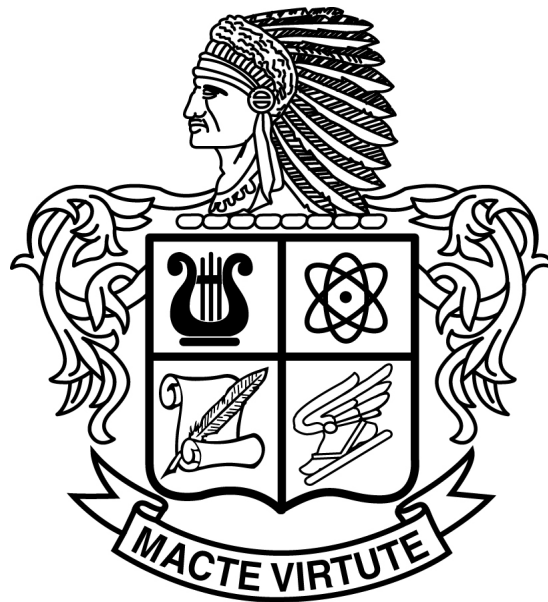


# **GAR-FIELD HIGH SCHOOL**



## **Course Offering Book 2007-2008**

**“School of Champions”**

**GAR-FIELD HIGH SCHOOL  
COURSE OFFERING  
2007-2008**

**Grades 9-12**

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## ***FROM THE GUIDANCE DIRECTOR***

**Dear Students and Parents:**

**The purpose of this course booklet is to let you know about the many opportunities and challenges available to you. These are courses which will be offered at Gar-Field High School during the 2007-2008 school year. Of course, these courses may not be offered if there is not enough interest shown.**

**As you consider your plans for the future, your interests and your abilities should be a part of these decisions. You also may wish to review the graduation requirements for Virginia Public Schools.**

**Choose your courses carefully. Teachers are hired based on your selection. Our Counselors look forward to working with you as you design and continue your educational plans.**

***Jason D. Supon***

**Director of Guidance**

### **Administrative & Counseling Staff**

**Roger Dallek**  
Principal

**Jason Supon**  
Director of Guidance

**Rosemary Bozo - Career Counselor**

**Myca Gray**  
Assistant Principal

**A-Ag, C – D**  
**Ah-As, E – G**

**Malaika Gaskins -Counselor**  
**Katrina Cook – Counselor**

**Regina Nash**  
Assistant Principal

**At-Barq, H - K**  
**Barr-Beri, L – Mo**

**Michelle Trahan- Counselor**  
**Kathy Parish - Counselor**

**Elise Simpson**  
Administrative Assistant

**Mu – Ri**  
**Berj-Braz, Ro – S**

**Harriett Rowe - Counselor**  
**Danielle Johnson-Counselor**

**Barbara Cavalier**  
Assistant Principal

**Bre-Bz, T – Z**

**Dennis Scott - Counselor**

**Rudy Zimmermann**  
Activities Director

**Brian Bassett**  
I.B. Coordinator

## Graduation Requirements - Prince William County Public Schools

CLASS OF:	Entered/Entering 9 <sup>th</sup> Grade for the First Time	DIPLOMA	MATH & SCIENCE REQUIREMENTS	TEST(S) REQUIRED	ADDITIONAL REQUIREMENTS
1999-2001	1997-98	20 Modified (Sp. Ed.)		LPT	ERP
		22 Standard	2 math; 2 science 1 additional math or science	LPT	ERP
		24 Advanced Studies	3 math (two above Alg. I); 3 science	LPT	ERP
2002	1998-99	20 Modified (Sp. Ed.)	3 math 2 science	LPT	ERP
		22 Standard	3 math (two from Alg. I, Geometry or higher); 3 science	LPT	ERP
		24 Advanced Studies	4 math to include Alg. II or higher; 4 science	LPT	ERP
2003	1999-00	20 Modified (Sp. Ed.)	3 math 2 science	LPT	ERP
		22 Standard	* 2 sequential electives	LPT	ERP
		24 Advanced Studies	*	LPT	ERP
2004	2000-01	20 Modified (Sp. Ed.)	3 math 2 science	Literacy/Numeracy (8 <sup>th</sup> grade SOL tests in English & Mathematics)	ERP
		22 Standard	* 2 sequential electives	SOL/EOC (6) <i>(transition period)</i>	ERP
		24 Advanced Studies	*	SOL/EOC (9)	ERP
2005	2001-02	20 Modified (Sp. Ed.)	3 math 2 science	Literacy/Numeracy (8 <sup>th</sup> grade SOL tests in English & Mathematics)	ERP
		22 Standard	* 2 sequential electives	SOL/EOC (6) <i>(transition period)</i>	ERP
		24 Advanced Studies	*	SOL/EOC (9)	ERP
2006	2002-03	20 Modified (Sp. Ed.)	3 math 2 science	Literacy/Numeracy (8 <sup>th</sup> grade SOL tests in English & Mathematics)	ERP
		22 Standard	* 2 sequential electives	SOL/EOC (6) <i>(transition period)</i>	ERP
		24 Advanced Studies	*	SOL/EOC (9)	ERP
2007	2003-04 and Later	20 Modified (Sp. Ed.)	3 math 2 science	Literacy/Numeracy (8 <sup>th</sup> grade SOL tests in English & Mathematics)	ERP
		22 Standard	* 2 sequential electives	SOL/EOC (6)	ERP
2008	2003-04 and Later	24 Advanced Studies	*	SOL/EOC (9)	ERP

ERP – English Research Paper

\*Math and Science requirements as for Ninth Grade Class of 1998-99

## Graduation Requirements - Prince William County Public Schools

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**ERP – English Research Paper  
for Ninth Grade Class of 1998-99**

**\*Math and Science requirements as**

GRADUATION REQUIREMENTS Students classified as freshmen: Fall – 2000, 2001, 2002

	<b>Standard Diploma</b> 22 units required		<b>Advanced Diploma</b> 24 units required	
<b>English</b>	4 units	English 9, 10, 11*, 12 (English 11 requires a passing score on the English Research Paper)	4 units	English 9, 10, 11*, 12 (English 11 requires a passing score on the English Research Paper)
<b>Mathematics</b>	3 units	including two course selections from among Algebra I*, Geometry* or higher	4 units	including three different course selections from Algebra I*, Geometry*, Algebra II* or higher
<b>Science</b>	3 units	must include two different disciplines from Earth Science*, Biology*, Chemistry* or Physics	4 units	must include three different disciplines from among Earth Science*, Biology*, Chemistry* or Physics
<b>Social Studies</b>	3 units	World History* or World Geography*, US & Virginia History*, and US & Virginia Government	4 units	World History*, World Geography*, US & Virginia History*, and US & Virginia Government
<b>Health/Physical Education</b>	2 units	Health/PE I and Health/PE II	2 units	Health/PE I and Health/PE II
<b>Foreign Language</b>	n/a	n/a	3 - 4 units	3 units of one language -or- 2 years each of two languages
<b>Fine or Practical Arts</b>	1 unit		1 unit	
<b>Electives</b>	6 units	must include at least 2 sequential electives	1 - 2 units	depending on the foreign language sequence
<b>Verified Units</b>	Verified Units are earned by passing the course and the Standards of Learning (SOL) Test. <b>Required Verified Units: 6</b> 2 English 11 (Writing & Read/Lit) 4 Student Choice		Verified Units are earned by passing the course and the Standards of Learning (SOL) Test. <b>Required Verified Units: 9</b> 2 English 11 (Writing & Read/Lit) 2 Mathematics 2 Science 2 Social Studies 1 Student Choice	

\*indicates classes with SOL Tests

GRADUATION REQUIREMENTS Students classified as freshmen: Fall – 2003 and after

	<b>Standard Diploma</b> 22 units required <i>(Course requirements same as above)</i>		<b>Advanced Diploma</b> 24 units required <i>(Course requirements same as above)</i>	
<b>Verified Units</b>	Verified Units are earned by passing the course and the Standards of Learning (SOL) Test. <b>Required Verified Units: 6</b> 2 English 11 (Writing & Read/Lit) 1 Mathematics 1 Science 1 Social Studies 1 Student Choice		Verified Units are earned by passing the course and the Standards of Learning (SOL) Test. <b>Required Verified Units: 9</b> 2 English 11 (Writing & Read/Lit) 2 Mathematics 2 Science 2 Social Studies 1 Student Choice	

**MODIFIED STANDARD DIPLOMA**

20 units required

Students classified as freshmen: Fall 2000, 2001, 2002, 2003, 2004

Courses Needed:

	<b>English</b>	<b>4 units</b>
<b>Mathematics</b>	<b>3 units:</b> to include content from among applications of Algebra, Geometry, Personal Finance, and Statistics	
<b>Science</b>	<b>2 units:</b> to include content from at least two of the following: applications of Earth Science, Biology, Chemistry, or Physics	
History & Social Science	<b>2 units: must include US &amp; VA History and US &amp; VA Government</b>	
<b>Health/Physical Education</b>	<b>2 units:</b> H/PE I and H/PE II	
<b>Fine or Practical Arts</b>	<b>1 unit</b>	
	<b>Electives</b>	<b>6 units:</b> to include at least 2 sequential electives

Total units = 20 ..... Must meet the Individual Education Program for special education students only, plus a passing grade on a literacy and numeracy test.

Eligibility for this diploma shall be determined by the student’s Individual Education Program after the eighth grade year. The Student must have passed the 8<sup>th</sup> grade Standards of Learning (SOL) tests in both English and Mathematics to meet the literacy and numeracy requirements for this diploma.

**GRADE PLACEMENT**

- I. **Ninth Grade:** Successful completion of grade eight
- II. **Tenth Grade:** Six units of credit, three must be required courses
- III. **Eleventh Grade:** Eleven units of credit, six must be required courses
- IV. **Twelfth Grade:** Sixteen units of credit, nine must be required courses.

(A student must be in a program of studies which will enable the student to acquire the minimum number of credits required for graduation by the end of August of the senior year or be in a position to acquire the required graduation credits by the end of the school year through day, night, or summer classes).

Please note that ALL graduation requirements must be completed before the student may participate in the June graduation exercises.

# ART

*All art courses will count toward meeting the one-credit fine arts requirement.*

## **ART I – BASIC FOUNDATIONS (9120)**

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1 (36 weeks [AB Schedule])**

First-year art students are enrolled in a Basic Foundations course. Art foundations will include two-dimension, three- dimension, and visual literacy experiences with a focus on the elements and principles of design.

## **ART II (9130)**

**Focus on the elements and principles of design**

**Prerequisite: A grade of “C” or better in Art I**

## **ART III (9140)**

**Focus on art periods, styles and cultures**

**Prerequisite: A grade of “B” or better in Art II**

## **ART IV (9145)**

**Focus on art periods, styles, cultures and artists**

**Prerequisite: A grade of “B” or better in Art III**

These courses are sequentially designed to extend and further develop experiences in the Basic Foundations course. Artistic expression is explored through discipline-based art education (art production, art history, art aesthetics, and art criticism).

## **ART PORTFOLIO PREPARATION (9148)**

**Grades: 10-12**

**Prerequisite: Successful completion of Art I and II with a “B” or better average or Art I with an “A” average and/or approval of the department chairperson**

**Credit: 1**

The Art Portfolio Preparation studio is intended for highly motivated students committed to serious study in art. The studio will focus on the student’s individual artistic talents. The portfolio, compiled by the student, will demonstrate a variety of experiences in the formal, technical, and expressive means available to an artist.

## **IB VISUAL ARTS I (HL) (914051)**

**Grades: 11-12**

**Prerequisite: Successful completion of two years of high school art courses with a grade of “B” or better in each and/or teacher recommendation**

**Credit: 1**

IB Visual Arts is the first year of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The course is intended for highly motivated students committed to serious study in art. The aim of this course is to provide opportunities to develop the aesthetic, imaginative, and creative faculties as well as to train visual, perceptual, and critical awareness of arts or various cultures. The portfolio, compiled by the student, will demonstrate intensive concentration in studio work and/or research.

## **IB VISUAL ARTS II (HL) (914551)**

**Grade: 12**

**Prerequisite: Successful completion of IB Visual Arts I**

**Credit: 1**

IB Visual Arts II is the second year of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The course is intended for highly motivated students committed to serious study in art. Students will combine persistent research with regular studio work, developing appreciation, creativity, technical skills, and a feeling for the fundamentals of design. Students are required to take part in the IB assessment process.

## **IB VISUAL ARTS (SL) (913050)**

**Grade 11 or 12**

**Prerequisite: Completion of one year of high school art with a “C” or better average and/or teacher approval**

**Credit: 1**

IB Visual Arts (Standard Level) is a one-year program resulting in an International Baccalaureate Certificate or Diploma. The course is intended for highly motivated students committed to serious study in art. Students will combine persistent research with regular studio work, training, visual, perceptual, and critical awareness of the arts of various cultures, as well as developing creativity, technical skills, and a feeling for the fundamentals of design. Students may choose either SLA (a concentration in studio work) or SLB (a concentration in research). Students are required to take part in an IB assessment process.

# *BUSINESS, INFORMATION TECHNOLOGY, AND MARKETING*

*All business and marketing courses will count toward meeting the one-credit practical arts requirement for graduation.*

## **PRINCIPLES OF BUSINESS AND MARKETING (6115)**

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1**

Students explore the roles of business and marketing in the free enterprise system and the global economy. They study how the American economy operates and prepares to make decisions as consumers, wage earners, and citizens. Students will develop fundamental social, economic, decision making job search competencies necessary for initial employment.

## **WORD PROCESSING (6152)**

**Grades: 9-12 (Previously called Keyboarding Applications)**

**Prerequisite: None**

**Credit: 1**

Students develop or refine touch skills for entering alphabetic, numeric, and symbol information on a computer keyboard. Students apply keyboarding skills to produce a variety of personal and business documents including MLA Reports. Additional activities such as proofreading, editing, and grammar will be emphasized. Students develop intermediate to advanced level word processing skills using a variety of software functions including graphics and desktop publishing. Students gain competence integrating other applications such as database and spreadsheet into word processing activities. Classroom experiences also provide for skill development in communication. COE may be taken concurrently.

## **OFFICE SPECIALIST I (6740)**

**OFFICE SPECIALIST II (6741)**

**OFFICE SPECIALIST III (6742)**

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1**

Students progress in this sequence until prepared to transfer to other business courses. Students develop skills in areas including keyboarding, word processing, office procedures, and records management. An individualized plan of study is used in levels II and III.

## **ACCOUNTING (6320) (Tech Prep)**

**Grades: 10-12**

**Prerequisite: None**

**Qualifies for Cooperative Office Education (COE)**

**Credit: 1**

Accounting emphasizes basic accounting principles as they relate to both manual and computerized financial systems. Instruction is on an integrated basis using microcomputers (when available) and electronic calculators as the relationships and processes of manual and computerized accounting are presented. Accounting is a prerequisite for Advanced Accounting.

## **ADVANCED ACCOUNTING (6321) (Tech Prep)**

**Grades: 11-12**

**Prerequisite: Accounting**

**Qualifies for Cooperative Office Education (COE)**

**Credit: 1**

Advanced Accounting is designed to use microcomputers to automate, analyze, and interpret business applications including payroll, inventory, accounts payable, and accounts receivable. Management of financial records through various business activities, corporate accounting, and general ledger are also included. COE may be taken concurrently.

## **PROGRAMMING (6640)**

**Grades: 10-12**

**Qualifies for Cooperative Office Education (COE)**

**Prerequisite: None**

**Processing I**

**Credit: 1**

Programming introduces students to programming procedures and careers. Emphasis is placed on modular and structured programming. The Visual Basic programming language is taught as well as HTML and Java script. A variety of business applications software will be introduced. COE may be taken concurrently.

## **ADVANCED PROGRAMMING (6641)**

**Grades: 11-12**

**Prerequisite: Programming I**

**Credit: 1**

Advanced Programming is an occupational preparation course. Emphasis is placed on electronic data processing and writing programs for business applications. Students are introduced to one or more high-level languages such as JAVA and Advanced Visual BASIC. Hands-on operation of computer equipment is an integral part of the course. COE may be taken concurrently.

**COMPUTER INFORMATION SYSTEMS (CIS) (6612)**  
**TECH PREP**  
**Grades: 10-12**  
**Prerequisite: Word Processing**  
**Qualifies for Cooperative Office Education (COE)**  
**Credit: 1**

Computer Information Systems provides students with opportunities to develop professional level skills in a project-oriented approach through the use of Microsoft Office Premium software. Instruction will include units in operating systems, word processing, spreadsheets and charting, databases, multimedia presentation and Internet research. Through integration students will be encouraged to analyze, synthesize, and evaluate authentic situations and apply appropriate technology to solve problems efficiently and effectively. When completed, students will be eligible to take the Microsoft Office User Specialist (MOS)/Core Exams.

**ADVANCED COMPUTER INFORMATION SYSTEMS (CIS) (6613)**  
**TECH PREP**  
**Grades: 10-12**  
**Prerequisite: Computer Information Systems**  
**Qualifies for Cooperative Office Education (COE)**  
**Credit: 1**

Students apply problem solving skills to real-life situations through advanced integrated software applications, including multimedia presentations, printed and electronic desktop publications, and web site development. When completed, students will be eligible to take the Microsoft Office User Specialist (MOS) Expert exams. Students will work individually and in groups to explore advanced computer maintenance activities, telecommunications, programming and networking.

**DESIGN, MULTIMEDIA & WEB TECHNOLOGIES (663001)**  
**Grades: 10-12**  
**Prerequisite: None**  
**Qualifies for Cooperative Office Education (COE)**  
**Credit: 1**

This product-oriented course introduces the student to multimedia presentations, desktop publications, and web page creation. Hands-on activities are used as students develop skills, master techniques, and prepare products for a client-based environment. Students learn to create professional slideshow presentations using animation, sound, and videos. Students also create brochures, flyers, business advertisements, and many other useful documents using QuarkXpress and Photoshop. The course also introduces students to document construction for publishing on the World Wide Web using authoring software. Units of instruction include design and layout, typeface selection, electronic scanners and scanned images, image editing, digital cameras and images, video capturing. Internet research and copyright laws are emphasized. Students may take this course in conjunction with Cooperative Office Education (COE)

**ADVANCED DESIGN, MULTIMEDIA & WEB TECHNOLOGIES (663101)**  
**Grades: 11-12**  
**Prerequisite: Desktop/Multimedia Presentations**  
**Credit: 1**

This course provides students the opportunity to study, develop and design sophisticated web pages in a client-based business environment. Basics of HTML, Dreamweaver, Flash and Photoshop are covered to enhance a student's web page. Students are also provided instruction in preparing and editing Web page images, applying advanced design techniques and features, creating vector animations, and managing website directory structures. Skill development will be achieved through hand-on activities that help students to design web pages for various audiences and uses. Students may take this course in conjunction with Cooperative Office Education (COE).

**BUSINESS MANAGEMENT (6136)**  
**Grades: 10-12**  
**Prerequisite: None**  
**Credit: 1/2**

Students are provided a general overview of American business and the social and economic environments of business in this country. The course also provides the student with basic principles of organization and management with emphasis on business ownership.

**BUSINESS LAW (6132)**  
**Grades: 10-12**  
**Prerequisite: None**  
**Credit: 1/2**

Business Law is a basic business course that emphasizes the legal rights and responsibilities of citizens in the American society. Instructional content includes the legal system laws of contracts, owning and transferring property, and laws governing employer and employee relations.

**ENTREPRENEURSHIP (9094)**  
**Grade: 10**  
**Prerequisite: None**  
**Credit: 1**

Students will research global economic trends; apply basic concepts of management, including researching and writing business plans; study essential financial activities such as cash flow and income statements; and study human resources management to include the development of employability skills. Additionally, students will have opportunities for "externships" with local businesses.

**COOPERATIVE OFFICE EDUCATION (6799)****Grades: 11-12****Prerequisite: Enrollment in one of the approved business education programs:** Accounting, CIS, MIS, Office Administration, Word Processing 2, Advanced Accounting, Programming, Notetaking, Legal and Medical Office Administration, and Desktop/Multimedia**Credit: 1**

COE is a one- or two-year course offered to eleventh and twelfth grade students who are enrolled in one of the approved business education programs. It is the supervised, on-the-job instructional phase of an occupational preparation program in business education. After students attend the required courses and the appropriate business education course, they continue related training in an office for the remainder of the school day. The teacher-coordinator develops with the on-the-job sponsor and the student an individualized training plan identifying learning experiences related to the student's occupational objective. COE may be taken more than once for credit.

**IB BUSINESS AND MANAGEMENT (613550)****Grades: 11-12****Prerequisite: Successful completion of Entrepreneurship****Credit: 1**

The program in IB Business and Management is designed to provide a broad-ranging introduction to the principles and some of the practices of organizations currently pursuing the activities outlined below, and set in a scene of international markets, exchange and production. Organization Studies incorporates a wide range of activities designed to manage efficiently the production, distribution and exchange of goods and services, at the minimum cost and within the framework of a personnel-oriented employment policy. This course may be used as an elective within the IB Diploma Program.

**MARKETING (8120) 2 credits (8121) 1 credit****Grades: 11-12****Prerequisite: None****Credits: 2 (1 credit without work experience)**

Students learn the functions involved in the marketing of goods and services and achieve the competencies necessary for successful marketing employment. The development of social and economic competencies in conjunction with marketing competencies in the areas of personal selling, advertising, visual merchandising, physical distribution, purchasing, market planning, product/service technology, and marketing mathematics enable students to become well-rounded marketing employees who contribute to the success of marketing businesses. During the school year, students who elect the two-credit option will combine classroom instruction with a minimum of 540 hours of continuous, supervised on-the-job training in a local marketing business. All activities are planned, supervised, and documented by the marketing education teacher-coordinator.

**ADVANCED MARKETING (8130) 2 CREDITS (8131) 1 CREDIT****Grade: 12****Prerequisite: Marketing****Credits: 2**

In Advanced Marketing, students gain: (a) in-depth knowledge of the marketing functions and the supervisory and management responsibilities for those functions; and (b) competencies important for successful supervisory management employment and advancement to other management positions. Students develop economic and advanced marketing competencies in professional selling, marketing planning, marketing mathematics, purchasing, physical distribution, advertising, and visual merchandising, as well as social competencies related to the supervision of marketing employees. Students who elect the two-credit option will combine classroom instruction with a minimum of 540 hours of continuous, supervised on-the-job training in local marketing business. All activities are planned, supervised, and documented by the marketing education teacher-conference.

**FASHION MARKETING (8140) 2 credits (8141) 1 credit****Grades: 11-12****Prerequisite: None****Credits: 2 (1 credit without work experience)**

In this specialized course, students gain basic knowledge of the apparel and accessories industry and competencies necessary for successful employment in apparel businesses. In this course, students develop: (a) general marketing competencies necessary for successful employment in fashion merchandising; (b) general marketing competencies applied to the apparel and accessories industry; and (c) specialized competencies unique to fashion marketing. Social and economic competencies are included as well as the areas of personal selling, sales promotion, purchasing, physical distribution, market planning, product service technology, and marketing mathematics. Students develop competencies unique to employment in the apparel and accessories field. Classroom instruction will be reinforced through the use of outside lecturers, case studies and field trips. Students who elect the two-credit option will combine classroom instruction with a minimum of 540 hours of on-the-job training in local apparel and accessories businesses, all of which are planned, supervised and documented by the marketing education coordinator.

**ADVANCED FASHION MARKETING (8145) 2 credits  
(8146) 1 credit  
Grade: 12  
Prerequisite: Fashion Marketing  
Credits: 2 (1 credit without work experience)**

Students with a career interest in apparel and accessories marketing gain in-depth knowledge of the apparel and accessories industry and competencies important for supervisory-management employment in apparel business. They develop advanced competencies unique to fashion marketing and advanced general marketing competencies applied to the apparel and accessories industry. These include professional selling, sales promotion, buying, merchandising, marketing research, product/service technology, marketing mathematics, and supervision. Students develop competencies unique to employment in the apparel and accessories field. Classroom instruction will be reinforced through the use of outside lecturers, case studies and field trips. Students who elect the two-credit option will combine classroom instruction with a minimum of 540 hours of on-the-job training in local apparel and accessories businesses, all of which are planned, supervised and documented by the marketing education coordinator.

**SPORTS, ENTERTAINMENT, AND RECREATION  
MARKETING (8175) 2 credits (8176) 1 credit  
Grades: 11-12  
Prerequisite: None  
Credits: 1 or 2**

This course is for students with an interest in the sports, recreation and entertainment industry. Instruction will include an orientation to the sports and entertainment industry, market analysis, decision-making, event marketing, event execution, the production of a culminating event, and analysis of the event. Classroom instruction will be reinforced through the use of outside lecturers, case studies and field trips. Students who elect the two-credit option will combine classroom instruction with a minimum of 540 hours of on-the-job training in local businesses, all of which are planned, supervised and documented by the marketing education coordinator.

**ADVANCED SPORTS, ENTERTAINMENT, AND  
RECREATION MARKETING (8177) 2 credits  
(8178) 1 credit  
Grades: 12  
Prerequisite: Sports, Entertainment, and Recreation  
Marketing I  
Credits: 1 or 2**

Students will study the application of marketing concepts to the sports, entertainment and recreation industries. Topics will include: SER Marketing in our economy; the SER industries; Marketing products and services; the global market; market research; marketing plans; legal issues; and careers in the sports, entertainment industries. Classroom instruction will be reinforced through the use of outside lecturers, case studies and field trips. Students who elect the two-credit option will combine classroom instruction with a minimum of 540 hours of on-the-job training in local businesses, all of which are planned, supervised and documented by the marketing education coordinator.

**HOTEL/MOTEL MARKETING (811620)  
Grades: 11-12 (36 weeks)  
Prerequisite:  
Credits:**

In this specialized course, students with a career interest in the field of hospitality and recreation develop skills in the areas of hotel front-office procedures, human relations, purchasing, tourism, travel, and sales promotion. In addition, students obtain a thorough understanding of the hotel-motel industry and the career options available. Academic skills (mathematics, science, English, and history/social science) related to the content are part of this course. Computer/technology applications supporting this course are studied.

# *Career and Technical Education*

## **TECHNICAL DRAWING (8435)**

**Grades: 10-12**

**Prerequisite: None**

**Credit: 1**

Technical Drawing introduces students to the graphic language of industry and technology through the use of computer-aided design (CAD). This course provides a foundation for those who wish to pursue careers in engineering, architecture, drafting design or other technical fields that require the skills necessary to prepare or interpret technical drawings. Topics presented include CAD fundamentals and drafting standards, creating and modifying 2D geometry, creating and editing text, drawing setup procedures, using blocks and symbol libraries, multi-view drawings, dimensioning, sections, auxiliary views, pictorial drawings, and 3D drawings and modeling.

## **ARCHITECTURAL DRAWING/DESIGN/CAD (8437)**

**Grades: 10-12**

**Prerequisite: Technical Drawing**

**Credit: 1**

Architectural Drawing/Design/CAD is an advanced drawing and design course which provides students the opportunity to learn about the principles of architecture and increase understanding of working drawings and construction techniques learned in the prerequisite course. Experiences include residential and community planning. Students use computer-aided drawing and design (CAD) equipment and established standards or codes. They prepare models to present and market architectural designs. The course provides information helpful for the homeowner/homebuilder and is especially beneficial to the future architect or engineer.

## **ENGINEERING DRAWING/DESIGN/CAD (8436)**

**Grades: 10-12**

**Prerequisite: Technical Drawing**

**Credit: 1**

Engineering Drawing/Design/CAD is an advanced drawing and design course which enables students to use a graphic language for product design, technical illustration, assembly, patent, and aeronautical drawings. It increases their understanding of drawing techniques learned in the prerequisite course. Students use computers, calculators, and descriptive geometry and adhere to established standards to solve design problems. Throughout the course they hold seminars, meet engineers, and tour design offices in order to learn about the benefits of the course on their future study and career.

## **CONSTRUCTION TECHNOLOGY (8431)**

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1**

Construction Technology provides students with introductory experiences relating to the construction industry. Laboratory activities will be in areas such as masonry, electrical wiring, drywall, frame construction, and roofing.

## **ELECTRONICS TECHNOLOGY (8416)**

**Grades: 10-12**

**Prerequisite: None**

**Credit: 1**

Electronics Technology is an introductory course that uses hands-on activities and lab experiments to learn about electronic parts, how these parts work together, and tool and equipment usage. The student will breadboard circuits and make necessary measurements and calculations to complete laboratory experiments.

## **POWER AND TRANSPORTATION TECHNOLOGY (8445)**

**Grades: 10-12**

**Prerequisite: None**

**Credit: 1**

Power and Transportation Technology is a course that offers a student the opportunity to experience various methods of power transmission and transportation modes. Problem-solving activities and the development of critical thinking skills will be incorporated while working in the areas of small gas engines, hydraulics, pneumatics, electric motors, and various forms of transportation.

## **FOUNDATIONS OF TECHNOLOGY (8403)**

**Grades: 9-12**

**Prerequisite: Exploring Technology Education – MS**

**Credit: 1**

This is a beginning high school course in the Engineering and Industrial Technologies Career Cluster. Students will acquire a foundation in technological material, energy, and information and apply processes associated with the technological thinker. Challenged by laboratory activities, students create new ideas and innovations, build systems, and analyze technological products to learn further how and why technology works. Students work in groups to build and control systems with engineering in the development of a technology.

**INTEGRATED ENGINEERING SYSTEMS  
TECHNOLOGY I (IEST) (8425)**

**Grade: 10-11**

**Prerequisite: Foundations of Technology recommended**

**Credits: 1**

During the first year of the program, students will be introduced to various career fields in manufacturing and engineering. Emphasis will be placed on the major systems in automated manufacturing, including: design, electrical, mechanical, manufacturing processes, material handling, and quality control. Students will participate in teams in a modular classroom setting, to produce manufacturing projects that demonstrate critical elements of manufacturing and develop critical thinking skills.

**INTEGRATED ENGINEERING SYSTEMS  
TECHNOLOGY II (IEST) (8427)**

**Grade: 11-12**

**Prerequisite: IEST I**

**Credit: 1**

The course will help students to develop an in-depth understanding of automation and its applications in manufacturing. Activities in this program will center around flexible manufacturing processes and Computer Integrated Manufacturing. Students work in teams to solve complex interdisciplinary problems that stem from the major systems in automated manufacturing.

**AUTOMOTIVE SERVICING (8710)**

**Grades: 11-12**

**Prerequisite: None**

**Credits: 2**

This is a two-credit, two-period class. Students learn basic shop safety, make minor repairs, tune engines, and practice routine maintenance procedures while preparing for entry-level careers in the automotive servicing industry. The study of electrical systems and components of the cooling system are included.

**INTRODUCTION TO GRAPHIC COMMUNICATIONS  
(8458)**

**Grades: 10-12**

**Prerequisite: None**

**Credit: 1**

The purpose of this course is for the student, through critical thinking and problem-solving techniques to take ideas generated in the mind and convert them to a graphic sheet. Activities include students using computers, cameras, videos, film, reproduction equipment, and career exposure.

**ADVERTISEMENT DESIGN (847245)**

**Grades: 10-12**

**Prerequisite: Introduction to Graphic Communications**

**Credit: 1**

Students learn to design and execute layouts and illustrations for advertising displays and instructional manuals. Instruction in all phases of offset printing, layout composition, presswork and binding, lithography, photoengraving, and other graphic arts related to the printing industry will be covered.

**COMPUTER SYSTEMS TECHNOLOGY I (8622)**

**Grades: 10-12 (11<sup>th</sup> & 12<sup>th</sup> given preferential placement)**

**Prerequisite: Foundations of Technology recommended**

**Credits: 2**

**Students prepare for A+ Certification Exams**

This course is for students interested in a career in maintaining and servicing computers and related equipment as well as peripheral devices. Students learn to construct, troubleshoot, service, and repair computer systems, related components, and software, and install and maintain local area networks. Test instruments and diagnostic hardware and software are utilized. Students successfully completing this course will be eligible to take the A+ certification exam.

**COMPUTER SYSTEMS TECHNOLOGY II (8623)**

**Grades: 11-12**

**Prerequisite: Computer Systems Technology I**

**Credits: 2**

**Students prepare for A+ Certification Exams**

This course is for students who have completed the Computer Systems Technology I and are interested in further training in advanced theory in computer repair and networking techniques. Additional topics to be studied are "Novell" network and "Cisco" routers. Laboratory processes and procedures will be utilized in performing troubleshooting and repair techniques. The student may be placed with local businesses for work experience.

# *ENGLISH*

## **ENGLISH 9 (1130)**

**Grade 9**

**Prerequisite: Successful completion of Grade 8**

**Credit: 1**

English 9 is a required course, which includes analysis of the genres of literature (short story, novel, drama, poetry, autobiography, biography, mythology, epic), analysis of the elements of non-fiction, vocabulary development, application of the information management process, the study of grammar, and oral communication skills. Grammar instruction includes study of sentence formation, usage, and mechanics. Instruction in narrative, literary, expository, and technical compositions reinforces skill studies in the grammar and literature units. Development of reading strategies in increasingly complex texts, writing, and oral communication are part of each unit. The course includes opportunities to develop research skills through collecting, evaluating, and organizing information.

## **ENGLISH 10 (1140)**

**Grade: 10**

**Prerequisite: Successful completion of English 9**

**Credit: 1**

English 10 is a required course which includes the analysis of the genres of literature from a variety of eras and cultures (novel, poetry, essay, editorials, and science fiction), analysis of the elements of non-fiction, vocabulary development, application of the information management process, the study of grammar, and oral communication skills. Grammar instruction includes the study of sentence formation, usage, and mechanics. Instruction in narrative, analytical, expository, technical, and persuasive compositions reinforces skills studies in the grammar and literature units. Development of reading strategies in increasingly complex texts, writing, and oral communication are part of each unit. The course includes the opportunity to develop research skills through completion of a documented paper.

## **ENGLISH 11 (1150)**

**Grade: 11**

**Prerequisite: Successful completion of English 10**

**Credit: 1**

English 11 is a required course, which includes the critical analysis and evaluation of relationships among American literature, history, and culture. Analysis of literary themes, movements and genre, vocabulary development, application of the information management process, the study of grammar, and oral communication skills are incorporated into this course. Instruction in narrative, analytical, expository, technical, and persuasive compositions reinforces skills studied in the grammar and literature units. The development of an independent reading program is required. The course includes the opportunity to develop research skills through the completion of a documented paper addressing a question, problem or issue. **Successful completion of the eleventh grade research paper is a requirement for successful completion of this course.**

## **ENGLISH 12 (1160)**

**Grade: 12**

**Prerequisite: Successful completion of English 11; students may enroll if they have successfully completed the English 11 course work but have not passed the research paper**

**Credit: 1**

English 12 is a required course that includes the critical analysis and evaluation of relationships among British literature, history and other cultures. Analysis of literary themes, movements and genre, vocabulary development, application of the information management process, the study of grammar, and oral communication skills are incorporated into this course. Writing narrative and analytical, expository, technical, and persuasive compositions reinforces skills studied in the grammar and literature units. The development of an independent reading program is required. The course includes the opportunity to practice independent research skills through the completion of documented papers.

## **IB MYP ENGLISH 9 (113051)**

**Grade: 9**

**Recommended prerequisites: Successful completion of Grade 8, must be enrolled in the IB program**

**Credit: 1**

IB MYP English 9 is an advanced course of study for students with above-average abilities in reading, writing, listening, speaking, and critical analysis skills. During the year, students will acquire public speaking skills by making oral presentations of creative assignments and of group and individual research. Students will also study grammar and vocabulary as well as analyze literature. As writers, students will engage in thesis development and offer proofs in all basic expository modes.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***

***THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.***

## **IB MYP ENGLISH 10 (114051)**

**Grade: 10**

**Prerequisites: Successful completion of Pre-IB English 9**

**Credit: 1**

IB MYP English 10 is designed to prepare students planning to enroll in IB English courses in Grades 11 and 12. Students in this class will meet all objectives for English 10 through an accelerated program for learners whose intellectual maturity permits challenging in-depth readings as well as teaching methods centered on abstract concepts. Students will be expected to produce frequent formal writings that will be evaluated for evidence of close analysis, elaboration of detail, and fluid articulation of ideas.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## **IB ENGLISH I (115051)**

**Grade: 11**

**Recommended prerequisite: Successful completion of**

**Pre-IB English 10**

**Credit: 1**

IB English I is a part one of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The students in this class will meet all of the objectives for English 11. The course develops an appreciation of literature and a knowledge of the culture of the student's own society and that of other societies. Literature will include a detailed study of at least four works of American literature and four works of world literature. Students will produce two essays that will be externally assessed by the IBO.

## **IB ENGLISH II (116051)**

**Grade: 12**

**Prerequisite: Successful completion of IB English I**

**Credit: 1**

IB English II is part two of a two-year program resulting in an International Baccalaureate Certificate or Diploma earned through internally assessed oral exams and externally assessed essays and exams. The course promotes an appreciation of both the wealth and subtleties of language and seeks to facilitate the clear expression of ideas and argument. A detailed study of four individual works and an integrated study of at least four works in context comprise the literature of the course.

## **IB THEORY OF KNOWLEDGE (TOK) (151550)**

**Grade: 12**

**Prerequisite: IB diploma candidacy or at least four IB classes taken concurrently**

**Credit: 1**

IB Theory of Knowledge is a course required for IB Diploma candidates. It is designed to foster in students a habit of mind that reflects on human ways and limits of knowing as well as on the human ability to communicate these ways of knowing. Students will explore fundamental questions of epistemology by reflecting 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 include language, history, logic, science, mathematics, ethics, and aesthetics.

## **AN INTRODUCTION TO SPEECH COMMUNICATION AND THEATRE (130020)**

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1**

Students will be exposed to the dynamics of speech and the categories of speech (forensics) competition. This course is also designed to provide students with a survey of the theatre arts, allowing students opportunities to participate in the creative processes of oral interpretation, performance and production. This course provides the theatrical and speech opportunities that enable students to determine personal areas of interest.

## **THEATRE PRODUCTION (139561)**

**Grades: 10-12**

**Prerequisite: Exploration of Performance in Theatre**

**Credit: 1**

The focus of this course is on the design, scenery, lighting, makeup, sound, costumes, and public relations necessary to ensure successful theater productions.

## **AN EXPLORATION OF PERFORMANCE IN THEATRE (141062)**

**Grades: 10-12**

**Prerequisite: Introduction to Speech Communication and Theatre with teacher recommendation**

**Credit: 1**

An Exploration of Performance in Theatre is a challenging elective course for tenth through twelfth grade students who have a serious interest in further developing their acting skills. This course will provide students with advanced opportunities for reinforcement, refinement and expansion of the acting skill learned in An Introduction to Speech Communication and Theatre.

**CREATIVE WRITING I (1171)****Grades: 11-12****Prerequisite: Successful mastery of Grade 9 and Grade 10 Language Arts objectives. Writing sample prose not poetry must be submitted.****Credit: 1**

Creative Writing I is an elective course for eleventh and twelfth grade students who enjoy writing. Students will write with a variety of subjects, genre, techniques, purposes, and audiences. Additionally, students will produce polished writing in fiction, non-fiction, and poetry. The students will study contemporary authors and the composing processes of professional writers. Students will create a portfolio of their writing and submit a work for publication.

**CREATIVE WRITING II (1177)****Grades: 11-12****Prerequisite: Successful completion of Creative Writing I****Credit: 1**

Creative Writing II provides students with advanced opportunities for reinforcement, refinement, and expansion of skills. The course will include in-depth practice in writing and evaluations, publication of individual works, development of a working portfolio and the production of the school literacy magazine.

**JOURNALISM I (1200)****Grade: 10-12****Prerequisite: Successful completion of previous English courses and teacher recommendation. Writing sample and application is required.****Credit: 1****Application Required**

Journalism I provides students with basic skills in journalism and practical application of those skills. Students write news, feature, sports and editorial articles. Students study news research techniques, legal rights and responsibility, page design, photography, desktop publishing and advertising. Students produce articles for publication.

**JOURNALISM II (1210)****Grades: 11-12****Prerequisite: Successful completion of Journalism I and journalism teacher recommendation****Credit: 1**

Journalism II provides students with the practical experience of producing a newspaper. Working cooperatively, students apply skills and techniques learned in Journalism I.

**JOURNALISM III (1211)****Grade: 12****Prerequisite: Journalism II****Credit: 1**

Journalism III provides students with advanced opportunities for learning the role of editorial leadership, developing a personal sense of professionalism, understanding the role of the newspaper in our society, and developing more fully as productive members of the newspaper staff.

**PHOTO JOURNALISM/YEARBOOK (1215)****Grades: 10-12****Prerequisite: Tenth grade or higher; yearbook staff assignment.****Credit: 1****Application Required**

Students learn various aspects of publication while assisting in the production of the high school yearbook. Students will participate in each step of production from planning the ladder diagram to distribution of the completed publication. This course may be taken more than once for credit.

# Family and Consumer Science

All Family and Consumer Science courses will count toward meeting the one-credit practical arts requirement for graduation.

## **DISCOVERING FAMILY & CONSUMER SCIENCE (8219)**

**Grades: 9-10**

**Prerequisite: None**

**Credit: 1**

Students enrolled in Discovering Work and Family Sciences focus on managing resources to achieve individual goals; making informed consumer choices; creating and maintaining a living environment; making decision related to nutrition, clothing, and housing. Teachers highlight the basic skills of math, science, and communications when appropriate in the content.

## **EARLY CHILDHOOD EDUCATION I (8285)**

**Grades: 11**

**Prerequisite: Application and Interview Required**

**Credits: 2**

Early Childhood Education I is designed to assist students in developing skills and understanding needs in working with small children. Students will interact, prepare lesson plans and observe children in an educational environment. Early Childhood Education I competencies focus on the principles of child growth and development; development of self-concepts and building of self-esteem; learning experiences for children; principles of guiding children; healthy and safe environments; career development; and careers related to child care. Teachers highlight basic skills of math, science, and communication when appropriate in the content.

## **EARLY CHILDHOOD EDUCATION II (8286)**

**Grades: 12**

**Prerequisite: Early Childhood Education I**

**Credits: 2**

This course emphasized occupational skills for working in child care centers or related occupations such as child care attendant, kindergarten aide, foster parent, child care assistant, pre-school and early childhood education settings. Study includes child care standards in Virginia, human relations skills, special needs students, gerontology and designing a child care facility and business plan. When cooperative (on-the-job) education is used, a minimum of 540 hours, under the supervision of the instructor is required. Training agreements are required for both cooperative and simulated experiences. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

## **CHILD LIFE AND LITERATURE (8238)**

**Grades: 10-12**

**Suggested Prerequisite: A "C" average in English**

**Prerequisite: None**

**Credit: 1**

Child Life and Literature is designed for students who wish to pursue careers dealing with children (teaching, parenting, pediatrics, children's librarian, etc.) or students who have an interest in learning more about children and their literature. Child Life and Literature integrates the development of the child and the various genre of literature, teaches group dynamics, coping skills, and real-life skills. Activities such a puppet shows, dramatizations, skits, marionette shows, video evaluations and comparisons, read-alongs, and sing-alongs will be an integral part of this course. The class will require 10 hours of hands-on experience with young children. The class is taught in a team approach with an English teacher. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

## **CHILD DEVELOPMENT AND PARENTING (8234)**

**Grades: 10-12**

**Suggested Prerequisite: Discovering Work and Family Sciences**

**Credit: 1**

Students enrolled in Child Development and Parenting focus on assessing the impact of the parenting role from conception through early childhood; taking responsibility for individual growth within the parenting role; preparing for a healthy emotional and physical beginning for parent and child; meeting developmental needs of children; building positive parent-child relationships, using positive guidance and discipline to promote self-discipline, self-respect, socially responsible behavior, obtaining parenting information, support, and assistance; and planning ways that families and society can share in nurturing children. Teachers highlight the basic skills of math, science, and communications when appropriate in the content.

## **NUTRITION AND WELLNESS (8229)**

**Grades: 10-12**

**Suggested Prerequisite: Discovering Work and Family Sciences**

**Credit: 1**

Students enrolled in Nutrition and Wellness focus on making choices that promote wellness and good health, analyzing relationships between psychological and social needs and food choice, choosing foods that promote wellness; obtaining and storing food for self and family; preparing and serving nutritious meals and snacks, selecting and using equipment for food preparation; and identifying strategies to promote optimal nutrition and wellness of society. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

## **INDIVIDUAL DEVELOPMENT (8210)**

**Grades: 10-12**

**Suggested Prerequisite: Discovering Work and Family Sciences**

**Credit: 1**

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

## **FAMILY RELATIONSHIPS (8225)**

**Grades: 11-12**

**Prerequisite: Discovering Work and Family Sciences**

**Credit: 1**

Students focus on analyzing the significance of the family, nurturing human development in the family throughout the life span, analyzing factors that build and maintain healthy relationships, developing communications patterns that enhance family relationships, dealing effectively with family stressors and conflicts, managing work and family roles and responsibilities, and analyzing social forces that influence families across the life span. Teachers highlight basic skills of math, science, and communications when appropriate in the content.

## **CAREER AND LIFE PLANNING (8227)**

**Grades: 10-12**

**Suggested Prerequisite: Discovering Work and Family Sciences**

**Credit: 1**

Focus on decision making skills for succeeding on your own! Topics include careers, nutrition, personal finances, housing, clothing care, transportation, and employment. Problem solving, communication, leadership and management are areas of focus.

## **GRADS (Parenting Education) (8278)**

**Grades: 9-12**

**Prerequisite: Application and Interview Required**

**Credit: 1**

**Application Required**

This course has been designed to meet the needs of teen parents. The course focuses on assessing the impact of the parenting role in society, taking responsibility for individual growth within the parenting role; meeting developmental needs of infants and toddlers; building positive parent-child relationships, using positive guidance and discipline to promote self-discipline, self-respect and socially responsible behavior, obtaining parenting information, support and assistance; managing resources and finances; planning for the future; and job related skills including career exploration. Teachers highlight the basic skills of math, science, and communication when appropriate in the content.

## **GRADS WORK STUDY (8218)**

**Grades: 9-12**

**Prerequisite: Application and Interview Required**

**Credit: 1**

This is an on-site internship course designed to meet the needs of students interested in careers working with infants and toddlers. The thirteen Child Development Associates competencies are explored throughout the course. Hands-on experience operating the infant toddler center is an integral part of this class. Teachers highlight the basic skills of math, science, and communication when appropriate in the content. Twenty hours of off-site work, family or volunteer activities are required.

## **TEACHER CADET (906220)**

**Grade: 12**

**Suggested Prerequisite: Child Development and Parenting**

**Credit: 1**

**Application Required**

The Teacher Cadet Program is considered an introduction or orientation to the teaching profession. It is not necessary that the student be planning a career in teaching. The program is intended for motivated students who enjoy a challenging, active learning environment.

# ESOL

**GRADUATION REQUIREMENTS:** ESOL students classified as freshmen in the fall of 2000 must meet the same State and SOL graduation requirements that apply to all students. (*Students classified as freshmen in 1999 or earlier do not have SOL requirements and only need English 9 to graduate*).

## ESL COURSES CAN FULFILL THE FOLLOWING GRADUATION REQUIREMENTS:

- **English:** *One of the four required English credits may be earned*
- *with ESL III or IV, but all ESOL students must pass English II, English II SOLs, and the English 11 Research Paper.*  
*-The usual sequence for English is ESL III or IV, Eng 9, Eng 10, and Eng 11. Some students may take ESL and Eng courses concurrently with ESOL teacher recommendation*
- **Elective Credit**
- **Sequential Electives**—*if ESL III and IV is not replacing English 12*
- **Foreign Language** – *up to 2 credits*

## ESOL I

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1 per course**

Students learn the basic skills needed to communicate in English in order to function in a regular classroom environment and as related to the American culture. Students learn to reproduce appropriate intonation and stress patterns for English through pattern drills, dialogues, and conversations. They study basic grammar and reproduce simple basic sentence patterns orally and in writing.

## ESOL II

**Grades: 9-12**

**Prerequisite: ESOL I or equivalent**

**Credit: 1 per course**

Students continue to improve their skills in conversation and composition. They learn to answer questions orally or in writing with specific information from selected ESOL content reading materials. Students learn to use library resources, to use logical organization in writing, and to use more complex grammar patterns orally and in writing. Students also continue to learn about American customs and culture.

## ESOL III

**Grades: 9-12**

**Prerequisite: ESL II or equivalent**

**Credit: 1 per course**

Students continue to gain more knowledge in the basic English skills of listening, speaking, reading, and writing. Students learn to follow multi-step written or oral directions and learn more about the mechanics of written English by learning to write paragraphs, completing a business letter, and summarizing familiar material presented orally or in writing. Students also learn to identify different types of literature, recognize and use common idioms, and to complete applications and forms.

## ESOL IV

**Grades: 9-12**

**Prerequisite: ESOL III or equivalent**

**Credit: 1 per course**

Students refine all language skills with regular classroom materials. Emphasis is on vocabulary for specific purposes and content-based instruction (science, social studies, and math concepts and language).

# Foreign Language

**FRENCH I (5110)**

**GERMAN I (5210)**

**SPANISH I (5510)**

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1**

Students use the language authentically, communicating in real-life situations from the beginning of the course. They learn the sound system and basic grammar and vocabulary, primarily through creative use of the language in meaningful contexts. Culture and customs are an integral part of the course.

**FRENCH II (5120)**  
**IB MYP FRENCH II (511220)**  
**GERMAN II (5220)**  
**IB MYP GERMAN II (520720)**  
**SPANISH II (5520)**  
**IB MYP SPANISH II (550720)**  
**Grades: 9-12**

**Prerequisite: Level I (C+ or better recommended) or equivalent; teacher recommendation**  
**Credit: 1**

Students continue to learn the language through its use in realistic contexts with more complex grammatical structures. Additional listening, speaking, writing and reading skills are acquired through practice with authentic materials and in real-life situations. The study of customs and culture is an integral part of the course.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

**FRENCH III (5130)**  
**IB MYP FRENCH III (513251)**  
**GERMAN III (5230)**  
**IB MYP GERMAN III (533250)**  
**SPANISH III (5530)**  
**IB MYP SPANISH III (553251)**  
**SPANISH IV (554001)**  
**Grades: 9-12**

**Prerequisite: Level II (C+ or better recommended) or equivalent; teacher recommendation**  
**Credit: 1**

The emphasis for study continues on all four skills of communication, listening, speaking, reading, and writing. Students continue to work toward the mastery of the essential elements of grammar and the development of a sufficient vocabulary to use the language proficiently in most situations. Reading skills continue development through use of more challenging authentic materials. Students' writing skills are expected to be increasingly complex and sophisticated. Students continue to develop an awareness and appreciation of other cultures and customs in their community and elsewhere.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

**IB FRENCH IV (514250) SL**  
**IB GERMAN IV (524250)**  
**IB SPANISH IV (554250) SL**  
**Grades: 11-12**

**Prerequisite: Successful completion of Level III**  
**Credit: 1**

IB Foreign Language IV is designed to develop proficiency in highly motivated language students. Students will be expected to master all the objectives of the Level IV Curriculum in a more rigorous and accelerated manner. The course seeks to develop all skills emphasizing language for communication, using authentic materials in preparation for the IB Language B Exam. An introduction to the International Baccalaureate Language B Program will be an integral part of this class.

**IB FRENCH V (515250) SL/ (515220) HL**  
**IB GERMAN V (525250)**  
**IB SPANISH V (555250) SL/ (515220) HL**  
**Grade: 12**

**Prerequisite: Successful completion of Level IV**  
**Credit: 1**

This is an advanced level course designed to strengthen fluency and proficiency in both oral and written foreign languages and to prepare students for the International Baccalaureate Language B Exam. The student will be able to speak the language with sufficient accuracy to participate in formal and informal conversations with ease. The student will be able to appreciate, discuss and comment (orally and in writing) on various literary forms. The in-depth study of literary works, contemporary articles and the review of complex linguistic structures will substantiate the course. Compositions will be on literary and issue-oriented themes. Self-expression will be encouraged through individual and group activities, oral presentations, and writing assignments.

**IB SPANISH A2 (SL) SPANISH LITERATURE**  
**Grades: 11-12**

**Prerequisite: Enrollment in the IB Program and successful completion of Spanish V. Native speakers who have successfully completed level IV may be eligible for the course with teacher recommendation**

The International Baccalaureate A2 Spanish course is designed to accommodate the needs of students who possess competent oral skills, but who require specific help with college level writing skills. The focus of the course is the study of literature and contemporary issues to determine effective writing styles and rhetoric as models for student writing and oral assignments. However, the evaluation standards are considerate of the realization that some A2 students may not be native Spanish speakers. The goal for Spanish A2 is to foster a critical mind capable of speaking and writing succinctly and analytically in Spanish. The course is designed to provide students with a sound linguistic base in order to encourage the use of the language, develop critical thinking skills and improve discussion strategies in Spanish.

### **LATIN I (5310)**

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1**

Latin I is an elective course offered in Grades 9-12. The student is introduced to the morphology of an inflected language with the primary focus on the noun system and indicative mood of verbs. The syntax of the language builds from words and phrases to sentences. The student develops a basic Latin vocabulary with opportunities to enlarge his/her English vocabulary through derivative study. Classical pronunciation to aid in reading comprehension is taught. The student is introduced to the customs of daily life and the geography of ancient Rome.

### **LATIN II (5320)**

**Grades: 9-12**

**Prerequisite: Latin I (C+ or better recommended) or equivalent and teacher recommendation**

**Credit: 1**

Latin II is an elective course offered in Grades 9-12. The student continues a study of Latin morphology with the primary focus on the subjunctive mood of verbs, infinitives and participles, increasingly sophisticated syntactic concepts are introduced, and the student expands his/her comprehension skills through readings of appropriate difficulty. The student continues to develop a Latin vocabulary and to enlarge his/her English vocabulary through derivative study. The student studies the people, places, and events that shaped Roman history.

### **LATIN III (5330)**

**Grades: 10-12**

**Prerequisite: Late II (C+ or better recommended) or equivalent, teacher recommendation**

**Credit: 1**

Latin III is an elective course offered in Grades 10-12 that serves to synthesize the skills already mastered, to complete the corpus of grammar, and to introduce specialized syntactic constructions. The course provides for translation practice, reading comprehension, an introduction to rhetorical devices, and both Latin and English vocabulary expansion through a study of unadapted Latin selections. The student develops an understanding of the relationship between the works and their social, economic, political, and historical contexts. Assessment will include an external student examination and course work evaluations by the instructor.

### **IB LATIN IV (534050)**

**Grades: 11-12**

**Prerequisite: Successful completion of Latin III**

**Credit: 1**

IB Latin IV is the first in a two-year classical language course offered in the International Baccalaureate elective group. Students who have successfully completed Level III may enroll in their junior year. It is the aim of this course to prepare students to read and analyze original Latin texts through an accelerated and rigorous manner. In addition, students will develop an awareness and understanding of the Roman World and its contribution to modern culture.

### **IB LATIN V (535150)**

**Grade: 12**

**Prerequisite: Successful completion of Latin IV**

**Credit: 1**

IB Latin V is the second in a two-year sequence that fulfills the Group VI elective requirement for the IB Diploma Programme. Students may enroll in this course during their junior or senior year after successful completion of IB Latin IV or demonstration of equivalent proficiency. Students will demonstrate advanced interpretive and analysis skills in working with Latin texts. Students will take the IB Latin V examination at the end of the course.

## **SPANISH NATIVE SPEAKERS PROGRAM**

**Spanish for Native Speakers Courses allow native or heritage speakers of Spanish to continue to learn Spanish in an accelerated manner commensurate with their pre-assessed skills. Students who take these courses may earn a foreign language credit. The goal is for both native and non-native speakers of Spanish to learn together in the advanced courses beyond Level III.**

### **SPANISH FOR NATIVE SPEAKERS – BEGINNING LEVEL (551050)**

**Grades: 9-12**

**Prerequisite: Native speaker of Spanish & Recommendation of teacher based on assessment of student's skills**

**Credit: 1**

This course is designed for Spanish-speaking students at the high school level. It recognizes the natural skill of native speakers who were born in the US and never had formal education in a Spanish-speaking country, or students who may have come from a Spanish-speaking country and due to many circumstances may not have had the opportunity to receive formal education, yet are proficient in their understanding and speaking of Spanish for interpersonal purposes. The course will build on these existing listening and speaking skills, and also develop basic reading and writing skills, with an emphasis on grammatical concepts. The course will try to tap the natural potential of native speakers to fill the gap of skill acquisition in general, especially emerging literacy, instill pride in a rich heritage, and allow students to succeed to their full potential.

**SPANISH FOR NATIVE SPEAKERS II -  
INTERMEDIATE LEVEL (552001)**

**Grades: 9-12**

**Prerequisite: Native speaker of Spanish &  
Recommendation of teacher based on assessment of  
student's skills or successful completion of Beginning Level**

**Credit: 1**

This course is designed for Spanish-speaking students at the high school level. This level is for Spanish-speaking native speakers who have some proficiency in all skills, to include listening, speaking, reading and writing, but at a level commensurate with students who have had interrupted or limited formal schooling in a Spanish-speaking school. It also recognizes the natural skill of native speakers and emphasizes expansion and not replacement of the student's existing language skills. The course will continue to tap the natural potential of native speakers to fill the gap of skill acquisition, instill pride in a rich heritage, and allow students to succeed to their full potential. The course will also continue to build on existing listening and speaking skills, and especially continue to develop reading and writing skills.

**SPANISH FOR NATIVE SPEAKERS III –  
ADVANCED LEVEL (553050)**

**Grades: 10-12**

**Prerequisite: Spanish for Native Speakers and  
Recommendation of teacher based on assessment of  
student's skills - or successful completion of  
Intermediate Level**

**Credit: 1**

This course is designed for Spanish-speaking students at the high school level who have had formal study of Spanish in a school setting in their native countries or have an advanced level of literacy. The course continues to recognize the natural skill of native speakers and emphasizes expansion and not replacement of the student's existing language. The course will continue to tap the natural potential of native speakers to fill the gap of skill acquisition, instill pride in a rich heritage, and allow students to succeed to their full potential. The course will build on existing reading and writing skills and expand authentic readings by authors of the Spanish-speaking world and require advanced compositions and projects.

# Health & Physical Education

## HEALTH AND PHYSICAL EDUCATION I (7300) IB MYP HEALTH AND PHYSICAL EDUCATION I (730050)

**Grades:** 9-12  
**Prerequisite:** None  
**Credit:** 1

Students participate in classroom instruction and individual and team activities designed to develop positive attitudes toward personal fitness and to assist them in acquiring knowledge and skill necessary to maintain personal fitness for a lifetime. Fifty percent of the course focuses on classroom instruction in fitness, nutrition, mental health, the functioning body, family relationships, disease prevention and control, and substance abuse prevention.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## HEALTH, PHYSICAL EDUCATION (7405) AND CLASSROOM DRIVER EDUCATION II (701520) IB MYP HEALTH AND PHYSICAL EDUCATION II (732550)

**Grades:** 9-12  
**Prerequisite:** Successful completion of Health and Physical Education I  
**Credit:** 1

Students continue to participate in classroom instruction and in individual and team activities designed to develop attitudes, knowledge, and skill necessary to maintain personal fitness for a lifetime. Fifty percent of the course focuses on classroom instruction in family life education, first aid including CPR, and classroom driver education. Classroom driver education consists of a minimum of 36 periods of structured learning experiences aimed at developing safe and efficient drivers. Completion of driver education through private instruction does not exempt the student from completing all course objectives.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## DRIVER EDUCATION (IN-CAR) (7005)

**Grades:** 10-12  
**Prerequisite:** Learner's Permit and enrollment in or successful completion of Classroom Driver Education and good academic standing  
**Credit:** 0

In-Car Driver Education includes multi-car range and on-street instruction. The class is scheduled on an elective basis for 14 class periods and is provided during Health, Physical Education and Classroom Driver Education II, study hall, or if approved, after school hours. All students should complete all requirements for ninth grade physical education before enrolling in the tenth grade Driver Education Program.

## PREVENTION AND CARE OF ATHLETIC INJURIES (7660)

**Grades:** 11-12  
**Prerequisite:** Successful completion of Health and Physical Education I and II  
**Credit:** 1

This course, taught by the school's certified athletic trainer, places emphasis on recognition, prevention, and treatment of common sports injuries. In addition, students learn anatomy and physiology of the human body, first aid, nutrition, and career opportunities. This course may be taken more than once for credit.

## PREVENTION AND CARE OF ADVANCED ATHLETIC INJURIES (766120)

**Grades:** 11-12  
**Prerequisite:** Successful completion of Prevention and Care of Athletic Injuries

**Credit:** 1

This course covers advanced techniques in the study and prevision, evaluation, and management of athletic injuries. The student is required to work with athletes and coaches, putting to practical use the skills learned. The student will improve athletic training skill level, as well as the communication and personal skills necessary to be an athletic trainer.

## ADVANCED PHYSICAL EDUCATION/WEIGHT TRAINING (765000)

**Grades:** 11-12  
**Prerequisite:** Successful completion of Health and Physical Education I and II  
**Credit:** 1

Advanced Physical Education/Wellness places emphasis on why exercise and fitness are important, what one's own fitness needs are and how to attain and maintain personal fitness for a lifetime. Additional emphasis is placed on the five health-related components of fitness including cardiovascular fitness, muscular strength and endurance, flexibility, and body fat control. Individual student fitness levels are assessed and students formulate personal goals and develop individual fitness programs. Instruction includes emphasis on health risk factors related to lifestyles and how nutrition affects wellness. The course includes classroom instruction as well as physical activity. This course may be taken more than once for credit.

**PHYSICAL EDUCATION ASSISTANT (7640)**

**Grades: 11-12**

**Prerequisite: Successful completion of Health and Physical Education I and II with a "B" average or better and approval of the department chairperson and the teacher being assisted**

**Credit: 1/2**

**Application Required**

This course offers opportunities for further positive learning experiences for the student who is interested in pursuing a career in Health and Physical Education. Emphasis is placed on assisting in the instructional program. This course may be taken more than once for credit.

# MATHEMATICS

Graphing calculators are an integral part of all mathematics courses.

## **CONCEPTS OF ALGEBRA & GEOMETRY (3113)**

**Grades: 9-10**

**Prerequisite: Teacher recommendation**

**Credit: 1 elective credit**

This course is designed for students who need to further develop conceptual understanding and mastery of prerequisite skills necessary to enroll in Algebra I. Students will construct mathematical expressions, equations, and formulas. There is also a strong emphasis on critical thinking skills as students explore mathematical reasoning and problem solving. Upon successful completions of this course, the student will receive one elective credit.

## **ALGEBRA I/PART I (313130)**

**Grades: 9-10**

**Prerequisite: Successful completion of Pre-Algebra and teacher recommendation**

**Credit: 1**

Algebra I/Part I employs an interactive, hands-on approach to teaching Algebra I/Part I concepts. The course uses the graphing calculator, and real-world and workplace applications as the platform for learning algebra. *Emphasis is placed on making connections in algebra to arithmetic, geometry, and statistics.* The course is designed to meet the needs of the contextual learner. Students receive one math credit toward graduation.

## **ALGEBRA I/PART II (313230)**

**Grades: 9-11**

**Prerequisite: Successful completion of Integrated Algebra/Geometry I or Algebra I/Part I**

**Credit: 1**

Algebra I/Part II employs an interactive, hands-on approach to teaching Algebra I/Part II concepts. The course uses the graphing calculator, and real-world and workplace applications as the platform for learning algebra. *Emphasis is placed on making connections in algebra to arithmetic, geometry, and statistics.* The course is designed to meet the needs of the contextual learner. Students receive one Carnegie unit of math and one math credit toward graduation. **Students must take the Virginia SOL test for Algebra I.**

## **MATH REVIEW**

**Grades: 9-10**

**Prerequisite: Failed 8<sup>th</sup> grade Math SOL and failed Concepts of Algebra and Geometry or Pre-Algebra**

**Credit: 1 elective credit**

This course is designed for students who need serious mathematics intervention in a small group setting. Basic math concepts such as place value and meanings of operations will be taught. Emphasis will be on developing understanding in areas of weakness. Upon successful completion of this course, the student will receive one elective credit.

## **ALGEBRA I (3130)**

**Grades: 8-12**

**Prerequisite: Successful completion of Pre-Algebra**

**Credit: 1**

This course extends students' knowledge and understanding of the real number system and its properties through the study of variables, expressions, equations, inequalities, and analysis of data derived from real-world phenomena. Emphasis is placed on making connections in algebra to arithmetic, geometry, and statistics. Critical thinking skills, calculator and computer technologies are essential components in this course. Students receive one Carnegie unit of math and one math credit toward graduation. **Students must take the Virginia SOL test for Algebra.**

## **IB MYP ALGEBRA I (313050)**

**Grades: 9-10**

**Prerequisite: Teacher recommendation and academic success in Pre-Algebra/enrollment in the IB Program**

**Credit: 1**

IB MYP Algebra I includes all objectives in the Algebra I curriculum for Prince William County Schools and the Commonwealth of Virginia Standards of Learning. In addition, enrichment and extension topics such as linear programming, absolute value functions, and real-life math applications are emphasized. Critical thinking skills and use of graphics calculator technology are also important components in this course. Alternative assessments such as projects, oral and written communication and cooperative learning activities are a regular part of this course. **Students must take the Virginia SOL test for Algebra I.**

*The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.*

**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## **GEOMETRY (3143)**

**Grades: 9-12**

**Prerequisite: Successful completion of Algebra I or Algebra I/Part II**

**Credit: 1**

Students investigate properties of triangles, quadrilaterals, polygons, circles, and solids using inductive and deductive reasoning. Conjectures about properties and relationships are developed inductively and then verified deductively. Vectors, transformations, algebra, and technologies are used as tools to solve geometry problems. **Students must take the Virginia SOL test for Geometry.**

## **IB MYP GEOMETRY (314350)**

**Grades: 9-12**

**Prerequisite: Successful completion of IB MYP Algebra I & teacher recommendation/enrollment in the IB Program**

**Credit: 1**

IB MYP Geometry is an accelerated program of study for students interested in pursuing the IB level math courses. The course includes all objectives from the Geometry curriculum with particular emphasis on algebraic connections. Additional topics in trigonometry and transformational graphing are included and the graphics calculator is used throughout the course. Students must take the Virginia SOL test for Geometry.

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***THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.***

## **ALGEBRA II (3135)**

**Grades: 10-12**

**Prerequisite: Successful completion of Geometry**

**Credit: 1**

Algebra II expands and clarifies concepts introduced in Algebra I. New topics include sequence and series, polynomial functions, logarithms, quadratic systems, and conics. Emphasis is on algebraic processes and their use in problem solving. The course will enhance the student's understanding of the function concept and deductive reasoning in algebra. **Students must take the Virginia SOL test for Algebra II.**

## **IB MYP ALGEBRA II (313551)**

**Grades: 9-11**

**Prerequisite: Successful completion of IB MYP Algebra I and IB MYP Geometry II and teacher recommendation**

**Credit: 1**

IB MYP Algebra II is the pre-requisite for IB Math Studies and IB Math SL I at Gar-Field High School. The course incorporates and expands the knowledge from both IB MYP Algebra and Geometry. The course includes all objectives from the Algebra II curriculum with particular emphasis on the development and completion of projects emphasizing the areas of interaction of the Middle Years Program and internationalism. A graphics calculator is used throughout the course. As in all IB MYP courses, student will acquire technical writing skills within the mathematics curriculum. **Students must take the Virginia SOL test for Algebra II.**

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***

***THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.***

## **IB MYP ALGEBRA II/TRIGONOMETRY (313750)**

**Grades: 10-11**

**Prerequisite: Successful completion of IB MYP Geometry and teacher recommendation**

**Credit: 1**

This course is the prerequisite for IB Math SL I and IB Math HL I. The content of this course extends and expands the topics explored in Algebra II and Trigonometry. **Students must take the Virginia SOL test for Algebra II.**

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***  
***THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.***

## **COMPUTER MATHEMATICS (3184)**

**Grades: 9-12**

**Prerequisite: Completed or currently enrolled in Geometry or Senior Geometry**

**Credit: 1**

The computer mathematics course is intended to provide students with experiences in using the computer to solve problems which can be set up as mathematical models. Programming concepts, problem-solving strategies, and mathematical applications should be integrated throughout the course while the student learns Basic language.

## **ADVANCED COMPUTER MATH/ "IB MYP COMPUTER SCIENCE" (319950)**

**Grades: 10-12**

**Prerequisite: Successful completion of Algebra II with teacher recommendation**

**Credit: 1**

Advanced Computer Science Studies has a focus to provide the student with a conceptual background in computer science. Topics include computer architecture, data representation, operating systems, computing systems in society, and software development. Students will implement the major stages of software development using the high level language C++. Topics in C++ will include loops, selections, arrays, records, and manipulation of files.

## **PROBABILITY/STATISTICS (319001)**

**Grades: 11-12**

**Prerequisite: Successful completion of Algebra II**

**Credit: 1/2**

The content of Probability and Statistics includes theory of probability, description of statistical measurements, probability distributions and statistical inference. The course is designed for the student who plans to enter such fields as business, economics, education, psychology, sociology, medicine, etc., which require statistics for their effective pursuit. Successful completion of this course will be adequate preparation for the usual college courses offered in these fields. In addition, any student who is preparing for study in mathematics, physical sciences or engineering will eventually find a need for one or more courses in statistics. This course will provide the student the necessary fundamental background in probability and statistics.

### **DISCRETE MATHEMATICS (315402)**

**Grades: 11-12**

**Prerequisite: Successful completion of Algebra II**

**Credit: 1/2**

This elective mathematics course provides students with the opportunity to combine previously learned mathematics with selected concepts of recent mathematics to solve problems created by modern society. In this course, the main focus is problem solving in a discrete setting. Techniques that are not considered in the current traditional courses of algebra, geometry, and calculus will be utilized. As students solve problems they will analyze and determine whether or not a solution exists (existence problems), investigate how many solutions exist (counting problems), and focus on finding the best solution (optimization problems). Connections will be made to other disciplines.

### **ADVANCED MATHEMATICS (316001)**

**Grades: 11-12**

**Prerequisite: Successful completion of Algebra II**

**Credit: 1**

Advanced Mathematics covers both Algebra III and Trigonometry topics. Emphasis is on functions and their inverses, equations and inequalities, graph theory, matrices, sequences and series, conic sections, and logarithms. Trigonometry topics include triangular and circular definitions of the trig functions, trig identities, and solutions of trig equations.

### **ADVANCED PLACEMENT STATISTICS (3192)**

**Grades: 11-12**

**Prerequisite: Successful completion of Algebra II**

**Credit: 1**

The Advanced Placement Statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

1. Exploring Data Observing patterns and departures from patterns
2. Planning a Study Deciding what and how to measure
3. Anticipating Patterns Producing models using probability theory and simulation
4. Statistical Inference Confirming models

Students who successfully complete the course and examination may receive credit for a one-semester introductory college statistics course.

### **IB MATHEMATICAL STUDIES (SL) (316450)**

**Grades: 11-12**

**Prerequisite: Successful completion of Algebra II, IB MYP Algebra II or IB MYP Algebra II/Trigonometry**

**Credit: 1**

IB Mathematical Studies (SL) is intended to provide a realistic mathematical course for students with varied backgrounds and abilities. The skills needed to cope with the mathematical demands of a technological society are developed but no great technical expertise is required. Students likely to need to use mathematics in the pursuit of a science or mathematics career are advised to consider IB Math Methods. A substantial piece of work in the form of a project is

required for this course. Topics include sets, logic, probability and statistics, functions, simple sequences, linear programming, vectors, matrices, geometry and trigonometry.

### **IB MATH SL I (319851)**

**Grades: 12**

**Prerequisite: Successful completion of IB MYP Algebra II**

**Credit: 1**

IB Mathematics SL I is the first year in a two-year mathematics course that fulfills the Group 5 requirement in the IB Diploma Program. The course is designed for strong math students who are preparing for studies in subjects such as chemistry, economics, psychology and business administration. The goal of this course is to provide students with a solid foundation of vectors, matrices, statistics, probability and pre-calculus topics. Students will use technology as a tool for learning and develop an awareness of global contributions to the field of mathematics sciences. Students wishing to study subjects such as physics, engineering and technology should take the Mathematics HL course.

### **IB MATHEMATICS SL II (319852)**

**Grades: 11-12**

**Prerequisite: Successful completion of IB Math SL I**

**Credit: 1**

IB Mathematics SL II is the second year of the two-year sequence in mathematics that meets the requirements of the IB Diploma Program. Students who have successfully completed IB Mathematics SL I may enroll in this course. This course builds on and extends the knowledge base of IB Mathematics SL I. IB Mathematics SL II is the study of concepts, techniques, and applications of calculus. Students in this course will complete two portfolio projects and will take the IB Mathematics SL examination. Students will also be prepared to take the AP Calculus AB examination at the conclusion of this course.

### **IB MATHEMATICS HL I (319751)**

**Grades: 11-12**

**Prerequisite: A grade of "B" or better in IB MYP Algebra II/Trigonometry I and teacher recommendation**

**Credit: 1**

IB Higher Math I is the first year in a two-year mathematics course which fulfills the Group 5 requirement in the IB Diploma Program. Students enroll in this course during their junior year and must have successfully completed IB MYP Algebra II/Trigonometry. The course is designed for the strong math student whose next formal experience with mathematics will be college level courses in calculus, linear algebra, finite mathematical structures or probability and statistics. The goal of this course is to provide students with a strong foundation or pre-calculus concepts, techniques, and applications. Students will use technology as a tool for learning and develop an awareness of global contributions to the field of mathematical sciences.

**IB MATHEMATICS HL II (319752)****Grades: 12****Prerequisite: A grade of “B” or better in IB Mathematics Higher Level I and teacher recommendation****Credit: 1**

IB Higher Math II is the second year of the two-year sequence in mathematics that meets the requirements of the IB Diploma Program. Students who have successfully completed IB Mathematics Higher Level I may enroll in this course during their senior year. This course builds on and extends the knowledge base of IB Higher Math I. IB Higher Math II is the study of concepts, techniques, and applications of calculus, including derivatives, integrals, vectors, sequences, and series. Students in this course will complete three portfolio projects and will take the IB Higher Math examination.

**IB COMPUTER SCIENCE I (SL) (318551)****Grades: 11-12****Prerequisite: Successful completion of Advanced Computer Math****Credit: 1**

This course covers advanced topics in computer science. Advanced topics in software development include sorting and searching algorithms, dynamic data structures, stacks and queues, recursion, and algorithm evaluation. Additional topics in Boolean logic, data representation, and system life cycles will be taught. Students are required to produce a dossier and to take the IB Computer Science (SL or HL) examination.

**IB COMPUTER SCIENCE II (HL) (318552)****Grades: 12****Prerequisite: Successful completion of IB Comp Sci I****Credit: 1**

The IB Computer Science II course is the second year in the higher-level computer science curriculum. The following topics will allow students to understand the basic principles of computer architecture, to understand the fundamental causes of many common errors, design simple circuits, construct some common algorithms, data structures, system life cycles, and file organization. Students will be required to complete an extensive program dossier and case study as part of the course assessment. Boolean logic, and data representation are additional topics. Students are required to take the IB Computer Science HL examination.

# MUSIC

## **BAND**

**Ninth Grade Band (923300)**

**IB MYP Band (923350)**

**Intermediate Band (923320)**

**Advanced Band (923420)**

**Marching Band (924000)**

**Jazz Band (9250)**

**Grades: 9-12**

**Prerequisite: Audition required for Intermediate, Advanced, and Jazz Bands**

**Credit: 1**

The high school band program offers various courses to develop the student's musical skills. Classes in beginning band, intermediate band, advanced band or jazz band allow students to learn technical and ensemble skills through the study of related literature. Some after-school rehearsals and performances are required of all students as an integral part of these courses. Marching band is offered at all schools as part of the high school band program. These courses may be taken more than once for credit. Students must provide their own instruments or make arrangements with the teacher for school-owned equipment.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## **CHOIR**

**IB MYP Choir (928550)**

**Varsity Choir (9285)**

**Advanced Varsity Choir (9286)**

**Concert Choir (928920)**

**Men's Choir (928220)**

**Treble Choir (926000)**

**Vocal Ensemble (928020)**

**Grades: 9-12**

**Prerequisite: Auditions expected for all choirs except Varsity and Bass**

**Credit: 1**

The high school choral program offers various courses to develop the student's musical skills based on his/her level of ability. Classes in varsity choir, concert choir, bass choir, treble choir, or vocal ensemble allow students to learn a variety of vocal skills through the study of related choral literature. Students in these classes develop technical facility and proficient musicianship through a variety of performance experiences. Through group performances, solos, and ensembles, the student is exposed to standard choral repertoire encompassing various styles and periods of music. Some after-school rehearsals and performances are required of all students as a part of these courses. These courses may be taken more than once for credit.

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**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## **WOMEN'S CHAMBER CHOIR (928400)**

**Grades: 10-12**

**Prerequisite: One year of high school choir and audition**

**Credit: 1**

This class offers the opportunity for girls in Grades 10-12 to study and perform three and four-part music for the female voice at an advanced level. Basic vocal skills will be expanded and a high level of music reading will be encouraged. The class will be selected by audition only and is limited to 25-30 singers.

## **ORCHESTRA**

**Intermediate Orchestra (923820)**

**IB MYP Orchestra (923850)**

**Advanced Orchestra (923920)**

**Orchestra Ensemble (925120)**

**Grades: 9-12**

**Prerequisite: None, except audition for Advanced Orchestra and Orchestra Ensemble**

**Credit: 1**

Students who enroll in the high school orchestra develop technical and ensemble skills through the study of related orchestral literature. Students receive fundamental training in the proper playing of a stringed instrument and study literature commensurate with their level of ability. Members of this class form the representative string performing group for the school. Some after-school rehearsals and performances are required of all students as part of this course. These courses may be taken more than once for credit.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***

**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## **CLASS PIANO**

**Class Piano (925520)**

**Grades: 9-12**

**Prerequisite: None**

**Credit: 1**

Students who enroll in the piano class will be taught the necessary music fundamentals required to successfully play this instrument. Scales, music, vocabulary, dynamics, technique, and rhythmic skills will be emphasized. All students will learn the beginning level technical and ensemble skills necessary for performance. Some limited performance opportunities may be provided in this class. This course may be taken more than once.

**IB MUSIC I (922750)****Grades: 11****Prerequisite: Two years of high school music****Credit: 1**

IB Music I is part one of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The course develops an in-depth understanding of music theory. Study will include intervals, choral development, transposition, composition, analysis, ear training, sight-singing, and basic piano skills. Students will be required to participate in high school performing organizations and take private lessons during the course.

**IB MUSIC II (922850)****Grades: 12****Prerequisite: Successful completion of IB Music I****Credit: 1**

IB Music II is part two of a two-year program resulting in an International Baccalaureate Certificate or Diploma. The course is a continuation of IB Music I, with emphasis on music history. Students will explore all time frames of music history. Topics covered will include Gregorian Chant, baroque music, classical music, 20<sup>th</sup> Century music, and score reading. Students will be required to keep a composition portfolio and perform a lecture-recital. Depending on their skill and experience, students may prepare for either higher level or subsidiary level examinations. Students will prepare for the IB Music HL exam.

# *ROTC*

## **LEADERSHIP EDUCATION I (MCJROTC) (791312)**

**Grades: 9-11**

**Prerequisite: Student must be able to participate in physical education program.**

**Credit: 1**

### **Application Required**

The course of instruction is a combined program of classroom instruction and practical application designed to emphasize leadership education, citizenship, self-discipline, and character development. Basic training in leadership tenets, physical fitness, health, drill and ceremonies, military customs and courtesies, general military subjects, grooming standards, uniform wear and care, and military organization are taught as part of the cadets' orientation to the Marine Corps and as a means to develop leadership qualities taught in class. Cadets are expected to wear designated Marine Corps uniforms on a weekly basis, and adhere to appropriate grooming standards. Extracurricular activities include Drill Team/Color Guard, orientation trips, community service projects, and social events. The first year also gives the new cadets exposure to personal growth and responsibility, and establishes a foundation of military structure and tradition.

## **LEADERSHIP EDUCATION II (MCJROTC) (791612)**

**Grades: 10-12**

**Prerequisite: Successful completion of Leadership Education I, and student must be able to participate in physical education program.**

**Credit: 1**

This course builds upon the knowledge attained during Leadership Education I. The course continues to stress classroom instruction and practical application designed to emphasize leadership education, citizenship, personal growth and responsibility, self-discipline, and character development. Training in leadership, physical fitness, drill and ceremonies, military customs and courtesies, general military subjects, and military history are taught as part of the cadets' further orientation to the Marine Corps and as a means to develop leadership qualities taught in class. Cadets are expected to wear designated Marine Corps uniforms on a weekly basis, adhere to appropriate grooming standards, and perform leadership roles within the MCJROTC cadet organization. Extracurricular activities include Drill Team/Color Guard, orientation trips, community service projects, and social events.

## **LEADERSHIP EDUCATION III (MCJROTC) (791812)**

**Grades: 11-12**

**Prerequisite: Successful completion of Leadership Education I and II, and student must be able to participate in physical education program.**

**Credit: 1**

This course builds upon the knowledge and experience attained during Leadership Education I and II. The course continues to stress classroom instruction and practical application designed to emphasize leadership education, citizenship, personal growth and responsibility, self-discipline, and character development. Training in leadership, physical fitness, drill and ceremonies, military customs and courtesies, general military subjects, and military history are taught as part of the cadets' further orientation to the Marine Corps and as a means to prepare them for life after high school. Cadets are expected to wear designated Marine Corps uniforms on a weekly basis, adhere to appropriate grooming standards, and perform leadership roles within the MCJROTC cadet organization. Extracurricular activities include Drill Team/Color Guard, orientation trips, community service projects, and social events.

## **LEADERSHIP EDUCATION IV (MCJROTC) (909012)**

**Grade: 12**

**Prerequisite: Successful completion of Leadership Education I, II, and III, and student must be able to participate in physical education program.**

**Credit: 1**

The course allows senior cadets the opportunity to serve as both a training facilitator for the MCJROTC instructional staff and as a mentor for junior cadets. Senior cadets are expected to display positive attitudes, requisite leadership ability, and perform in leadership roles within the MCJROTC cadet organization. Senior cadets are assigned to Leadership Education I, II, or III classes to provide leadership, serve as role models, conduct training, and mentor junior cadets as a means to enhance their leadership education and prepare them for a career after high school. Cadets are expected to wear designated Marine Corps uniforms on a weekly basis, adhere to appropriate grooming standards, and perform leadership roles within the MCJROTC cadet organization. Extracurricular activities include Drill Team/Color Guard, orientation trips, community service projects, and social events.

# SCIENCE

## EARTH SCIENCE (4210)

Grades: 9-12

Prerequisite: None

Credit: 1

Earth Science is a laboratory course that provides students with an opportunity to explore the various physical phenomena that affect the earth. This course, which encompasses research design concepts, helps students become more aware of their surroundings through the study of astronomy, space science, meteorology, oceanography, physical geology, and environmental resources. **Students must take the Virginia SOL for Earth Science.**

## IB MYP EARTH SCIENCE (421051)

Grades: 9-12

Prerequisite: Successful completion of Grade 8 science and teacher recommendation/enrollment in the IB Program

Credit: 1

IB MYP Earth Science is designed for the IB student that wishes to concentrate on rigorous earth science principles and processes that will lead to more qualitative sciences. Students will investigate the natural sciences of Astronomy, Oceanography, Meteorology, and Geology. The IB internal assessment will serve as a guide as students apply the scientific method. **Students must take the Virginia SOL for Earth Science.**

*The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.*  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## BIOLOGY I (4310)

Grades: 9-12

Prerequisite: None

Credit: 1

Biology I is a laboratory-based course that includes the following major areas of study: ecology, taxonomy, cellular chemistry, genetics, microbiology, and physiology. These areas are developed within a framework of principle biological theories with an emphasis on critical thinking and science process skills. **Students must take the Virginia SOL for Biology.**

## IB MYP BIOLOGY I (431050)

Grades: 9-12

Prerequisite: Successful completion of Grade 8 science and teacher recommendation/enrollment in the IB Program

Credit: 1

IB MYP Biology is a survey of the animal, plant, and protozoan kingdoms, includes consideration of the classification, distribution, and life processes of the major groups of each kingdom. Students will use scientific research methods to investigate scientific principles. Extensive laboratory work will be a part of the course, and students are required to submit written lab reports. Students will explore the skills used by practicing biologists and how biology can help solve environmental problems. **Students must take the Virginia SOL for Biology.**

*The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.*  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

## CHEMISTRY I (4410)

Grades: 10-12

Prerequisite: Successful completion of one year of laboratory science, Algebra I (grade of "B" or better)

Co-requisite: Enrollment in Geometry or Integrated Algebra/Geometry III

Credit: 1

Chemistry I emphasized the qualitative and quantitative study of substances and the changes that occur in them. Students will investigate using various lab techniques and apply mathematical skills with the use of chemical quantities in problem solving. A survey of concepts includes atomic structure, chemical bonding, formulas and equations, stoichiometry, and other calculations based on molar relationships, phases of matter and the kinetic theory, acid-base theory, and simple organic chemistry. This course is intended for college preparatory and general education purposes. **Students must take the Virginia SOL for Chemistry.**

**IB MYP CHEMISTRY (441150)****Grades: 11-12****Prerequisite: Successful completion of one year of laboratory science and Algebra I (grade of “C” or better)****Credit: 1**

This course will include the major concepts of chemistry, including atomic structure and bonding, formulas and equations, stoichiometry, oxidation-reduction, thermodynamics, chemical equilibrium, acid-base theory, and simple organic chemistry. Students will use scientific research methods to investigate scientific principles. Laboratory experiments are designed to illustrate major concepts and to reinforce the IB Group 4 rubric. Students will be required to submit written laboratory reports. **Students must take the Virginia SOL for Chemistry.**

*The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.*  
**THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.**

**PHYSICS (451020)****Grades: 11-12****Prerequisite: Successful completion of IB MYP Algebra II/****Trigonometry (or concurrent enrollment)****Credit: 1**

Physics is a preparatory course for those students planning to pursue IB Physics. Students will study mechanics, heat, electro-magnetism, light and sound. This course will be taught at an accelerated pace and students will be expected to have strong study skills and the ability to work independently. Students will design their own laboratory investigations and submit written laboratory reports.

**IB ENVIRONMENTAL SYSTEMS (SL) (451151)****Grades: 11-12****Prerequisite: Completion of IB MYP Biology and IB MYP Chemistry with a grade of “C” or better.****Credit: 1**

The intent of this course is to help students develop a coherent perspective on the environment. The course uses the concepts and terminology associated with a system approach to study. These principles are subsequently applied to the study of natural ecosystems: their component parts and the functional relationships that maintain their dynamic integrity. Topics include global cycles and physical systems, human population, freshwater ecosystems, conservation and biodiversity, and pollution. Students are required to take the IB Environmental Systems exam. Diploma candidates taking IB Biology may not use this course as their sixth subject.

**IB BIOLOGY I (HL) (438050)****Grades: 11****Prerequisite: Successful completion of IB MYP Biology I and IB MYP Chemistry I and teacher recommendation****Credit: 1**

IB Biology I is the first year of 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 are required to submit written laboratory reports. Key points of the course are structure and function, universality versus diversity, and equilibrium within systems.

**IB BIOLOGY II (HL) (439050)****Grades: 12****Prerequisite: Completion of IB Biology I with a grade of “C” or better****Credit: 1**

IB Biology II is an introduction to advanced anatomy and physiology and plant biology. A review of IB Biology I principles and processes in the areas of molecular and cellular biology, genetics, ecology, and organisms is included. Students are required to take the IB examination at the end of the course. With a satisfactory score, students may receive credit for introductory college biology. Laboratory work is an integral part of this course and students are required to submit written laboratory reports.

**BIOLOGY II: SURVEY OF ADVANCED TOPICS IN BIOLOGY (432001)****Grades: 11-12****Prerequisite: Successful completion of Biology I and Chemistry I with a “C” or better****Credit: 1**

Biology II: Survey of Advanced Topics in Biology is an academically rigorous, in-depth, second year study of selected areas of biology that allows highly motivated students to delve more deeply into life systems and processes. Extensive laboratory work is part of this course. Emphasis is placed on research skills and techniques, and dissection is an integral part of this course.

**IB CHEMISTRY I (HL) (448050)****Grades: 11****Prerequisite: Successful completion of IB MYP Chemistry I, Algebra II, and teacher recommendation****Credit: 1**

IB Chemistry I is the first year of a survey course of the major principles of chemistry including the structure of matter, kinetic theory of gasses, chemical equilibrium, chemical kinetics, thermodynamics, acid-base theory, and organic chemistry. Emphasis is on problem solving, proficiency in mathematical usage, and improvement and expansion of laboratory techniques as related to contemporary chemistry to include experimental design. Students will be required to submit written laboratory reports.

**IB CHEMISTRY II (HL) (449050)****Grades: 12****Prerequisite: Successful completion of IB Chemistry I with a grade of “C” or better****Credit: 1**

IB Chemistry is the second year of a survey course of the major principles of chemistry. Emphasis is on research techniques, advanced laboratory techniques, advanced problem solving and synthesis or prior knowledge to investigate IB option topics. With a satisfactory IB exam score, students may receive credit for introductory college chemistry. Students will be required to submit written laboratory reports.

**IB PHYSICS I (SL) (458050)****Grades: 11-12****Prerequisite: Successful completion of IB MYP Physics with a grade of “C” or better and IB MYP Algebra II/Trigonometry with a grade of “B” or better****Credit: 1**

IB Physics I is an extremely fast-paced, rigorous course following the International Baccalaureate Standard Level curriculum. Building on their background from IB MYP Physics, students will study mechanics, heat, electromagnetism, light, sound, and modern physics in greater depth. Students will design and implement their own laboratory investigations and will be graded using IB assessment criteria. They will participate in the interdisciplinary “Group 4 Project” and will sit for the Standard Level examination at the end of the course.

**ASTRONOMY (4260)****Grades: 11-12****Prerequisite: A grade of “C” or better in Earth Science and either Biology I or Chemistry I****Credit: 1**

Astronomy is designed to be a more in-depth, mathematical treatment of the astronomical concepts presented in introductory Earth Science. Topics, such as the universe, universal laws, galaxies, stellar evolution, the solar system and its motion, and the exploration of space will be discussed.

**OCEANOGRAPHY (4250)****Grades: 11-12****Prerequisite: A grade of “C” or better in Earth Science and Biology I or Chemistry I****Credit: 1**

Oceanography is designed to be a more in-depth treatment of the oceanography concepts present in Earth Science. It is a broad survey course dealing mainly with physical oceanography and covering such topics as the geology and geography of ocean basins, physical properties of sea water, marine chemistry, salinity and density, circulation of the oceans, waves and tides; and oceanographic instruments, tools, and methods. Emphasis is placed on marine biology, ocean policy, and ocean ecology as well.

**LAB ASSISTANT (461000)****Grades: 10-12****Prerequisite: Successful completion of subject in which assisting and approval of department chair****Credit: 1/2 for 4620****Application Required**

Lab Assistant offers the student the opportunity to learn more science while assisting a science teacher. The instructional objectives vary according to the course in which the student is assisting and according to the program, interests, and ability of the student. This course may be taken more than once for credit with prior approval of the science department chairperson. *To earn credit for Lab Assistant, instructional objectives and evaluative criteria must be delineated as per Regulation 681-3, Section III. C.*

# **SOCIAL STUDIES**

## **WORLD HISTORY from 1500 (222120)**

**Grades: 9**

**Prerequisite: Assignment to Grade 9**

**Credit: 1**

The development of world civilization as a background for studying the interdependent world networks is examined. Topics include selected Western and non-Western civilizations beginning with the Middle Ages as the setting for analyzing the relationship of important events, persons, and trends to the development of social, political, cultural, and economic institutions. Emphasis is given to the skills of interpretation, analysis, and synthesis.

## **IB MYP WORLD HISTORY (222150)**

**Grades: 9**

**Prerequisite: Successful completion of Grade 8 /enrollment in the IB Program**

**Credit: 1**

IB MYP World History is a survey course of World History from the 11<sup>th</sup> Century through the 20<sup>th</sup> Century. Social, economic, political and religious themes will be stressed. Students will be introduced to the skills of historical interpretation and analysis as demonstrated by discussion, research, and oral and written presentation. This course will prepare the student for IB MYP/AP Government and Politics: Comparative.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***

***THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.***

## **WORLD GEOGRAPHY (2210)**

**Grades: 10**

**Prerequisite: Assignment to Grade 10 or above**

**Credit: 1**

The development of a global perspective concerning major cultural and geographic characteristics in the modern world is studied. Various regions and sub-regions of the world are examined in order to identify regional differences and similarities among people and the environment. Both geographic skills and critical thinking skills are emphasized in a study of the challenges and issues confronting the world today.

## **IB WORLD GEOGRAPHY (2210)**

**Grades: 11-12**

**Credit: 1**

In this college level course, students will develop a global perspective and a sense of world interdependence by understanding the relationship between people, place, and environment. Additional topics include: environment quality; planning and management of resources for present and future generations; the relevance of

geography in analyzing contemporary world issues; issues of social justice, equality and respect for others and an appreciation of diversity. Students will explore a wide range of geographical methodologies and apply appropriate techniques of inquiry including Geographical Information Systems technologies to develop solutions to geographical related issues and problems. *The course culminates in an external assessment that provides the possibility of college credit.*

## **IB MYP/AP GOVERNMENT AND POLITICS: COMPARATIVE (245050)**

**Grades: 10-12**

**Recommended Prerequisite: IB MYP English 9 and IB MYP World History from 1000 with a grade of "B" or better**

**Credit: 1**

This government course includes the body of knowledge equivalent to that of introductory college courses in Comparative Government. Students will examine the politics of Great Britain, Russia, the PRC, Mexico, Iran, Nigeria and the U.S. Emphasis will be on research, data analysis, analytical writing, and verbal presentations. In May, students will take the Advanced Placement Government examination to qualify for advanced standing and/or college credit. Note: Students who intend to pursue the IB Diploma are encouraged to take this course as sophomores. The senior year schedule for the IB Diploma candidate does not include the government course required by the Commonwealth of Virginia. IB students who are planning to enroll in IB History as certificate candidates are encouraged to take this course during their sophomore or junior year.

***The integration of the IB MYP Areas of Interaction will be used as a means of broadening student experience, placing context, and helping student to develop attitudes and values based on knowledge and skills.***  
***THIS COURSE WILL BE USED FOR MYP ASSESSMENTS AND MONITORING.***

## **U.S. AND VIRGINIA HISTORY (2360)**

**Grades: 11**

**Prerequisite: Assignment to Grade 11**

**Credit: 1**

The origins of American ideals and institutions are examined. A study of major events, issues, and personalities in the past provides a perspective for studying the impact of contemporary issues and problems. The role of Virginia in the development of the United States, yesterday and today, is included. The methodology of the social scientist is emphasized as a means of analyzing problems and issues in American history.

**IB HISTORY I: HISTORY OF THE AMERICAS (HL)  
(236051)**

**Grades: 11-12**

**Prerequisite: Successful completion of IB MYP World History, IB MYP/AP Comparative Government and Politics**

**Credit: 1**

IB History of the Americas is a survey course of United States, Canadian, and Latin American history that explores the region's history from the first recorded European contacts with Native American Civilizations through the 20<sup>th</sup> Century including analysis of the U.S. Civil War, industrialization, expansion, and the Latin American dictatorships. This academically rigorous course focuses on the American region's historical experience as well as its development of political, economic, and social systems. Students will refine and apply their skills of historical interpretation and analysis as demonstrated by discussion, presentation, and written work.

**U.S. AND VIRGINIA GOVERNMENT (2440)**

**Grades: 12**

**Prerequisite: Assignment to Grade 12**

**Credit: 1**

The American system of national, state, and local government, including the roles of the United States in global affairs, is analyzed. The basic principles of American social, economic, and political institutions are studied. Democratic beliefs and the importance of participation in the democratic process are emphasized. Virginia's contributions to the governmental process are an integral part of the study. Opportunities are provided to learn about the decision-making process in a democratic society, as well as to refine concept and communication skills required in a participatory democracy.

**IB HISTORY II: TOPICS IN TWENTIETH CENTURY HISTORY (HL) (238750)**

**Grades: 12**

**Prerequisite: Successful completion of IB History I: History of the Americas**

**Credit: 1**

IB History II is a survey course of 20<sup>th</sup> Century World History. The course will focus on important 20<sup>th</sup> Century topics such as causes, practices, and effects of war; the rise and rule of single-party states; East-West relations after 1945; nationalists and independence movements; decolonization; and the emergence and problems of new nations. This course will continue to stress political, economic, and social systems as well as require students to further develop their skills of historical interpretation and analysis. Students will take the IB HL examination.

**IB ECONOMICS (280150)**

**Grades: 12**

**Prerequisite: IB MYP/AP American & Comparative Government and Politics and Algebra II**

**Credit: 1**

IB Economics is a social science, closely related to other academic disciplines such as sociology, political science, and anthropology. History, geography, and mathematics also provide background material for the study of economics. This academically rigorous course focuses on the choices that must constantly be made by individuals, firms, and governments, which will affect both their own economic well being and that of society as a whole. The questions of "What?" "How?" and "For whom?" are central to the field of economics. Topics will be approached from an international perspective. IB Economics puts great emphasis on the issue of development in the belief that the study of economics and economic development are part of the solution to contemporary real world problems.

**PSYCHOLOGY (2900)****Grades: 12****Prerequisite: Assignment to Grade 12****Credit: 1**

Psychology will introduce the student to the study of individual human behavior. Students will be given an opportunity to explore subjects studied by behavioral scientists and to apply psychological concepts to everyday human problems and life. Topics will include the scientific methods used in psychology, human growth and development, the study of personality, and mental health and behavioral disorders.

**SOCIOLOGY (2500)****Grades: 12****Prerequisite: Assignment to Grade 12****Credit: 1**

Problems and issues about social behavior, organizations, and institutions of people are examined. The study includes an examination of the structure and the function of groups, the variations in the social order and the dynamics of change in a social environment. There is a focus upon the development of skills for participating more effectively in contemporary society by examining issues and seeking solutions to problems involving the interactions of people.

**IB SOCIAL ANTHROPOLOGY (237450)****Grades: 11-12****Prerequisite: Interest in the subject****Credit: 1**

IB Social Anthropology is the comparative study of human societies and culture. It explores both the universal principals of social and cultural life and characteristics of specific societies and cultures. IB Social Anthropology focuses on small groups as well as on kinship relations, symbolism, exchange, political organizations, social control and gender. IB Social Anthropology examines society from the small scale to the complex industrial scale, as well as modern nation states. As a discipline, IB Social Anthropology will provide students with a link for all social sciences.

# *SPECIAL EDUCATION*

## **COMPENSATORY SKILLS I (7866) COMPENSATORY SKILLS II (7867) COMPENSATORY SKILLS III (7868) COMPENSATORY SKILLS IV (7869)**

**Grades: 9-12**

**Prerequisite: Any LD resource student whose IEP indicates the appropriateness of the compensatory skills course offering. Students can take Compensatory Skills each year up to four years.**

**Credit: 1/2 per semester**

Compensatory Skills is designed to provide students with individualized remediation and compensatory skills in their specific area(s) of learning disabilities as identified through the eligibility process. Areas include oral expression, listening comprehension, basic reading skills, reading comprehension, mathematics calculation, mathematics reasoning, and/or written expression.

## **EMPLOYMENT OPPORTUNITIES FOR YOUTH (EMPLOY)**

**EMPLOY I (0831)      Grade 9**

**EMPLOY II (0832)     Grade 10**

**EMPLOY III (0833)    Grade 11**

**EMPLOY IV (0834)    Grade 12**

**EMPLOY V (0835)     Grade 11 and 12 (optional)**

**Prerequisite: Any student who is receiving special education services and whose Individualized Educational Plan (IEP) indicates the appropriateness of the EMPLOY course offering.**

**EMPLOY V consists of work experience**

**Credit: 1 per course**

EMPLOY is intended to provide special education students with skills that will facilitate their entry into suitable occupations in accordance with their individual educational needs, aptitudes, and interests. Students must complete a minimum of 540 hours of supervised on-the-job training.

## **LEARNING STRATEGIES I (7897)**

**Grade: 9**

**Prerequisite: Any student who is receiving special education services through the LD program and whose Individualized Educational Plan (IEP) indicates the appropriateness of the Learning Strategies course offering**

**Credit: 1 per 150 hours of instruction**

The Learning Strategies class provides direct instruction and practice in specific academic, transitional, and social strategies. The curriculum is designed to provide strategies to students with specific learning disabilities so that they may experience success in high school. It is recommended that students take Learning Strategies in ninth grade, although it is available in Grades 9-12.

## **LEARNING STRATEGIES II (7898)**

**Grades: 10**

**Prerequisite: Any student who is receiving special education services through the LD program and whose Individualized Educational Plan (IEP) indicates the appropriateness of the Learning Strategies course offering**

**Credit: 1 per 150 hours of instruction**

The Learning Strategies class provides direct instruction and practice in specific academic, transitional, and social strategies. The curriculum is designed to provide strategies to students with specific learning disabilities so that they may experience success in high school. It is recommended that students take Learning Strategies I in ninth grade, although it is available in Grades 9-12.

## **SOCIAL SKILLS (7890)**

**Grades: 9-12**

**Prerequisite: Any student who is receiving special education services and whose Individualized Educational Plan (IEP) indicates the appropriateness of the Social Skills course offering**

**Credit: 1 (only one credit will be awarded during students' high school career)**

This course will provide students with direct instruction in specific social skills. The purpose of this course is to increase academic achievement through the teaching and remediation of social skills. When completed, students will be able to demonstrate appropriate behavior in changing environments, demonstrate effective communication skills, demonstrate positive relationships with others, project a positive self-image, and utilize social skills in the learning process.

**PERSONAL LIVING AND FINANCES (3120)****Grades: 10-12****Prerequisite: Teacher recommendation****Credit: 1 math credit for modified standard diploma**

Students may earn one mathematics credit for the Modified Standard Diploma by successfully completing a Personal Living and Finance course. The Personal Living and Finance course may not be used to satisfy the mathematics requirement for the Standard of Advanced Studies Diploma. The course addresses the need for students to have the skills to manage personal finances and to make sound financial decisions.

**LIFE SKILLS (080535)****Grades: 10-12****Prerequisite: Teacher recommendation****Credit: 1 credit**

Students will learn specific life skills through hands-on experience in laundry, cooking, appropriate dress, manners and self-advocacy.

# *OFF-SITE PROGRAMS*

## **AUTOMOTIVE TECHNOLOGY I (850799) (TECH PREP) (Hylton HS)**

**Grade: 11**

**Prerequisite: Foundations of Technology is recommended**

**Credits: 2**

**Students prepare for ASE Certification Exams**

**Application Required – see Counselor**

Automotive Technology I is designed to provide the student with entry-level occupational skills in auto mechanics. A laboratory environment similar to those found in the automotive industry is used to teach students the basic concepts of automobile operation. Students will perform tasks in automotive servicing, engine analysis, brakes, steering mechanisms, alignment procedures, and basic transmission operation.

## **AUTOMOTIVE TECHNOLOGY II (8507) (TECH PREP) (Hylton HS)**

**Grade: 12**

**Prerequisite: Automotive Technology I**

**Credits: 2**

**Students prepare for ASE Certification Exams**

Automotive Technology II is a double-period class relating to auto mechanics maintenance and repair careers. The student will develop job-entry skills in areas such as brakes, transmission, and front-end alignment. The student is expected to properly repair customers' cars in the laboratory environment using all diagnostic test equipment and safety procedures.

## **PRACTICAL NURSING A (8357) (Osborn Park HS)**

## **PRACTICAL NURSING B (8358) (Osborn Park HS)**

**Grade: 12-Adult (Maximum 25 students)**

**Prerequisite: None (Biology, Chemistry, and Algebra recommended)**

**Credits: 3**

**Prepares for Licensure Exam**

**Application Required – see Counselor**

Practical Nursing I introduces the student to personal and vocational relationships in nursing, structure and function of the human body, concepts in normal and therapeutic nutrition, and human behavior through the life span. Developmental skills in nursing arts and pharmacology, including patient care and administration of medications are fostered. An awareness of professional and ethical attitudes is emphasized throughout the course.

## **PRACTICAL NURSING II (8358) (Osborn Park HS)**

**Grade: Adult (Maximum 10 students)**

**Prerequisite: Practical Nursing I**

**Credit: 0**

**Prepares for Licensure Exam**

Practical Nursing II is an all-day, 36-week occupational preparation course offered to Practical Nursing I completers only. Classroom and clinical training are given in approved hospitals, licensed nursing homes, or home-care settings under the direction of a nurse educator. Instruction emphasizes administration of medicines, advanced and complex patient care, and practice with patients of all ages. In addition, students learn advanced anatomy, physiology, and human behavior as they relate to health and disease, including mental illness. Upon successful completion of the total program, students qualify to take the practical nurse licensing examination.

## **COSMETOLOGY I (8527) (Woodbridge HS)**

**Grade: 11**

**Prerequisite: None**

**Credits: 3**

**Prepares for Licensure Exam**

**Application Required – see Counselor**

Cosmetology I is the first year of a two-year program for the study of hair, skin, and nails and their related care. Students study and prepare in a clinical lab setting, using mannequins and live models for manipulative skill practice. The program emphasizes safety and sanitation, communication, and management skills. Related areas of study include psychology, ethics, and presentation of a professional image. The course is continued in Cosmetology II.

## **COSMETOLOGY II (8528) (Woodbridge HS)**

**Grade: 12**

**Prerequisite: Cosmetology I**

**Credits: 3**

**Students required to take Licensure Exam**

Cosmetology II is the second year of a two-year program that prepares students to sit for the Virginia State Board of Cosmetology licensing exam. Students will begin to shape hair, utilize color procedures, do more complex facial and skin treatments, analyze diseases and disorders, and permanent waving. Salon management and more detailed understanding of Virginia laws and how they pertain to the cosmetology profession are a standard part of the program. Students completing the sequential program are expected to take the State Board examination that is required for employment in the cosmetology.

**COLLISION REPAIR I (867699) (Tech Prep)**

**Grade: 10**

**Prerequisite: Foundations of Technology is recommended**

**Credit: 2**

**ADMISSION BY APPLICATION**

**COLLISION REPAIR II (867799)**

**Grade: 11**

**Prerequisite: Successful Completion of Collision Repair I**

**Credits: 2**

**COLLISION REPAIR III (867801)**

**Grade: 12**

**Prerequisite: Successful Completion of Collision Repair II**

**Credit: 2**

This is the first year of a three-year program of studies. Collision Repair is a two-period, two-credit class. The first year of the program will emphasize work ethics, shop safety, academic areas, shop manuals, career options and provide students with an introduction to welding. Students will gain experience restoring body parts for metal finishing with plastic filler and alignment of hoods, doors, and trunk lids; replacing window glass, and automobile frame alignment; masking a vehicle; and spray painting. During years two and three, students will receive additional instruction in welding, brazing and cutting metal components; replacing various parts; operating frame-straightening equipment; cost estimating; and the masking and spraying of auto bodies. During the third year of this program, students will have the opportunity to apply for internships in the Collision Repair industry. The internship will serve as the classroom setting for the third year of this program.

Potomac Senior High School's Collision Repair Program is NATEF certified. Students will be prepared for ASE Certification Exams in five areas: Structural Analysis and Damage Repair; Non-Structural Analysis and Damage Repair; Mechanical and Electrical Components; Plastics and Adhesives; and Painting and Refinishing.

**PRINCE WILLIAM COUNTY PUBLIC SCHOOLS  
STUDENT ACADEMIC/CAREER PLANNING CARD  
ACADEMIC PLANS**

Name \_\_\_\_\_  
Middle School \_\_\_\_\_  
High School \_\_\_\_\_

Diploma €22 credits – Standard €24 credits - Advanced

**Standard Diploma**

<u>Discipline Area</u>	<u>Stand. Unit</u>	<u>Ver. Unit</u>
English.....	4	2
Mathematics <sup>1</sup> .....	3	1
Lab.Science <sup>2</sup> .....	3	1
History & Social Sciences <sup>3</sup> .....	3	1
Health & PE .....	2	
Fine or Prac. Arts.....	1	
Electives <sup>4</sup> .....	6	
Student Selected Test.....		1
Total.....		6

<sup>1</sup> at least from: Alg. I, Geom., Alg. II or math higher than Alg. and Geometry  
<sup>2</sup> includes course from 2 different science disciplines: E.S., Bio., Chem., Phy.

<sup>3</sup> courses completed to satisfy this include:

US/VA Gov't. and one World Hist. Geography

<sup>4</sup> must include at least 2 sequential electives

**Advanced Studies Diploma**

<u>Discipline Area</u>	<u>Stand. Unit</u>	<u>Ver. Unit</u>
English.....	4	2
Mathematics <sup>1</sup> .....	4	2
Lab.Science <sup>2</sup> .....	4	2
History & Social Sciences <sup>3</sup> .....	4	2
Health & PE .....	2	
Foreign Language <sup>4</sup> .....	3	
Fine or Prac. Arts.....	1	
Electives.....	2	
Student Selected Test.....		1
Total.....		9

<sup>1</sup>at or above Alg. I including minimum of 3 courses

from among: Alg. I, Geom., Alg. II, or high math

<sup>2</sup>will include courses from at least 3 different science areas

from among.....E.S., Bio., Chem., Phy.

<sup>3</sup>will include US/VA Hist., US/VA Gov't and two

World Hist./Geog. courses

<sup>4</sup>three years of one lang., two years of two languages

Grade 7 School Yr.

Course Name	Stand. Unit	Verified Unit
English		
Math		

Grade 8 School Yr.

Course Name	Stand. Unit	Verified Unit
English		
Math		
Foreign Lang.		

Grade 9 School Yr.

Course Name	Stand. Unit	Verified Unit
English 9		
Math		
World History		
Science		
9 HPE		
Foreign Lang.		
Elective		

Grade 10 School Yr.

Course Name	Stand. Unit	Verified Unit
English 10		
Math		
Science		
10 HPE		
Foreign Lang.		
Elective		
Elective		

Grade 11 School Yr.

Course Name	Stand. Unit	Verified Unit
English 11		
Math		
US/VA History		
Science		
Elective		
Elective		
Elective		

Grade 12 School Yr.

Course Name	Stand. Unit	Verified Unit
English 12		
US/VA Gov't.		
Math		
Science		
Foreign Lang.		
Elective		
Elective		

**Eleventh Grade Research Paper**

incomplete, passed, proficient