 or better during the first semester to continue in the second semester portion of the course.

## Computer Mathematics (C++)

**Course #:** 3199

**Recommended:** Grades 9-12

**Credit:** 1 Unit

**Prerequisite:** Geometry

The major focus of this course is to provide experience in using the computer to solve problems set up using mathematical models. Programming is a major emphasis of the entire course ranging from simple programs to the more complex programs written in the C++ language. Students will be encouraged to take Computer Math in addition to Algebra II, Advanced Algebra II, Mathematical Analysis, or Calculus.

## Statistics & Probability

**Course #:** 3190

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisite:** Algebra II

This course will include analyzing data graphically and numerically, designing studies and experiments, introduction to probability, and statistical inference. This course will also focus on mathematical writing and analysis skills. A TI-84 calculator and computer will be used as tools for learning in this course.

## Advanced Placement Statistics

**Course #:** 3192

**Recommended:** Grades 10-12

**Credit:** 1 Unit (possible college credit with appropriate score on the AP exam)

**Prerequisite:** Algebra II

**Examination:** Advanced Placement exam

The course will include observing patterns and departures from patterns in exploring data, planning what or how to measure in a study, anticipating patterns in advance, an introduction to probability and simulation, and statistical inference. There will be several special problem investigations that culminate in a written report. The Texas Instruments TI-83+ graphing calculator and a computer will be used as tools for learning in this course. Students participating in Advanced Placement Statistics will be expected, in addition to the requirements of the course, to take the exam as provided by the College Board.

## Advanced Placement Calculus AB

**Course #:** 3177

**Recommended:** Grades 11-12

**Credit:** 1 Unit (possible college credit with appropriate score on the AP exam)

**Prerequisite:** Mathematical Analysis

**Examination:** Advanced Placement exam

Advanced Placement Calculus will be intended for students who have a thorough knowledge of college preparatory mathematics, including – algebra, axiomatic geometry, trigonometry, and analytic geometry (rectangular and polar coordinates, equations and graphs, lines and conics). This course will cover both theory and applications of integral

and differential calculus. The course will follow an outline proposed by the College Board and is presented at a college level. Graphing calculators will be used extensively. Students participating in Advanced Placement Calculus will be expected, in addition to requirements of the course, to take the exam as provided by the College Board.

## Advanced Placement Calculus BC

**Course #:** 3178

**Recommended:** Grade 12

**Credit:** 1 Unit (possible college credit with appropriate score on the AP exam)

**Prerequisite:** Successful completion of AP Calculus AB

Topics include functional analysis, limits, continuity, the derivative and applications, and solving problems that deal with the rate of change. In addition, students in calculus BC will apply calculus techniques to polar curves, parametric equations, vector function sequences and series, and slope fields. The content of this course is equivalent to two semesters of college calculus. Students participating in Advanced Placement Calculus BC will be expected, in addition to the requirements of the course, to take the exam as provided by the College Board.

## Advanced Placement Computer Science Principles

**Course #:** 3202

**Recommended:** Grades 9-12

**Credit:** 1 Unit (possible college credit with appropriate score on the AP exam)

**Prerequisite:** Algebra I

**Examination:** Advanced Placement Test

Advanced Placement Computer Science Principles will introduce students to programming and also give them an understanding of the fundamental concepts of computing, its breadth of application, and its potential for transforming the world we live in. It will be rigorous, engaging, and accessible.

## Advanced Placement Computer Science (JAVA)

**Course #:** 3185

**Recommended:** Grades 11-12

**Credit:** 1 Unit (possible college credit with appropriate score on the AP exam)

**Prerequisite:** Computer Mathematics (C++)

**Examination:** Advanced Placement exam

Advanced Placement Computer Science will involve students in programming methodology, algorithms, and data types and structure. The course will include applications of computing and the development of computing techniques. Java will be the programming language used in this course. The course will follow an outline proposed by the College Board and will be presented at a college level. Students participating in Advanced Placement Computer Science will be expected, in addition to requirements of the course, to take the exam as provided by the College Board.



### **IB Math Analysis and Approaches (HL/SL)**

**Course #:** IB 3186/3188; IB 3193/3194

**Recommended:** Grades 10-12

**Credit:** 1 unit

**Prerequisites:** Dual Enrollment Pre-Calculus, Honors Algebra II, Teacher Recommendation

**Examination:** IB Math AA SL/HL Exam

This two-year course covers topics that are both traditionally part of a pre-university mathematics course (functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series. The course allows the use of technology, however, it has a strong emphasis on the ability to construct, communicate and justify correct mathematical arguments. Students will complete an internal and external assessment for this course and the completion of this course will fulfill the requirement for group 5 (mathematics) for the IB Diploma. This course culminates with an IB external assessment that provides the possibility of college credit.

### **IB Math Applications and Interpretations (SL)**

**Course #:** IB 3187/3191 **Recommended:** Grades 11-12

**Credit:** 1 unit per course

**Prerequisites:** Honors Algebra II, Teacher Recommendation

**Examination:** IB Math AI SL Exam

This course will cover the topics of numbers and algebra; functions; geometry and trigonometry; statistics and probability; calculus; and mathematics exploration to enable students to apply mathematics in multiple realistic, historical and cultural perspectives and develop their conceptual understanding of the world using the content and skills of mathematics. A substantial mathematical investigation in the form of a project will be required as part of an internal and external assessment in this course, and completion of this two-year course will fulfill the requirement for group 5 (mathematics) for the IB Diploma. The course will culminate with an IB external assessment that provides the possibility of college credit.



## **Science**

Students enrolled in science courses will develop a deeper understanding and competence of techniques by utilizing scientific and engineering practices in the disciplines of biology, chemistry, physics, and geo-systems.

### **Environmental Science**

**Course #:** 4340

**Recommended:** Grade 9

**Credit:** 1 Unit

Students will learn the concepts of communities and ecosystems. Learning opportunities will include the study of interrelationships of living and non-living components in

the environment through lecture, lab studies, and various student activities. Particular focus will be on humankind's influence on these systems and environmental stewardship.

### **Earth Science**

**Course #:** 4210B

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Examination:** SOL

Students will learn a broad overview of four areas in Earth Science: geology, astronomy, meteorology, and oceanography. Through the use of lectures, labs, class activities, and audio-visual materials, the students will develop a practical knowledge and appreciation of the forces which shape the earth and affect our lives.

### **Honors Earth Science**

**Course #:** 4210A

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Examination:** SOL

Students will explore the four areas of geology, meteorology, astronomy and oceanography. This course will teach the latest concepts developed in explaining the complex natural forces controlling the earth in terms of our weather, the oceans, crustal processes, and space exploration. Emphasis will be on the students' inductive reasoning powers to lead them to a more thorough understanding of the earth sciences. Labs, lab reports, use of graphs, or projects will also challenge the students and enrich their pursuit of knowledge of our dynamic earth.

### **Earth Science II: Advanced Topics**

**Course #:** 4220

**Recommended:** Grade 12

**Credit:** 1 Unit

**Prerequisites:** Successful completion of Earth Science

Students will delve deeper into the studies of Astronomy and Meteorology. Students will collect and analyze weather data to forecast the weather, storms, and other related weather phenomena. Students will investigate thermal, electrical, optical, and other properties of the atmosphere. Astronomy topics will include methods and tools used to investigate the universe, universal laws, galaxies, stellar evolution, the solar system, planetary motion, and the exploration of space.

### **Advanced Placement Environmental Science**

**Course #:** 4270

**Recommended:** Grades 9-12

**Credit:** 1 Unit (college credit, pending AP exam score)

**Recommended Prerequisites:** Successful completion of Algebra I, and pass advanced on the 8th grade Physical Science SOL for 9th grade students enrolling

**Examination:** Advanced Placement Test and Earth

The AP Environmental Science course reflects learning that analyzes environmental concepts and processes to achieve understanding in order to propose and justify solutions



to environmental problems. The course teaches students how to apply science to the solutions of important social problems. It also provides opportunities to practice applying scientific methods to practical, real-life problems. Students participating in Advanced Placement Environmental Science are expected to take the College Board exam.

### **IB Environmental Systems and Societies SL**

**Course Number:** IB4280      **Recommended Grades:** 11-12

**Credit:** 1 Unit

**Prerequisites:** Successful completion of Chemistry and Biology

**Examination:** IB Environmental Systems and Societies SL Exam

IB Environmental Systems and Societies is firmly grounded in both a scientific exploration of environmental systems in their structure and function, and in the exploration of cultural, economic, ethical, political and social interactions of societies with the environment. Students will become equipped with the ability to recognize and evaluate the impact of our complex system of societies on the natural world. The course requires a systems approach to environmental understanding and promotes holistic thinking about environmental issues. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, knowledge transfer and use of primary sources. They encourage students to develop solutions at the personal, community and global levels.

### **Biology**

**Course #:** 4310B

**Recommended:** Grade 10

**Credit:** 1 Unit

**Examination:** SOL

Students will develop an understanding and appreciation of the biological processes that relate to all organisms. Students will learn the basics of cells, genetics, ecology, evolution, and the anatomy/physiology of organisms. Laboratory investigations will be conducted which reinforce principles taught in the classroom.

### **Honors Biology**

**Course #:** 4310A

**Recommended:** Grade 10

**Credit:** 1 Unit

**Examination:** SOL

Students will learn the scientific background and experience the rigor necessary to prepare them for advanced high school courses and college. Major topics covered in the course will include: cells, genetics, ecology, evolution and the anatomy and physiology of organisms. Laboratory investigations will be conducted which reinforce principles taught in the classroom.

### **Biology II - Seminar**

**Course #:** 4320

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisite:** Successful completion of Biology

Students will learn entomology, vertebrate anatomy, bacteriology, genetics, and botany. Students develop this knowledge through research, laboratory activities, data analysis, and class discussion. This course will include the requirement of long-term projects such as creating an insect collection, conducting several dissections, analyzing bacteria cultures, and creating a plant collection. To be successful, students must be able to work independently as well as cooperatively with classmates and manage their time effectively.

### **Advanced Placement Biology**

**Course #:** 4370

**Recommended:** Grades 10-12

**Credit:** 1 Unit (College credit, pending AP Exam Score)

**Prerequisites:** Successful completion of Biology and completion or concurrent enrollment in Chemistry is recommended

**Examination:** Advanced Placement Test and SOL

**Note:** May be double-blocked

Students will learn the equivalent of a college introductory biology course. Topics discussed in depth will include: biochemistry, cell energetics, cell composition, molecular genetics, and the systematics, physiology, and ecology of organisms including humans. Students will gain understanding and appreciation of scientific research with required laboratory activities. The course will proceed at a rapid pace following an outline proposed by the College Board. In addition to completing the requirements of the course, students participating in Advanced Placement Biology will be expected to take the Advanced Placement exam as provided by the College Board and the Biology End-of-Course Test, if not previously taken.

### **IB Biology (HL)**

**Course #:** IB4380 & IB4390      **Recommended:** Grades 11-12

**Credit:** 1 unit per course

**Prerequisites:** Honors Biology, Chemistry, admittance to IB program

**Examination:** IB Biology exam

This two-year IB Biology course will provide students with an overview of the major principles and processes in the areas of molecular and cellular biology, genetics, ecology, and organisms. Laboratory work is an integral part of this course, and students will be required to submit written laboratory reports. Students will design and implement their own laboratory investigations and will participate in the interdisciplinary Group 4 science research project. The second year will provide an introduction to advanced anatomy and physiology and plant biology. Laboratory work will continue to be an integral part of the course,

and students will be required to submit written laboratory reports that will be internally assessed by the classroom teacher as well as externally assessed by trained IB examiners. The course will culminate with IB examinations that provide the possibility of college credit.

### **Chemistry I**

**Course #:** 4410B                      **Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisites:** Completion of Algebra I and concurrent enrollment in or completion of Algebra II recommended

**Examination:** SOL

Students will gain a broad, general understanding of the fundamental principles of chemistry. Laboratory investigations will be conducted which reinforce principles taught in the classroom.

### **Chemistry II**

**Course #:** 4420                      **Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisites:** Successful completion of Algebra II and Chemistry I

Students will gain knowledge of biochemistry, chromatography, nuclear chemistry, qualitative and quantitative analysis, oxidation reduction, equilibrium, gas laws, and stoichiometry. Enrolled students may have an interest in a career in chemistry or any related fields such as biology, engineering, or medicine.

### **Advanced Placement Chemistry**

**Course #:** 4470                      **Recommended:** Grades 11-12

**Credit:** 1 Unit; (College credit, pending AP Exam score)

**Prerequisites:** Successful Completion of Algebra II and Chemistry I

**Examination:** Advanced Placement Test & SOL

**Note:** May be doubled blocked

This course will provide an in-depth of understanding of the fundamentals of chemistry and a reasonable competence in dealing with chemical problems. Upon successful completion of the course, students will be able to comprehend the development of principles and concepts, demonstrate application of principles, relate fact to theory and properties to structure, and understand systematic nomenclature. The course will emphasize chemical calculations and mathematical formulation of principles. The course follows an outline proposed by the Advanced Placement Board. Students participating in Advanced Placement Chemistry will be expected to take the College Board exam in addition to fulfilling all the requirements of the course including taking the chemistry end-of-course test if not previously taken.

### **IB Chemistry (HL)**

**Course #:** IB4480& IB4490    **Recommended:** Grades 11-12

**Credit:** 1 Unit per course

**Prerequisites:** Honors Biology, Chemistry, admittance to IB program

**Examination:** IB Chemistry exam

This two-year course provides a survey of the major principles of chemistry including the structure of matter, kinetic theory of gases, chemical equilibrium, chemical kinetics, thermodynamics, acid-base theory, and organic chemistry. The first year emphasizes problem solving, proficiency in mathematical usage, and improvement and expansion of laboratory techniques as related to contemporary chemistry to include experimental design. Students will participate in the interdisciplinary Group 4 science research project. The second year emphasizes research techniques, advanced laboratory techniques, advanced problem solving and synthesis of prior knowledge to investigate IB option topics. During both years of this course, laboratory work will be integral and students will be required to submit written laboratory reports. Students will design and implement their own laboratory investigations that will be both internally assessed by the classroom teacher as well as externally assessed by trained IB examiners. The end-of-course IB examinations provide the possibility of college credit.

### **Physics**

**Course #:** 4510B                      **Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisites:** Completion of Algebra I and Geometry. Current enrollment in Algebra II or a higher-level math course.

Students will explore physical phenomena observed in our everyday world. Emphasis will be placed on the study of motion, forces, energy, optics, electricity, and magnetism. Laboratory work with proper collection and analysis of data, will be stressed. Physics is recommended for students who are interested in math, engineering, technology, or science. An understanding of basic mathematical concepts is an integral part of this class.

### **Advanced Placement Physics I**

**Course #:** 4570                      **Recommended:** Grades 11-12

**Credit:** 1 Unit (College credit, pending AP Exam score)

**Prerequisites:** Successful completion or concurrent enrollment in Algebra II

**Examination:** Advanced Placement Test

Students will explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Students participating in Advanced Placement Physics I

will be expected to take the College Board exam in addition to fulfilling all the requirements of the course.

### Dual Enrollment Physics (PHY 201-202)

Course #: 4650

Recommended: 12

Credit: 1 Unit (also transferable college credit hours (4) with a grade of 70 or better each semester)

Prerequisite: DE Pre-calculus or Math Analysis and Germanna entrance requirements

Note: Fee required

This course is a Germanna Community College (GCC) course taught in high school. Students will explore topics such as mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. College credits earned will transfer to all Virginia Community Colleges and most colleges and universities.

### Advanced Placement Physics II

Course #: 4574

Recommended: Grades 11-12

Credit: 1 Unit (College credit, pending AP Exam score)

Prerequisites: Successful completion of AP Physics I and have taken or be concurrently taking Pre-Calculus or an equivalent course.

Students will explore topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Students participating in Advanced Placement Physics II will be expected to take the College Board exam in addition to fulfilling the requirements of the course.

### IB Physics HL

Course Numbers: IB 4580; IB 4590

Recommended: 11-12

Credit: 1 Unit

Prerequisites: Successful completion of Honors Algebra II Examination: IB Physics HL/SL Exam

IB Physics HL is a two year algebra based Physics course. Concepts covered in the first year are Newtonian Mechanics and include: motion, forces, work and energy, momentum, circular motion, momentum, thermal physics, and fluids. The second year we study Electricity and Magnetism. Topics covered include: charge, statics, simple circuits, magnetic induction, optics, and electrical power production. Additional units covered are Relativity and Engineering Principles.

### Human Anatomy & Physiology

Course #: 4330

Recommended: Grades 11-12

Credit: 1 Unit

Prerequisites: Successful completion of Biology and completion or concurrent enrollment in Chemistry

Students will gain an in-depth understanding and working knowledge of the structure and function of the human body. The course will cover the eleven systems of the human body with emphasis on the mechanisms that maintain homeostasis. Laboratory and clinical case studies will be used to illustrate anatomical and physiological concepts. Careers in the medical sciences are explored.

### Earth Science II: Oceanography

Course #: 4251

Recommended: Grades 12

Credit: 1 Unit

Prerequisites: Successful completion of Earth Science

Students will gain an in-depth understanding of oceanography concepts presented in Earth Science. Students will study the physical properties of sea water, marine chemistry, salinity, density, circulation within the oceans, waves, currents, tides, and oceanographic instruments and research. Emphasis will be placed on the major skills of practicing oceanographers and scientists.



## History & Social Science

Social studies courses are designed to immerse students in the content knowledge and skills necessary to understand the world in which they live. Students take a combination of geography, history, and government courses that enhance their world view through the analysis of primary and secondary historical documents, the application of geospatial knowledge, and by examining the relationship between good citizenship and government. The mandatory social studies curriculum begins with World Geography in the ninth grade. Students then progress over the next two years to gain a strong base of historical knowledge in World History II and Virginia & United States History. The required curriculum culminates in the 12th grade with Virginia & United States Government as students approach the precipice of adult citizenship. In addition to the mandatory curriculum, there are several electives that students can take according to their interests. Advanced Placement, IB, and Dual-Enrollment options are available for students who wish to further challenge themselves.

### World Geography

Course #: 2210

Recommended: Grade 9

Credit: 1 Unit

Examination: SOL

Students will examine the environmental and cultural patterns of the major world regions. Critical thinking



skills will be developed and applied as students examine demographic and economic data and investigate the causes, effects, and possible solutions to current international conflicts, problems, and environmental concerns. Map skills will be extended as students use an atlas and varied types of maps in regional studies, build spatial perceptions, and develop a mental map of the world. Democratic values and citizenship will be reinforced as students develop an appreciation of the cultural diversity of the world, learn to work cooperatively with classmates, and build an appreciation and concern for the environment.

### **Advanced Placement Human Geography**

**Course #:** 2212

**Recommended:** Grades 9-12

**Credit:** 1 Unit (College credit, pending AP Exam score)

**Examination:** Advanced Placement Test & SOL

This course will provide an overview of the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students will employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They will also learn about the methods and tools geographers use in their science and practice. The course is presented at the college level and follows an outline proposed by the College Board. Students should be prepared for a rigorous workload above that of standard advanced classes.

### **World History 1500 AD (C.E.) to Present**

**Course #:** 2221

**Recommended:** Grade 10

**Credit:** 1 Unit

**Examination:** SOL

Students will explore the diversity of culture and the evolution of human history from 1500 to the present. Students will examine the development of the world's major political, economic, and legal systems; artistic and literary movements; technological changes; trade patterns; religions; and the influential people of history.

### **Advanced Placement World History**

**Course #:** 2380

**Recommended:** Grades 10-12

**Credit:** 1 Unit (College credit, pending AP Exam score)

**Examination:** Advanced Placement Test & World History SOL

**Note:** It is recommended that students take Honors English with this course.

Students will gain a rigorous, thematic survey of global history with an emphasis on 1200 AD (C.E.) to the present. Students will examine and analyze the broad themes of cross-cultural interaction that have shaped human history. Students will develop an understanding of the principle themes in history and learn to support arguments with clear and persuasive writing. The course will be presented at the college level and follows an outline proposed by the College Board. Students should be prepared for a rigorous workload above that of standard advanced classes.

### **Virginia & United States History**

**Course #:** 2360

**Recommended:** Grade 11

**Credit:** 1 Unit

**Examination:** SOL

Students will chronicle the history of the United States from the first European colonization of the Americas to the present. Students will gain knowledge of historically identified individuals and groups, domestic and foreign policies, political and economic history, and American culture.

### **Advanced Placement United States History**

**Course #:** 2319

**Recommended:** Grade 11

**Credit:** 1 Unit (College credit, pending AP exam score)

**Examination:** Advanced Placement Test & SOL

**Note:** Honors English is recommended in conjunction to this course.

Students will gain analytical skills and factual knowledge necessary to deal critically with issues and problems in United States history. This course will include an in-depth analysis of major developments and assessments of historical materials, evidence, and interpretations. Students will learn to assess historical materials, develop the skills to arrive at decisions of informed judgment, and to present arguments and evidence in clear and persuasive writing. The course will be presented at the college level and follows an outline proposed by the College Board.

### **Virginia & United States Government**

**Course #:** 2440

**Recommended:** Grade 12

**Credit:** 1 Unit

Students will examine the structure and functions of our federal form of government. The decision-making processes at the local, state, and national levels will be emphasized. The foundations of American government, the politics of American democracy, and constitutional rights and responsibilities will be explored in depth. United States political and economic systems will be compared to those of other nations, with emphasis on the relationships between economic and political freedoms. Economic content includes the United States market system, supply and demand, and the role of the government in the economy. Democratic values and citizen participation will be stressed throughout the course.

### **Advanced Placement United States Government**

**Course #:** 2445

**Recommended:** Grade 12

**Credit:** 1 Unit (College credit, pending AP exam score)

**Examination:** Advanced Placement Test

Students will gain an analytical perspective on government and politics in the United States. Students will learn basic facts, concepts, and theories pertaining to United States government and politics, understand typical patterns of



political processes and behavior and their consequences, and analyze and interpret basic data. The course will be presented at the college level and follows an outline proposed by the College Board.

### **Dual Enrollment Western Civilization (HST 101-102)**

**Course #:** 2446      **Recommended:** Grades 11-12

**Credit:** 1 Unit (also transferable college credit hours (6) with a grade of 70 or better each semester)

**Prerequisite:** Germanna entrance requirements

**Note:** Fee required

This course examines the development of western civilization from ancient times to the present. The first semester of the course surveys the origins and development of the Western world, including the critical influence of the Ancient Near East, Greece, Rome, Byzantium, the Islamic caliphates and the European states. It will also examine the birth of the major monotheistic religions, religious conflicts, and the co-evolution of religion and state. The second semester of the course is a survey of Western Civilization from the seventeenth century through the present. It explores the political, diplomatic, economic, social, intellectual, and cultural history of Western Civilization beginning around 1600 C.E. The focus is primarily on Europe and Russia, but also explores how Africa, the Americas, and Asia engaged with the West from Exploration through Decolonization.

### **Advanced Placement European History**

**Course #:** 2399      **Recommended:** Grades 10-12

**Credit:** 1 Unit (College credit, pending AP exam score)

**Examination:** Advanced Placement Test

**Note:** It is recommended that students take Honors English with this course.

Students will learn about the major events, movements, and personalities in European History from the late Middle Ages to the present. Students will develop an understanding of the principle themes in modern and historical interpretation, and an ability to express historical understanding in writing. The course will be presented at the college level and follows an outline proposed by the College Board. Students will be expected, in addition to requirements of the course, to take the exam provided by the College Board as well as the World History: 1500 AD (C.E.) to Present SOL, if not taken previously and passed social studies end-of-course test.

### **IB History (HL)**

**Course #:** IB2360 & IB2361      **Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisites:** VA/US History, AP Government, admittance to IB program

**Examination:** IB History exam (12th grade)

Students in this two-year course will learn American political, economic, social systems and further develop their

skills of interpretation and analysis. Each year, students will demonstrate historical analysis by discussion, presentation, and written work including an internally assessed research paper. The course culminates in a series of external assessments that include document-based questions, short essay response, and an internally assessed research paper which provide the possibility of college credit.

### **Psychology**

**Course #:** 2900

**Recommended:** Grades 10-12

**Credit:** .5 Unit Elective Course

Students will gain an introduction to the study of individual human behavior. Students will be given the opportunity to explore subjects studied by behavioral scientists and apply psychological concepts to everyday human problems and life.

### **Advanced Placement Psychology**

**Course #:** 2902

**Recommended:** Grades 10-12

**Credit:** 1 Unit (college credit, pending AP exams score)

**Examination:** Advanced Placement Test

Students will learn the basics of systematic and scientific study of human behavior and mental processes. Students will be exposed to the psychological facts, principles and phenomena associated with each of the major subfields within psychology. They will also learn about the methods psychologists use in their science and practice. The students will study topics of biological bases of behavior, sensation and perception, states of consciousness, learning cognition, motivation and emotion, developmental psychology, personality, testing and individual differences, abnormal psychology, treatment of psychological disorders, and social psychology. The course will be presented at the college level and follows an outline proposed by the College Board.

### **IB Psychology (SL)**

**Course #:** IB1450

**Recommended:** Grades 11-12

**Credit:** 1 Unit

**Examination:** IB Psychology SL Exam

An introduction to three different approaches to understanding behavior: the biological, cognitive, and sociocultural approaches. Students study and critically evaluate the knowledge, concepts, theories, and research that have developed understanding in these fields. The contribution and the interaction of the three approaches is understood through the four options in the course, focusing on areas of applied psychology: abnormal psychology, developmental psychology, health psychology, and the psychology of relationships. This course promotes and understanding of the various approaches to research and how they are used to critically reflect on the evidence as well as assist in the design, implementation, analysis, and evaluation of the students' own investigations. Overarching themes of research and ethics surround all course material.

## Sociology

**Course #: 2500**

**Recommended: Grades 10-12**

**Credit: .5 Unit Elective Course**

Students will analyze the causes and effects of various human relationships. This course will promote an awareness of basic human needs and the development of skills and attitudes that enable individuals to contribute positively toward improved human relations in the family, school, and community.

## African American History

**Course #: 2370**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

Students will examine the role African Americans have played in American history and promotes cultural awareness. Critical thinking, through the lens of power, politics, economics, and geography, will be developed. Students will trace the trials, tribulations, and triumphs of race relations in the United States.

## Latin American History

**Course #: 2994**

**Recommended: Grades 9-12**

**Credit: .5 Unit Elective Course**

This course will survey Latin American civilization from early civilizations to the present, emphasizing the events, ideas, and institutions that have shaped, influenced, and defined Latin America's place in the world. This course will enable students to understand current events, crises, conflicts and their causes, and implications for the future. Most of the material used will be interdisciplinary and range from novels, historical works, scholarly articles, and excerpts from documentary and semi-documentary films.

## Criminal Justice

**Course #: 2420**

**Recommended: Grades 11-12**

**Credit: .5 Unit**

Students will study the problem of crime in America and the legislative and judicial responses to it. Topics will include crime statistics, law enforcement procedures, the judicial process, and appropriate legislation.

## 21st Century Global Issues

**Course #: 2999**

**Recommended: Grades 10-12**

**Credit: 0.5 Unit Elective Course**

**Note: This course is only offered at RHS.**

Students will consider world issues through the perspectives of history, science, statistics, and media. Students will study issues facing the modern world such as terrorism, population growth, environmental damage, and nuclear proliferation. In order to best analyze these issues, the class will draw strongly on the Virginia Standards of Learning for English (9-12), World Geography, World History, and Geography I & II, Probability & Statistics, and Earth Science. Students will interact with several forms of media, such as newspapers, magazines, and Internet broadcasts. The goal of

this course is to prepare each student with the knowledge, understandings, and skills necessary to engage with a diverse audience around these global issues.



## Career & Technical Education

The Career and Technical Education (CTE) curriculum provides classes that appeal to a wide variety of student interests and talents. There are both sequential courses (i.e., the two-year block programs) and non-sequential courses contained in the course offerings. Particular attention should be given to the prerequisites and length of time for completion of programs in the career and technical curriculum. The student should carefully consider his/her skills, physical stamina and interest before enrolling in a two-year program. Students who complete a CTE Program are eligible to take and Industry Certification or Credentialing Exam.

**Co-curricular Organizations** - Students are expected to participate in the co-curricular organizations for each career and technical area. The organizations are: FFA, FBLA, FCCLA, HOSA, DECA, TSA, and SkillsUSA. Organizational dues are required.

**NOTE:** Some of the programs require the purchase of workbooks, specified equipment or materials, and/or charge a lab fee.



## Agriculture

### Introduction to Animal Science

**Course No. 8008**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Industry Certification: Beef Quality Assurance (BQA)**

This course will explore different agricultural career skills pertaining to animal systems-particularly breeding, nutrition and management of livestock as well as mechanics laboratory experience (woodworking, metalworking, etc.). Students have the opportunity to participate in the co-curricular student organization, the National FFA. Participation is required in a supervised agricultural project related to the course. Students enrolled in this course will be expected to take an industry certification exam.

### Small Animal Care

**Course #: 8083**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

**Industry Certification: Continental Kennel Club Canine Care and Training, Level I (CCTP)**

Students enrolled in this course will be required to take an industry certification exam that includes eight hours of documented work with dog handling. This course

will introduce the student to common pet small animals - focusing on the breed variety, nutrition, health, and habitat maintenance. Students will be encouraged to participate in the co-curricular student organization, the National FFA. Students will be required to have a supervised agricultural project related to the course.

### **Small Animal Care with Cooperative Education**

**Course #: 8084** **Recommended: Grades 11-12**

**Credit: 2 Units**

**Industry Certification: Continental Kennel Club Canine Care and Training, Level I (CCTP)**

Students enrolled in this course will be required to take an industry certification exam that includes eight hours of documented work with dog handling. This course will introduce the student to common pet small animals - focusing on the breed variety, nutrition, health, and habitat maintenance. Students will be encouraged to participate in the co-curricular student organization, the National FFA. Students will be required to have a supervised agricultural project related to the course. Students will combine classroom instruction with supervised on-the-job training in a local agricultural business (an average of 11 hours per week for 36 weeks).

### **Agri-Business**

**Course #: 8022** **Recommended: Grades 10-12**

**Credit: 1 Unit**

**Prerequisites: Successful completion of Introduction to Animal Science, Plant Production or Small Animal Care**

**Industry Certification: Workplace Readiness for the Commonwealth**

Students develop necessary knowledge and skills for employment in the agricultural industry. The course emphasizes developing agricultural business personal finance, agriculture economics, and personal employment skills. Students will participate in laboratory skills based around woodworking, welding, plumbing, small engine maintenance, and electrical. Students have the opportunity to participate in the co-curricular student organization, the National FFA. Students who meet the early release requirements may participate in the agricultural cooperative education program and in this course must participate in a supervised agricultural project. Students enrolled in this course will be expected to take an industry certification exam.

### **Agri-Business with Cooperative Education**

**Course #: 8026** **Recommended: Grades 11-12**

**Credit: 2 Units**

**Prerequisites: Successful completion of Introduction to Animal Science, Plant Production or Small Animal Care**

**Industry Certification: Workplace Readiness for the Commonwealth**

Students develop necessary knowledge and skills for

employment in the agricultural industry. The course emphasizes developing agricultural business personal finance, agriculture economics, and personal employment. Students will participate in laboratory skills based around woodworking, welding, plumbing, small engine maintenance, and electrical. Students have the opportunity to participate in the co-curricular student organization, the National FFA. Students in this course must participate in a supervised agricultural project. Students will combine classroom instruction with supervised on-the-job training in a local agricultural business (an average of 11 hours per week for 36 weeks). Students enrolled in this course will be expected to take an industry certification exam.

### **Advanced Agri-Business**

**Course #: 8024** **Recommended: Grades 11-12**

**Credit: 1 Unit**

**Prerequisite: Successful completion of Agri-Business**

**Industry Certification: Workplace Readiness for the Commonwealth**

This course will enhance agricultural business opportunities from the perspective of the owner/operator. Students have the opportunity to participate in the co-curricular student organization, the National FFA. Students who meet the early release requirements may participate in the agricultural cooperative education program. Participation is required in a supervised agricultural project related to the course. Students enrolled in this course will be expected to take an industry certification exam.

### **Advanced Agri-Business with Cooperative Education**

**Course #: 8027** **Recommended: Grades 11-12**

**Credit: 2 Units**

**Prerequisite: Successful completion of Agri-Business**

**Industry Certification: Workplace Readiness for the Commonwealth**

This course will enhance agricultural business opportunities from the perspective of the owner/operator. Students have the opportunity to participate in the co-curricular student organization, the National FFA. Student participation is required in a supervised agricultural project related to the course. Students will combine classroom instruction with supervised on-the-job training in a local agricultural business (an average of 11 hours per week for 36 weeks). Students enrolled in this course will be expected to take an industry certification exam.

### **Horticulture Production**

**Course #: 8034** **Recommended: Grades 9-12**

**Credit: 1 Unit**

This course will explore the different areas within the Horticulture industry including highlighting career skills in floral, landscaping design, greenhouse management, and turf-grass. Students are encouraged to participate in



the co-curricular student organization, the National FFA. Participation is required in a supervised agricultural project related to the course.

### **Horticulture Production with Cooperative Education**

**Course #:** 8036                      **Recommended:** Grades 11-12  
**Credit:** 2 Units

This course will explore the different areas within the Horticulture industry, highlighting career skills in floral, landscaping design, greenhouse management, and turf-grass. Students are encouraged to participate in the co-curricular student organization, the National FFA. Participation is required in a supervised agricultural project related to the course. Students will combine classroom instruction with supervised on-the-job training in a local agricultural business (an average of 11 hours per week for 36 weeks).

### **Greenhouse Operations**

**Course #:** 8035C                      **Recommended:** Grades 11-12  
**Credit:** 1 Unit

**Prerequisite:** Horticulture Production

**Industry Certification:** Pesticide Management

This course will explore the operating procedures for a greenhouse including developing plant production facilities, business management, and marketing skills are emphasized to prepare students for careers in the greenhouse industry. Students are encouraged to participate in the co-curricular student organization, the National FFA. Students may qualify for work release. Participation is required in a supervised agricultural project related to the course. Students enrolled in this course will be expected to take an industry certification exam.

### **Greenhouse Operations with Cooperative Education**

**Course #:** 8037                      **Recommended:** Grades 11-12  
**Credit:** 2 Units

**Prerequisite:** Horticulture Production

**Industry Certification:** Pesticide Management

This course will explore the operating procedures for a greenhouse including developing plant production facilities, business management, and marketing skills are emphasized to prepare students for careers in the greenhouse industry. Students are encouraged to participate in the co-curricular student organization, the National FFA. Participation is required in a supervised agricultural project related to the course. Students will combine classroom instruction with supervised on-the-job training in a local agricultural business (an average of 11 hours per week for 36 weeks). Students enrolled in this course will be expected to take an industry certification exam.



## **Business & Information Technology**

### **I.T. Fundamentals (ITF)**

**Course #:** 6670                      **Recommended:** Grade 8 ONLY  
**Credit:** 1 High School Credit

This course introduces students to a wide range of basic computer topics including: an introduction to the Microsoft Office package (MS Word, Access, PowerPoint and Excel), computer networking, maintenance and troubleshooting, computer hardware, internet research (including usage and safety), basic web page creation using html programming, fundamental technology skills, and exploration of career opportunities within the Information Technology field. This course is only offered to 8th grade middle school students.

### **Microsoft Office Systems I (MOS I)**

**Course #:** 6612                      **Recommended:** Grades 9-12  
**Credit:** 1 Unit

**Industry Certification:** MOS Specialist

In this course students refine and develop skills through project-based learning. Students apply problem-solving skills to real-life situations through database, spreadsheet, presentation, and word processing software. This course also includes an introduction to the Internet, ethics, and Web based programming. This course will prepare students for Microsoft Office Specialist (MOS) certification.

### **Microsoft Office Systems II (MOS II)**

**Course #:** 6613                      **Recommended:** Grades 10-12  
**Credit:** 1 Unit

**Prerequisites:** MOS I

**Industry Certification:** MOS Specialist

Students will develop advanced skills in word processing, database management, and spreadsheets. Integrated software and multimedia applications are also covered. Use of the Internet is an integral part of the course, to include Web page development. This course will prepare students for Microsoft Office Specialist (MOS) certification.

### **Design, Multimedia & Web Technologies I (DMWTI)**

**Course #:** 6630                      **Recommended:** Grades 10-12  
**Credit:** 1 Unit

**Prerequisites:** MOS I or Teacher Recommendation

**Industry Certification:** MOS Specialist

Students develop proficiency in using desktop publishing software to create a variety of printed and electronic publications. Students will incorporate journalistic principles in design and layout of publications. Students will use sophisticated hardware and software to develop web sites



and multimedia presentations. The complexity and rapidly expanding usage of multimedia presentations in many organizations make this portion of the course very important for students planning to pursue business or further education opportunities. This course will prepare students for Microsoft Office Specialist (MOS) certification.

### **Design, Multimedia & Web Technologies II (DMWTII)**

**Course #:** 6633 **Recommended:** Grades 11-12

**Credit:** 1 Unit

**Prerequisite:** DMWTI

**Industry Certification:** MOS Specialist

Students develop advanced skills in creating interactive media, web sites, and publications for print and electronic distribution. Students work with sophisticated hardware and software, applying skills learned to real-world projects. Completion of this course may prepare students for industry certifications. This course will prepare a student for Microsoft Office Specialist (MOS) certification.

### **Business Management**

**Course #:** 6135 **Recommended:** Grades 10-12

**Credit:** 1 Unit

**Industry Certification:** Workplace Readiness for the Commonwealth

In this course, students will study basic management concepts and leadership styles as they explore business ownership, planning, economics, international business, and human relations issues such as employee motivation and conflict resolution. Quality concepts, project management, problem-solving, and ethical decision making are integral parts of this course. Students enrolled in this course will be expected to take an industry certification exam.

### **Economics & Personal Finance (EPF)**

**Courses #:** 6120B **Recommended:** Grades 10-12

**Credit:** 1 Unit

**Industry Certification:** W!SE Financial Literacy

Students will learn how to navigate financial decisions and how to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career readiness. Students will complete the Ever-Fi Financial Literacy module as an online experience. To meet graduation requirements, the W!SE Financial Literacy test (State-approved Industry credential) will be administered to all students enrolled in Economics & Personal Finance.

### **IB Business Management (SL)**

**Course #:** IB6135 **Recommended:** Grades 11-12

**Credit:** 1 Unit

**Examination:** IB Business Management exam

**Note:** This course meets the Economics & Personal Finance graduation requirement

This two-year course will develop students' knowledge and understanding of business management theories. Students will learn to analyze, discuss, and evaluate business activities at local, national, and international levels. Students will explore a range of organizations from all sectors and the socio-cultural and economic contexts in which those organizations operate. The course will cover key characteristics of business and the business functions of human resource management, finance and accounting, marketing, and operations management. The course will allow students to develop a holistic understanding of today's complex and dynamic business environment.

### **Cybersecurity Fundamentals**

**Course #:** 6302 **Recommended:** Grades 9-12

**Credit:** 1 Unit

This course will focus on the evolving and all-pervasive technological environment with an emphasis on securing personal, organizational, and national information. Students will be introduced to the principles of cybersecurity, explore emerging technologies, examine threats and protective measures, and investigate the diverse high-skill, high-wage, and high-demand career opportunities in the field of cybersecurity. Students enrolled in this course will be expected to take an industry certification exam.

### **Cybersecurity Networking Defense Operations**

**Course #:** 6304 **Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisite:** Cybersecurity Fundamentals

This course is designed to teach many aspects of computer support, network configuration and network administration. Students learn network architecture, topologies and exploration of network media. Students will learn how to monitor network traffic and analyze network systems for security vulnerabilities using tools such as WireShark, Nmap and Netcat. This course may cover software-based network operating systems, such as Windows Server or Linux. This course will prepare students with a foundation in network architecture with a focus on identifying security measures to physical and digital threats to networking systems. Students enrolled in this course will be required to take an industry certification exam.

## Advanced Cybersecurity Networking Defense Operations

Course #: 6306

Recommended: Grades 11-12

Credit: 1 Unit

### Prerequisites: Cybersecurity Operations

Students will explore security analysis and network security, monitoring and detecting security incidents in information systems and networks. The course introduces tools and tactics to manage cybersecurity risks, identify common threats, evaluate an organizations security, collect and analyze cybersecurity intelligence, and handle cybersecurity incidents. Students will understand threats, attacks and vulnerabilities, architecture and design considerations in a business environment, implementation of security operations, risk and incident response, ethics, and cryptography.

## IB Information Technology Global Society

Course #: IB6613

Recommended: Grade 11

Credit: 1 Unit

### Prerequisite: Admittance to the IB Program

In this course, students will participate in discussion of social and ethical considerations related to IT developments; scenarios used to address IT developments in specified themes; and the terminology of IT systems, concepts, and tools relating to IT developments. The course will take an integrated approach, encouraging students to make informed judgments and decisions about the role of information and communication technologies in contemporary society.



## Education & Training

### Dual Enrollment Teachers for Tomorrow I (EDU 200)

Course#: 9063

Recommended: 10-12

Credit: 2 Units (also transferable college credit hours (3) with a grade of 70 or better each semester)

### Prerequisite: 2.7 GPA, application, and teacher recommendations

Teachers for Tomorrow I is a Germanna Community College course that is taught at the high school. This course strives to kindle student interest, understanding, and appreciation of the teaching profession. This DE program explores careers in education. Students learn history, pedagogy, governance, and best practices of teaching. Students will also participate in leadership opportunities through the student organization, Educators Rising (conference & competition).

### Dual Enrollment Teachers for Tomorrow II (EDU 207)

Course#: 9072C

Recommended: Grade 11-12

Credit: 2 Units (also transferable college credit hours (3) with a grade of 70 or better each semester)

### Prerequisite: Teachers for Tomorrow I

Teachers for Tomorrow II is a Germanna Community College course that is taught at the high school. Students continue to explore careers in the Education and Training Cluster and pathways. This course provides the opportunity for students to prepare for careers in education as they research postsecondary options, learn about the process of teacher certification in Virginia, and participate in a practicum experience.



## Family & Consumer Sciences

### Individual Development

Course #: 8210

Recommended: Grades 9-12

Credit: 1 Unit

This course will focus on hands-on problem solving of relevant issues faced by teens at this critical stage of their development. Emphasis will be placed on enhancing personal development and self-esteem, managing stress, achieving career goals, enhancing family and peer relationships, and managing conflict. In addition, the course will focus on the practical problems related to managing human and material resources, making consumer decisions related to clothing, healthy food choices, and family housing. All students will participate in the co-curricular organization FCCLA. Students enrolled in this course will be expected to take an industry certification exam.

### Introduction to Culinary Arts

Course #: 8274

Recommended: Grades 9-12

Credit: 1 Unit

Students investigate food safety and sanitation, culinary preparation foundations, basic culinary skills, diverse cuisines, service styles, nutrition and menu development, and the economics of food. Students also explore postsecondary education options and career opportunities within the food service industry. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQBWL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

### Child Development & Parenting

Course #: 8232

Recommended: Grades 9-12

Credit: 1 Unit

Students will focus on balancing work and family, analyzing

parenting roles and responsibilities, ensuring a healthy start for mother and child, evaluating support systems that provide services for parents, and evaluating parenting practices that maximize human growth and development. Although this course is available to all high school students, due to the sensitive topics discussed in this class, it is highly recommended for mature students. All students will participate in the co-curricular organization FCCLA. Students enrolled in this course will be expected to take an industry certification exam.

### **Introduction to Hospitality, Tourism & Recreation**

**Course #: 8259**

**Recommended: Grades 9-12**

**Credit: 1 Unit**

This course will focus on developing professional skills and using emerging technologies to prepare for employment in the global industry, rich in diverse career opportunities. The program will include instruction in the industries of lodging, food and beverage, travel and tourism, and recreation and fitness. All students will participate in the co-curricular organization FCCLA. Students enrolled in this course will be expected to take an industry certification exam.



### **Marketing Exploration**

**Course #: 8110**

**Recommended: Grades 9-10**

**Credit: 1 Unit**

Marketing Exploration will provide students with the competencies needed for successful entry-level employment in marketing occupations. Students will learn social, economic, and marketing skills necessary for employment in marketing occupations including retail, wholesale, and service businesses. Specific skills learned will include interviewing, resume-writing, selling, marketing, promotion, advertising, business math, and business communications.

### **Fashion Marketing**

**Course #: 8140**

**Recommended: Grades 10-12**

**Credit: 1 Unit**

**Industry Certification: Customer Service**

Fashion Marketing will provide students with a basic knowledge of the apparel and accessories industry and the skills necessary for successful entry-level employment in fashion marketing careers. Students will learn how apparel and accessories are designed, manufactured, distributed, and promoted. Students will learn how trends develop; how buyers select merchandise for retail stores; and how the basic marketing functions of planning, pricing, promoting and distributing work in the fashion industry. Students will also learn basic human relations, math, and economics skills as they apply to this fast-paced industry.

### **Sports & Entertainment Marketing**

**Course #: 8175**

**Recommended: Grades 10-12**

**Credit: 1 Unit**

**Industry Certification: Customer Service**

This introductory course will help students develop a thorough understanding of fundamental marketing concepts and theories as they relate to the sports and entertainment industries. Students will investigate the components of customer service skills, branding, product development, pricing and distribution strategies, business structures, sales processes, social media, sponsorships and endorsements, as well as promotion plans needed for sports and entertainment events. The course will also support career development skills and will allow students to explore career options.

### **Marketing with Co-Op (Supervised on-the-job training)**

**Course #: 8120**

**Recommended: Grades 11-12**

**Credit: 2 Units (Meets 1 block and has a job requirement)**

**Prerequisites: Marketing Exploration (waived with instructor's approval)**

**Industry Certification: Customer Service**

This course will provide students with competencies that enable them to obtain and succeed in their chosen marketing occupation. Students will develop skills in selling, communications, product development, promotion, interviewing, and human relations. Skills learned in this course can be applied to a wide range of career options. Students will combine classroom instruction with supervised on-the-job training in a local marketing business (an average of 11 hours per week for 36 weeks). Students enrolled in this course will be required to take an industry certification exam.

### **Marketing**

**Course #: 8121**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Prerequisites: Marketing Exploration (waived with instructor's approval)**

**Industry Certification: Customer Service**

This course will provide students with competencies that enable them to obtain and succeed in their chosen marketing occupation. Students will develop skills in selling, communications, product development, promotion, interviewing, and human relations. Skills learned in this course can be applied to a wide range of career options. Students enrolled in this course will be required to take an industry certification exam.

### **Advanced Marketing Co-Op (Supervised on-the-job training)**

**Course #: 8130**

**Recommended: Grade 12**

**Credit: 2 Units (meets 1 block and has a job requirement)**

**Prerequisites: Marketing 8120/8121 or for seniors only Sports & Entertainment Marketing 8175 and/or Fashion**

## **Marketing 8140 with instructor's approval**

### **Industry Certification: Customer Service**

This course will provide students with in-depth knowledge of the marketing functions and prepare them for employment in supervisory and/or management positions. Competencies learned will include supervision, human resource development, purchasing and inventory control, distribution, market planning, and sales promotion. Students will combine classroom instruction with supervised on-the-job training in a local marketing business (an average of 11 hours per week for 36 weeks). Students enrolled in this course will be required to take an industry certification exam.

## **Marketing Management**

**Course #:** 8132

**Recommended: Grade 12**

**Credit:** 1 Unit

**Note:** College credit with an appropriate score on the CLEP

### **Industry Certification: Customer Service**

This is a specialized course for seniors with a career interest in marketing, management, or entrepreneurship who plan to attend college and/or students planning to major in medicine, law, engineering, or other fields who will be responsible for the operation of a practice or business. The course will provide students with an understanding of planning, implementing, and controlling marketing activities. Activities will include designing products/services to meet customer needs, designing pricing strategies to achieve profitable use of resources, implementing distribution procedures, and evaluating personal selling and sales promotion activities to assure users have sound basis for their buying choices. Upon successful completion of this course, students will be eligible to take the College Level Examination Program (CLEP). Students enrolled in this course will be required to take an industry certification exam.

## **Technology Education**

## **Manufacturing Systems**

**Course #:** 8425

**Recommended: Grades 9-12**

**Credit:** 1 Unit

### **Industry Certification: Workplace Readiness for the Commonwealth**

This course will provide an orientation to careers in various fields of manufacturing. Emphasis will be placed on manufacturing systems, safety, materials, production, business concepts, and the manufacturing process. Students will participate in individual and team activities to create products that demonstrate critical elements of manufacturing.

## **Construction Technology**

**Course #:** 8431

**Recommended: Grades 10-12**

**Credit:** 1 Unit

### **Prerequisite: Manufacturing Systems**

### **Industry Certification: Workplace Readiness for the Commonwealth**

Students will build structures and engage in problem-based learning that exposes them to commercial, industrial, residential, public works, and institutional technologies to help them understand the jobs of construction careers. They will learn proper safety procedures for tools and machinery, vocabulary and terms associated with construction, blueprint reading and symbols associated with architecture, and math concepts and principles used in construction. Students enrolled in this course will be expected to sit for an industry certification credential.

## **Technical Drawing & Design**

**Course #:** 8435

**Recommended: Grades 9-12**

**Credit:** 1 Unit

In this foundation course, students learn the basic language of technical drawing and design, and they design, sketch, and make technical drawings, models, or prototypes of real design problems. The course is especially recommended for future engineering and architecture students.

## **IB Design & Technology (SL)**

**Course #:** IB4585 & IB4586

**Recommended: Grades 11-12**

**Credit:** 1 Unit per course

### **Prerequisites: Technical Drawing & Design and Admittance to the IB program**

### **Examination: IB Design Tech Exam**

This two-year course will require the use of the design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems; the development of feasible solutions; and the testing and evaluation of the solution can be defined as a model, prototype, product or system that students have developed independently. DP Design Technology will help students develop critical thinking and design skills, which they can apply in a practical context. Students will complete a design project and two external assessments at the conclusion of the course.

## **Engineering Drawing & Design**

**Course #:** 8436

**Recommended: Grades 10-12**

**Credit:** 1 Unit

### **Prerequisites: C or better in Technical Drawing & Design**

### **Industry Certification: AutoCAD**

Students will use a graphic language for product design, technical illustration, evaluation of designs, and engineering drawings. Students will increase their understanding of drawing techniques learned in the



prerequisite course and gain an understanding of technical drawing careers in modern industry. Adhering to established engineering standards, students will use Computer Assisted Drafting (CAD) equipment, drafting skills and techniques, and descriptive geometry to solve design problems. They will work in teams to design solutions for an identified need. This course prepares students for the Autodesk Certified User Examination approved by the Virginia Board of Education. During this second year course, students will sit for the AutoCAD Autodesk Certified User Examination.

### **Architectural Drawing & Design**

**Course #:** 8437

**Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisite:** Technical Drawing & Design

**Industry Certification:** Revit

Students learn the principles of architecture and increase understanding of working drawings and construction techniques learned in Technical Drawing & Design. Experiences includes residential and commercial building designs, rendering, model development, and structural details. Students use sketching, technical drawing and computer-aided drawing and design (CADD) equipment. This course is especially beneficial to future architects, interior designers, or home builders. Students will be required to sit for an industry certification.

### **Engineering Explorations**

**Course #:** 8450

**Recommended:** Grades 9-12

**Credit:** 1 Unit

Students will examine technology and engineering fundamentals in relation to solving real-world problems. Students will investigate engineering history, including major engineering achievements, and they examine the principle engineering specialty fields and their related careers. Students will practice engineering fundamentals, using mathematical and scientific concepts, and they will apply the engineering design process through participation in hands-on engineering projects. Students will communicate project-related information through team-based presentations, proposals, and technical reports.

### **Engineering Studies**

**Course #:** 8491

**Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisite:** C or better in Engineering Explorations

**Industry Certification:** Inventor

This course is designed for students who intend to pursue engineering studies in college. Engineering Studies will prepare students by emphasizing integration of Mathematics, Science, and English concepts and skills into engineering problems in a curriculum demanding rigorous study habits and other college-level skills. Students will be encouraged to become routinely inquisitive through

brainstorming and prototyping. Students will practice basic engineering skills and communication of technical information while applying the engineering design process to complete engineering projects. This course will prepare students for the Autodesk Inventor Examination approved by the Virginia Board of Education.



## **Trade & Industry**

Courses listed in this section are taught at the Spotsylvania Career & Technical Center. Students ride a bus to the Center and back to their home school for these classes.

There is an application process in place for admittance to many of these classes. Students should see their school counselor for application materials. Preference for enrollment to classes that have a 1st and 2nd year, which lead to a program completion certificate will be given to 10th and 11th grade students. Twelfth grade students are allowed to enroll in first year courses or Career Pathways courses only on a space available basis.

Each course is a two or four-period block. Students participate in various work-based learning opportunities. Students who select these courses should understand that participation in co-curricular student organizations is strongly encouraged. Students also participate in local, state, and national skills competitions. All Career and Technical Center students are expected to join, and participate in, their trade-related student organizations.

### **Carpentry I**

**Course #:** 8601A

**Recommended:** Grades 10-11

**Credit:** 2 Units

**Industry Certifications:** International Code Council  
Certificates of Achievement Exams and OSHA 10  
**SCTC Application is required for admission**

Students will learn about a variety of building materials, proper use of tools, leveling, and layout. The class will cover building plans, reading building specifications, codes, and footings of foundations, forms, and roofing. Students will learn about shop safety and OSHA standards on the job. House construction will be the main line of study with commercial building construction mixed in. A background in technical drawing, math, and general shop procedures is recommended.

### **Carpentry II**

**Course #:** 8602A

**Recommended:** Grades 11-12

**Credit:** 2 Units

**Prerequisites:** Carpentry I

**Industry Certifications:** International Code Council  
Certificates of Achievement Exams and OSHA 10

**SCTC application is not required upon successful completion of prerequisite course**

In this course, the installation of windows and doors, exterior finishing, insulation, interior finishing, and trim will be covered. Students will be introduced to stair construction, cabinet making, and installation of insulation, drywall, and trim. Other forms of optional construction will also be also covered. Classroom instruction will be supplemented with a variety of laboratory projects. Occasionally, Carpentry II students will work on small local construction jobs outside of school. A senior work experience program will be available to qualified students.

**Electricity I (Residential Wiring)**

**Course #: 8533A Recommended: Grades 10-11**

**Credit: 2 Units**

**Industry Certifications: International Code Council Certificates of Achievement Exams and OSHA 10**

**SCTC Application is required for admission**

Students will be taught different types of circuits along with the basics of residential and commercial wiring. Students will use a variety of hands-on classroom activities to master wiring concepts and test electrical appliances. The cause and effect of electricity and electronics will be studied. A good background in mathematics, basic technical drawing, and physical science is very helpful.

**Electricity II (Residential Wiring)**

**Course #: 8534A Recommended: Grades 11-12**

**Credit: 2 Units**

**Prerequisites: Electricity I**

**Industry Certifications: International Code Council Certificates of Achievement Exams and OSHA 10**

**SCTC application is not required upon successful completion of prerequisite course**

Students will study basic electronics, electrical procedures for maintenance, and the service and repair of AC and DC electric motors. Students will learn the theory of electricity and electronics, mathematics as it applies to electricity and wiring, along with the reading of schematics and other scientific principles. Class work will include a variety of wiring projects both in the classroom and occasionally outside the classroom.

**Electricity III**

**Course #: 8535 Recommended: Grade 12**

**Credit: 2 Units**

**Prerequisites: Electricity I and/or Electricity II plus teacher recommendation**

Through hands-on experiences, students continue building skills in the installation, operation, maintenance, and repair of electrical systems, with emphasis on industrial applications. They also study lighting fixtures, overcurrent protection, service equipment, motor controls, transformers, grounding, and the National Electrical Code (NEC) Book.

**Heating, Ventilation, Air Conditioning & Refrigeration (HVAC/R) I**

**Course #: 8503A**

**Recommended: Grades 10-11**

**Credit: 2 Units**

**Industry Certification: EPA Technician Exam 608**

**SCTC Application is required for admission**

This course will provide students with a solid foundation in basic knowledge and skills for entering the HVAC/R field. Instruction will include lab and trade safety, hand tool usage, principles of thermodynamics, refrigeration cycle, compressors, piping and tubing instruction, soldering and brazing, mathematics for HVAC/R, electrical fundamentals, and customer relation skills. Students will learn EPA laws and regulations pertaining to proper refrigeration handling. Students will have the opportunity to receive Environmental Protection Agency (EPA) Certification for refrigerant recovery.

**Heating, Ventilation, Air Conditioning & Refrigeration (HVAC/R) II**

**Course #: 8504A**

**Recommended: Grades 11-12**

**Credit: 2 Units**

**Prerequisites: HVAC/R I**

**Industry Certification: EPA Technician Exam 608**

**SCTC application is not required upon successful completion of prerequisite course**

This course will provide students with opportunities to further their knowledge and skills in the field of HVAC/R. Instruction will include troubleshooting electrical circuits, residential and commercial systems, heat pumps, and gas and oil furnaces. Coverage specific to refrigeration in the food service industry will be emphasized, with practical applications and lab activities. Emphasis will continue on EPA laws and regulations pertaining to proper refrigeration handling. Students will have the opportunity to receive Environmental Protection Agency (EPA) Certification for refrigerant recovery and additional credentials.



**Information Technologies**

**Computer Systems Technology I**

**Course #: 8622**

**Recommended: Grades 10-12**

**Credit: 2 Units**

**SCTC Application is required for admission**

Students enter the world of computer technology and gain practical experience in disassembling, upgrading, troubleshooting, and assembling computer systems and laptops. Students will install, configure, and secure various operating systems. Students will troubleshoot computers and peripherals and use system tools and diagnostic software. They develop skills in computer networking and resource sharing. Students will also explore the relationships between internal and external computer components.

## Computer Systems Technology II

Course #: 8623

Recommended: Grades 11-12

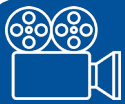
Credit: 2 Units

**Prerequisites:** Computer Systems Technology I

**Industry Certification:** CompTIA A+, ITF+

**SCTC application is not required upon successful completion of prerequisite course**

This advanced course provides students with training in procedures for maintaining, troubleshooting, and securing computer systems, portable devices, and networks. Students will explore: basic network design, connectivity, and infrastructure; basic cybersecurity concepts; computer and mobile device hardware and operating systems; customer service and industry best practices; cloud computing and virtualization; basic software development and database management. Students will gain a basic understanding of emerging information technologies including mobile, cloud and virtualization. The course prepares students for postsecondary education and training, and a successful career in information technology. Upon completion of the course, students may qualify to take CompTIA's ITF+ and A+ certification exams.



## Mass Communications

### Introduction to Video Production

Course #: 8688

Recommended: Grades 9-11

Credits: 2 Units

**SCTC Application is required for admission**

Students will learn to think and work like media producers by engaging in hands-on production projects. Students will also use theoretical and hands-on experiences to understand the media production process as they learn industry-standard tools. They will explore jobs and careers in the dynamic and growing industry of television and media production and understand the impact of media and its function as entertainment, persuasion, information, and instruction.

### Advanced Video Production

Course #: 8689

Recommended: Grades 10-12

Credit: 2 Units

**Prerequisites:** Video Production I

**Industry Certification:** Adobe Certified Professional Premiere Pro

**SCTC application is not required upon successful completion of prerequisite course**

This course builds upon knowledge and skills from Intro to Video Production. Students will generate fiction and non-fictional media content further enhancing their digital media production skills by entering the studio and control rooms to become proficient with industry-standard equipment and software. Students will put their knowledge of digital media production into action with the

use of sophisticated tools and equipment while developing personal portfolios. Students will create original productions, assemble a professional digital portfolio, and investigate the dynamic media production industry. Students will research postsecondary opportunities and formulate strategies for both college and career success. At the end of the second year, students take the industry credential: Adobe Certified Professional Premiere Pro exam.



## Transportation

### Auto Collision Repair I

Courses #: 8676

Recommended: Grade 11

Credit: 4 Units

**Industry Certification:** ASE Test in Collision Repair

**SCTC Application is required for admission**

The Auto Collision Repair Program is based on an I-CAR and NATEF program of instruction in the repair of automobile collision damage. The student, through a variety of classroom and hands-on shop activities, will be prepared in the basics of non-structural analysis and damage repair, structural analysis and damage repair, and refinishing. Experiences in Applied Science and Technology and especially in sheet metal work are helpful to the student. The student should have a strong interest in automobiles and a creative ability with metals and plastics. Students will be eligible to take various ASE tests in Collision Repair.

### Auto Collision Repair II

Course #: 8677

Recommended: Grade 12

Credit: 4 Units

**Prerequisites:** Auto Collision Repair I

**Industry Certification:** ASE Test in Collision Repair

**SCTC application is not required upon successful completion of prerequisite course**

In Auto Collision Repair II, the student will improve upon competencies learned in Auto Collision Repair I, including the areas of structural repair and non-structural damage repair. Advanced topics, such as frame inspection and repair, plastic repair and adhesives, will be covered. Refinishing techniques will be improved as well as solving paint application problems and learning the operation of a computerized paint-mixing system. Body shop management skills are developed, and the student will be introduced to estimating repair damage. In the second semester, the student may be eligible for the senior work experience program.

### Automotive Service Technology I

Course #: 8506

Recommended: Grade 11

Credit: 4 Units

**Industry Certification:** ASE Tests in Automotive

**SCTC Application is required for admission**



In Automotive Service Technology, students will be introduced to selective theories and skills required of an Automotive Service Excellence (ASE) certified automotive technician. Automotive Service Technology I uses the National Automotive Technician Educational Foundations (NATEF) Curriculum and will include instruction in career opportunities, safety, tool and equipment use, and general shop practices. In-depth theory and diagnosis and repair of the automotive electrical and brake systems will be covered as well as a brief introduction to manual transmissions and drive lines. The student will be exposed to the automotive service industry through classroom lectures; audio-visual media; shop demonstrations; and hands-on experience using components, donated cars and trucks, and customer motor vehicles. Students will be eligible to participate in the Automotive Youth Services Program (AYES), which involves interning, and job shadowing opportunities.

### **Automotive Service Technology II**

**Course #:** 8507

**Recommended:** Grade 12

**Credit:** 4 Units

**Prerequisites:** Automotive Service Technology I

**Industry Certification:** ASE Tests in Automotive

**SCTC application is not required upon successful completion of prerequisite course**

Automotive Service Technology II will continue with the National Automotive Technician Educational Foundations (NATEF) Curriculum and will include the theory of operation and service of the suspension and steering systems and fuel, ignition, and emission systems. Limited instruction will also given in automotive air conditioning. Students will be encouraged to take various Automotive Service Excellence (ASE) tests, as well as participate in the Automotive Youth Services Program (AYES), which involves interning and cooperative education experiences.

## **Personal Services**

### **Cosmetology I**

**Course #:** 8745

**Recommended:** Grade 11

**Credit:** 4 Units

**SCTC Application is required for admission**

In this introductory course, students will study hair, skin, and nails and their related care. Students will be grounded in theory as they prepare to practice procedures in a clinical lab setting or classroom, using manikins for manipulative skill practice. Theory will include study of bacteriology, chemistry, math, and terminology related to the cosmetology field. The first-year course will emphasize personal safety, professionalism, and sanitation and disinfection of equipment and facilities. Students will develop skills in shampooing and conditioning hair, as well as styling and cutting hair and develop skills in manicure and pedicure procedures.

### **Cosmetology II**

**Course #:** 8746

**Recommended:** Grade 12

**Credit:** 4 Units

**Prerequisites:** Cosmetology I

**Industry Certification:** Virginia State Licensing Exam

*(Social Security Number and other documentation are required for this credential)*

**SCTC application is not required upon successful completion of prerequisite course**

In this advanced course, students will build on their theoretical foundation of general sciences and practices in cosmetology to increase proficiency in hair cutting and styling on live models, with attention to professionalism, client consultation, safety, and infection control. Students will be trained in safe chemical processes related to permanent waves, relaxers, soft-curl permanent waves, lightening, and coloring hair. They will also develop artistic skills with wigs and hair additions. In addition, students will learn to care for skin, hands, and feet, developing experience in providing facials, manicures, pedicures, and nail enhancements. A business management unit will focus on managing the salon. This course will prepare students for the Virginia State Licensing Exam, which requires a Social Security Number and other documentation to take this examination.

## **Architectural/Mechanical Drafting, Design & CAD**

### **Drafting, Design & CAD I**

**Course #:** 8530

**Recommended:** Grades 9-11

**Credit:** 2 Units

**SCTC Application required to be considered for admission**

This class introduces students to Drafting by focusing on the fundamental concepts, techniques, and standards used to create drawings. The course begins with the use of manual drafting equipment to create drawings and produces a solid foundational understanding of how drafters interpret and visualize 3D objects and place them into a two dimensional format. Additionally, the course introduces Computer Aided Design (CAD). During this phase, students will apply mastered skills to create CAD drawings while learning dimensioning, section and pictorial view creation, and 3D printing. This beginning level drafting class provides the student a great foundation for the transition to Drafting II.

### **Drafting, Design & CAD II Mechanical**

**Course #:** 8531

**Recommended:** Grades 10-12

**Credit:** 2 Units

**Prerequisites:** 8530 Drafting, Design and CAD I

**Industry Certification:** ADDA Certified Drafter exam

**SCTC application is not required upon successful completion of prerequisite course**

Students will focus on the mechanical engineering aspect of drafting and design. Both Computer Aided Design



(CAD) and manual drafting will be taught and utilized in class. Students will learn how to create various types of section views, isometric views, oblique views, perspective views, working drawings, and assembly drawings. Other topics learned and drawn will include bolt and screw threads, welding symbols, geometric dimensioning and tolerancing, gear design, and auxiliary views. In addition to drawings, students will also learn about basic shop processes and machine shop layout. At the completion of the course students will be eligible to take the American Design Drafting Association (ADDA) Apprentice Drafter Certification exam. Students also have the option to enroll in both Drafting II classes (course numbers 8531 and 8532) for a four-credit option.

### **Drafting, Design & CAD II Architectural**

**Course #:** 8532

**Recommended:** Grades 10-12

**Credit:** 2 Units

**Prerequisites:** 8530 Drafting, Design and CAD I

**Industry Certification:** ADDA Certified Drafter exam

**SCTC application is not required upon successful completion of prerequisite course**

Students will focus on the residential drafting aspect of architectural design. Both Computer Aided Design (CAD) and manual drafting will be taught and utilized in class. Students will learn construction symbols and terminology; how to create various wall sections; stair lay-outs; wall sections; plot layouts including house style and orientation; the rules for architectural dimensioning; and how to draw a complete set of house plans including floor plan, foundation plan, electrical plan, elevations views, plot layouts and artistic renderings. At the completion of the course students will be eligible to take the American Design Drafting Association (ADDA) Apprentice Drafter Certification exam. Students also have the option to enroll in both Drafting II classes (course numbers 8531 and 8532) for a four-credit option.

### **Welding II**

**Course #:** 8673A

**Recommended:** Grades 11-12

**Credit:** 2 Units

**Prerequisites:** Welding I

**Industry Certification:** NOCTI Welding exam

**SCTC application is not required upon successful completion of prerequisite course**

Advanced welding students will fine-tune their craft and perform welds in various positions, using multiple welding processes. Welding is required by a wide variety of industries, anywhere fusible materials and high heat are needed to manufacture, repair, or alter products. Professional welders are in high demand and can earn accordingly.



### **Culinary Arts I**

**Course #:** 8275A

**Recommended:** Grades 10-11

**Credit:** 2 Units

**Industry Certification:** PROSTART 1 and ServSafe

**SCTC Application required to be considered for admission**

Students will participate in the National Restaurant Association PROSTART Year 1 program of study. Students will learn hands-on restaurant training and sanitation and acquire skills as waiter staff and kitchen staff. The fundamentals of baking and pastry making, as well as food preparation techniques, equipment identification, meal presentation, menu planning, and time management will also be taught. Students will receive instruction in microbiology of food spoilage, nutrition, storage preparation, food handling, and cost accounting. Life Management Skills will provide students with basic skills for success in Culinary Arts. Students will spend a major portion of their class time in kitchen production. Students will be eligible for the PROSTART 1 certification at the end of the year.

### **Culinary Arts II**

**Course #:** 8276A

**Recommended:** Grades 11-12

**Credit:** 2 Units

**Prerequisites:** Culinary Arts I

**Industry Certification:** PROSTART 2 and ServSafe

**SCTC application is not required upon successful completion of prerequisite course**

Students will participate in the National Restaurant Association PROSTART Year 2 program of studies. Students will participate in the National Restaurant Association ServSafe program of studies for national certification. Instruction will include the preparation of special dishes and salads, methods of broiling, deep fat frying, steaming, menu planning, commercial food management, and management of food service personnel, waiter and waitress training, and laboratory and food operation. Instruction will also include advanced baking and pastry techniques, commercial



### **Welding I**

**Course #:** 8672A

**Recommended:** Grades 10-11

**Credit:** 2 Units

**Industry Certification:** OSHA 10 Card

**SCTC Application required to be considered for admission**

Welding is required by a wide variety of industries, anywhere fusible materials and high heat are needed to manufacture, repair, or alter tools and products. Students are taught to use manual welding, cutting, and electrical arc welding processes to fabricate and join metal parts according to diagrams, blueprints, and specifications. Students will also learn safety-related practices and techniques, including earning the Occupations Safety and Health Administration (OSHA) 10 card.

food management, management of food service personnel, catering, menu design, and product pricing. Students will spend a major portion of their class time in kitchen production. Students will be eligible for the PROSTART 2 certification at the end of the year. This certification will allow for articulation with various post-secondary culinary training institutions.

### **Baking and Pastry Specialization**

**Course #:** 8279                      **Recommended:** Grades 11-12

**Credit:** 2 Units

**Prerequisites:** Culinary Arts I

**Industry Certification:** PROSTART 2 and ServSafe

**SCTC application is not required upon successful completion of prerequisite course**

The Culinary Arts Specialization course provides students with skills and knowledge to pursue careers in the food service industry, specifically, baking and pastry. In a hands-on environment, students apply nutritional principles, plan menus, use business and mathematical skills, select and maintain food service equipment, and adhere to safety and sanitation standards. The curriculum continues to place a strong emphasis on science and mathematics knowledge and skills, critical thinking, practical problem-solving, and entrepreneurial opportunities within the field of culinary arts.

### **Early Childhood Education I**

**Course #:** 8285A                      **Recommended:** Grades 11-12

**Credit:** 2 Units

**SCTC Application required to be considered for admission**

Students will be prepared to be primary providers of home, family, or institution-based childcare services by focusing on lesson planning, organizing, conducting meaningful play and learning activities, guidance techniques, facility design, child monitoring and supervision, childcare ethics, record keeping, and referral procedures. Critical thinking, practical problem solving, and entrepreneurship opportunities within the field of early childhood education will be emphasized. Practical experiences (e.g., on-site lab, local daycare centers, elementary schools, other institutions) under the supervision of the instructor will be required. Students will also prepare for continuing education leading to careers in early childhood fields (e.g., medical, social services, and education). Work-based learning methods of instruction will be encouraged for this course. Students will combine classroom instruction and supervised on-the-job training in an approved position with continuing supervision throughout the school year.

### **Early Childhood Education II**

**Course #:** 8286A                      **Recommended:** Grade 12

**Credit:** 2 Units

**Prerequisites:** Early Childhood Education I

**Industry Certification:** AAFCS: Early Childhood Education Examination

**Note: Students working in local daycare centers will be required to pay for background checks and TB tests, as well as provide their own transportation.**

**SCTC application is not required upon successful completion of prerequisite course**

Students will focus on occupational skills needed by personnel employed in early childhood-related fields such as education, medical/health care, social services, counseling, psychology, and entrepreneurship. Workbased learning experiences (e.g., on-site lab, local daycare centers, elementary schools, other institutions) under the supervision of the instructor will be required. Critical thinking, practical problem solving, and entrepreneurship opportunities within the field of early childhood education will be emphasized. Work-based learning methods of instruction will be encouraged for this course.

### **Hospitality, Tourism and Recreation I**

**Course #:** 8202

**Recommended:** Grades 10-11

**Credit:** 2 Units

**Industry Certification:** Guest Service Gold Tourism Certification

**SCTC Application required to be considered for admission**

Students begin preparation for employment in hospitality industries by focusing on principles of operations in food services, recreation, hospitality planning, and business relations. Special attention is paid to the development of culinary skills (food sanitation, food preparation, and serving) and customer service skills.

### **Hospitality, Tourism and Recreation II**

**Course #:** 8203

**Recommended:** Grades 11-12

**Credit:** 2 Units

**Prerequisites:** Hospitality, Tourism and Recreation I

**Industry Certification:** Front Desk Representative Certification

**SCTC application is not required upon successful completion of prerequisite course**

Students continue preparation for employment in hospitality industries by focusing on principles of operations in travel and tourism, lodging, food services, hospitality planning, and business relations. Special attention is paid to the development of skills used in the lodging industry (rooms, sales and marketing, front office, and housekeeping divisions) and customer-service skills. Contextual instruction and student participation in co-curricular career and technical student organization (CTSO) activities will develop leadership, interpersonal, and career skills. High-quality work-based learning (HQBWL) will provide experiential learning opportunities related to students' career goals and/or interests, integrated with instruction, and performed in partnership with local businesses and organizations.

## Health & Medical Cluster

### **Veterinary Science I / DE Veterinary Science I**

**Course #:** 8088/8088D      **Recommended:** Grades 11-12

**Credit:** 2 Units

**Dual Enrolled Credit:** 6 credits through Blue Ridge Community College

**Prerequisites:** (Recommended) Small Animal Care

**Industry Certification:** Certified Vet Assistant Exam

**SCTC Application is required for admission**

This course will prepare students for postsecondary education and/or careers in veterinary medicine or related fields. Students will develop their skills in anatomy, nutrition, medical terminology, sanitation, clinical exams, and handling animals. Live animal handling may occur. Course content will also include facility maintenance and office function, and safety practices. Students will also expand their knowledge of animal science and the care of animals, including animal structure and function, microbes and disease prevention, parasitology, and genetics and breeding.

### **Veterinary Science II / DE Veterinary Science II**

**Course #:** 8089C/8089D      **Recommended:** Grade 12

**Credit:** 2 Units

**Dual Enrolled Credit:** 6 credits through Blue Ridge Community College

**Prerequisite:** Veterinary Science I/DE Veterinary Science I (DE requires a 2.0 GPA minimum)

**Industry Certification:** Certified Vet Assistant Exam

**SCTC application is not required upon successful completion of prerequisite course**

Students develop more advanced skills and techniques for assisting the veterinarian/technician in the following areas: performing first aid and surgery, applying aseptic techniques, performing technical functions, administering medication, handling death and dying, working with wildlife, and performing office functions. On-the-job clinical instruction coordinated by the instructor may be included in veterinary offices or animal clinics. Supervised Agricultural Experience (SAE) and related student organization activities are encouraged. All students will be expected to take the Certified Vet Assistant exam.

### **Dental Assistant I**

**Course #:** 8328A      **Recommended:** Grade 11

**Credit:** 2 Units

**SCTC Application is required for admission**

Students will be introduced to careers in dentistry, including dental (general and specialists) hygienist, dental assistant, dental laboratory technician, and dental receptionist. Students will learn about and practice the skills utilized in

these professions while attaining all the skills necessary to become a dental assistant. Study will include infection control and OSHA standards, anatomy and physiology, tooth morphology, oral histology, preventive dentistry, applied psychology, effective communication, office administration and management, use of dental software, operative dentistry techniques, and dental materials/laboratory skills.

### **Dental Assistant II**

**Course #:** 8329A

**Recommended:** Grade 12

**Credit:** 2 Units

**Prerequisite:** Dental Assistant I

**Industry Certification:** Certified Dental Assistant and National Entry Level Assistant Radiation Health and Safety Exam

**SCTC application is not required upon successful completion of prerequisite course**

Students will build on the curriculum covered in Dental Assistant I. Units of study include medical emergencies, coronal polishing, dental radiology, nutrition, and advanced laboratory techniques. Students will also have the opportunity to participate in internships in local private dental offices and public health facilities where they participate in all phases of dental care delivery. Students will be eligible to take the Virginia Dental Radiation and Safety Exam certifying them to take dental x-rays in the Commonwealth of Virginia.

### **Medical Assistant I**

**Course #:** 8345

**Recommended:** Grade 11

**Credit:** 2 Units

**Industry Certification:** Certified Medical Administrative Assistant Exam (CMAA)

**SCTC Application is required for admission**

Students will gain foundational knowledge in basic anatomy and physiology, medical ethics, medical asepsis, terminology, medical mathematics, and legal responsibilities. Students will also develop basic skills and techniques to assist the healthcare provider and/or other medical professionals in patient examinations, basic emergency care, simple laboratory tests, and administrative duties. Additionally, students will explore medical assisting career pathways through Health Occupations Student Association (HOSA), potential on-the-job clinical instruction, and/or observation in a healthcare facility.

### **Medical Assistant II**

**Course #:** 8346

**Recommended:** Grade 12

**Credit:** 2 Units

**Prerequisite:** Medical Assistant I

**Industry Certification:** Certified Clinical Medical Assistant Exam (CCMA)

**SCTC application is not required upon successful**



### completion of prerequisite course

Students will apply and implement medical-assisting skills and techniques learned in Medical Assistant I. They will also learn management of health records; cardiopulmonary resuscitation; care and use of equipment; collection and analysis of laboratory specimens; special diagnostic testing related to basic diseases and disorders, treatment, and medication; and job preparedness skills. Successful completion of the program may lead to employment in a healthcare setting. Additionally, students will explore career pathways through Health Occupations Student Organization (HOSA).

### Dual Enrollment Health Care Technician

**Course #:** 8355, 8356, 8368      **Recommended:** Grade 12  
**Credit:** 4 Units (also transferable college credit hours (10) with a grade of 70 or better)

**Prerequisite:** 2.0+ GPA & Germanna entrance requirements

**Industry Certification:** Certified Nursing Assistant and Medication Aide industry certifications

**Note:** Fee required

**SCTC Application is required for admission**

The dual-enrollment health care technician opportunity is a combination of three courses, including HCT 101: Health Care Technician I, HCT 102: Health Care Technician II, and HCT 115: Medication Administration Training. Students have the opportunity to earn 10 dual enrollment credits through Germanna Community College and receive a Career Studies certificate. Health Care Technician teaches basic care skills with an emphasis on physical, social, emotional, and spiritual needs of patients. Covers procedures, communication and interpersonal relations, observation, charting and reporting, care planning, safety and infection control, anatomy and physiology, nutrition and patient feeding, and ethics, death and dying. Prepares multi-skilled health care workers to care for patients of various ages with a special emphasis on geriatric nursing, home health, and long- and short-term care. Students will also have the opportunity to learn and be prepared to safely administer medication in specific settings, or to assist in client self-administration of medications, and will gain an understanding of basic pharmacology (terminology, abbreviations, classifications, drug actions, purpose and effects of medication, drug information resources, and drug labeling requirements). This course is approved by the State Board of Nursing. Upon completion of the Health Care Technician program, students are eligible to sit for the Certified Nursing Assistant and Medication Aide industry certifications.



## Additional Opportunities

### Independent Study

**Course #:** 0115

**Recommended:** Grades 10-12

**Credit:** 1 Unit

**Prerequisites:** Committee Approval

Students in an Independent Study Course (ISC) will pursue a topic of interest that is not offered within the school curriculum. This requires a committee review of the student's written proposal prior to the beginning of the school year. If approved, students will create a minimum of one major product, two oral presentations, and two minor products. A limited number of proposals will be accepted. The course will be counted as an elective and graded on a regular basis. Students will receive a grade for the course that will be included in the GPA. For more information, see your Gifted Coordinator or school counselor for an ISC brochure.

### Mentor Apprenticeship Program

**Course #:** 0029

**Recommended:** Grade 12

**Credit:** 1 Unit

Students in the Mentor Apprenticeship Program will gain independent research skills, attend group seminars, and participate in off-site real world experience within the mentor's career field. Students will be matched with an adult in a professional field or in an area which the learner has interest. The student will maintain a log of activities, complete an individual project, conduct interviews, and critique readings in the field of study. Student will receive a grade for the course that will be included in the GPA. For more information, see your Gifted coordinator.

### JROTC I

**Course #:** 7913

**Recommended:** Grades 9-10

**Credit:** 1 Unit

**Prerequisites:** All interested students are required to complete an application and submit it to their counselor and the appropriate Senior Army Instructor. Total unit endorsement is restricted by the United States Army. Students must be able to participate in the physical training program. Any student wishing to participate in one or more of the JROTC co-curricular teams, Raiders and/or Drill Team, is required to have a physical after May 1st and prior to participation in any team activity.

**Industry Certification:** ASVAB

**SCTC Application is required for admission**

Students in the JROTC I course will learn critical thinking, planning, communication, and organizational skills with the study of the fundamental aspects of American citizenship, physical fitness, and an overview of American history. Students will learn the dangers of substance abuse and the importance of personal goal setting. Additionally,



students will study Army customs, consumer education and budgeting, ceremonial drill, first aid and map reading. Wearing of the supplied Army uniform, as well as meeting minimum personal appearance standards, will be required on a weekly basis.

### **JROTC II**

**Course #: 7916**

**Recommended: Grades 10-11**

**Credit: 1 Unit**

**Prerequisites:** Students must complete a return application. Completion of JROTC I. Students must have the approval of their principal and the Senior Army Instructor to enroll. Students must be able to participate in the physical training program. Any student wishing to participate in one or more of the JROTC co-curricular teams, Raiders and/or Drill Team, is required to have a physical after May 1st and prior to participation in any team activity.

**Industry Certification: ASVAB**

**SCTC Application is required for admission**

Students in the JROTC II course will build upon the skills and knowledge taught in level I. Students will continue their study of citizenship by examining ethical dual behavior and the principles of participatory democracy. They will develop team building skills while developing their skills in drill. Students will learn leadership and management qualities, first aid skills, intermediate map reading skills, American history, and different aspects of technology and communication. Wearing of the supplied Army uniform, as well as meeting minimum personal appearance standards, will be required on a weekly basis.

### **JROTC III**

**Course #: 7918**

**Recommended: Grades 11-12**

**Credit: 1 Unit**

**Prerequisites:** Students must complete a return application. Completion of JROTC II (LET-1) Students must have the approval of their principal and the Senior Army Instructor to enroll. Students must be able to participate in the physical training program. Any student wishing to participate in one or more of the JROTC co-curricular teams, Raiders and/or Drill Team, is required to have a physical after May 1st and prior to participation in any team activity.

**Industry Certification: ASVAB**

**SCTC Application is required for admission**

Students in the JROTC III course will learn advanced leadership and principles of management, advanced life skills, orienteering and history. Wearing of the supplied Army uniform, as well as meeting minimum personal appearance standards, will be required on a weekly basis. The National Endowment for Financial Education Program will also be presented. Select students will be able to lead in the development of Level I students.

### **JROTC IV**

**Course #: 7919**

**Recommended: Grade 12**

**Credit: 1 Unit**

**Prerequisites:** Students must complete a return application, have successfully completed JROTC I, II, and III. Students must be able to participate in the physical training program. Any student wishing to participate in one or more of the JROTC co-curricular teams, Raiders and/or Drill Team, is required to have a physical after May 1st and prior to participation in any team activity.

**Industry Certification: ASVAB**

**SCTC Application is required for admission**

Students in the JROTC IV course will learn advanced leadership principles and application. Students will learn about the organization of the department of defense and its teaching skills. The National Endowment for Financial Education Program will also be presented.

# Program Planning Guide

Diploma Type: ☐ Advanced Studies  
☐ Standard

Pathway: \_\_\_\_\_

School Year: _____	Grade 9
Name of Course Taken	Credits/Verified
Total Number of Credits:	

School Year: _____	Grade 10
Name of Course Taken	Credits/Verified
Total Number of Credits:	

School Year: _____	Grade 11
Name of Course Taken	Credits/Verified
Total Number of Credits:	

School Year: _____	Grade 12
Name of Course Taken	Credits/Verified
Total Number of Credits:	

## Notes