



AVIANO HIGH SCHOOL

**COURSE
DESCRIPTION
BOOKLET**

2012-2013

Contents:

- Graduation requirements
- Honors Diploma Requirements
- Course descriptions
- Career Technical Endorsements

Dear Students and Parents,

Following are the graduation requirements, the list of possible course offerings at Aviano High School, and the professional technical studies certificate information for the 2012-2013 school year. Please pay particularly close attention to the graduation requirements.

All students in DODEA schools need to have a 6-year plan. This plan identifies graduation requirements and the specific courses you have taken and intend to take in order to fulfill those requirements. Every year the counselors assist students in updating their plans during course selection sessions in the English classes. Students then have the opportunity to share these with their parents. Parents, if you have not seen this plan nor discussed it with your student, feel free to contact your student's counselor to set up an appointment. Students, if you are not sure if you have one, please see your counselor.

Aviano High School offers courses to meet all levels of challenge. If you are a student who consistently scores above the 90th percentile in standardized testing, consider the Honors and AP offerings. If you are a student who finds math and language arts courses challenging and who scores below the 50th percentile in standardized testing, pay attention to the support courses offered in math and reading.

We hope you find this catalog helpful and informative. If you have any questions, please do not hesitate to contact us.

Debbie Lee

Debbie Lee

Grade 9

632-5917

Dee Oleson

Dee Oleson

Grades 10, 11, & 12

632-5619

Table of Contents

Graduation Requirements	4
Courses by Curricular Area	5
Course Descriptions listed alphabetically	6-24
Career/Technical Endorsements	25-30

Graduation Requirements

<u>Curricular Area</u>	<u>Credits Required</u>
Language Arts (English)	4
Social Studies	3
Mathematics	3
Science	3
Foreign Language	2
Fine Arts	1
Physical Education Personal Fitness, Activity and Nutrition and Lifetime Sports	1.5
Health	0.5
Career Technical ED	2
<u>Electives</u>	<u>6</u>
TOTAL	26

** Must have a cumulative GPA of 2.0 in order to graduate.

*****Honors Diploma** is available with a minimum of 4 AP courses and a cumulative 3.8 GPA.

- In the course descriptions, a “G” following the curricular area designation indicates that the course will satisfy graduation credit requirements for that curricular area.

Courses by Curricular Area

Language Arts	Language Arts 9, 10, 11, 12; Honors English 9, 10; AP English Language; AP English Literature and Composition
Social Studies	World History 9,10; Honors World History 9,10; United States History; AP US History; US Government; Economics; AP Psychology; Street Law; Sociology
Mathematics	Algebra I; Algebra II; Algebraic Modeling; Geometry; Discrete Mathematics; Mathematical Analysis/Pre-Calculus; AP Calculus AB; AP Statistics-DL
Science	Biology; Environmental Science; Chemistry; Physics Applications in the Community; Physics; Human Anatomy & Phys; AP Biology; AP Physics B-DL; Marine Biology - DL; AP Chemistry DL+
Foreign Language	Italian I, II, III, IV; Spanish I, II, III, IV; French II, III; AP German-DL; AP French-DL
Fine Arts	Fundamentals of Art; Studio Art; AP Studio Art 2D Design; Drama Theater; Humanities; Beginning Band; Intermediate Band; Advanced Band, Guitar I, II
Physical Education	PE/Personal Fitness, PE /Activity and Nutrition; PE/Lifetime Sports
Health	Health Ed
Career Technical ED:**	<p><i>BUSINESS: Accounting I, II; Word Processing Software Applications (Microsoft Word); Business & Personal Finances; Marketing & Entrepreneurship; Mgmt International Business; Business Law; Presentation Software Applications (PowerPoint); Spreadsheet Software Applications (Excel);</i></p> <p><i>TECHNOLOGY: Architectural Drawing; Applied Architectural Design/CAD; Engineering Drawing/CAD; Engineering Design and Development; Engineering Design and Tech I; Computer Animation; Computer Service and Support; Research Project Tech ; Gaming Technology I & II</i></p> <p><i>COMPUTERS: Advanced Computer Studies; AP Computer Science A & AB-DL; Business Networking; Digital Imaging; Digital Media; Java Programming I, II-DL; Digital Publishing; Visual Basic I, II-DL; Web Design; Home Networking; Computer App I</i></p> <p><i>AIR FORCE JROTC I, II, III, IV</i></p> <p><i>VIDEO COMMUNICATION I, II, III</i></p> <p><i>CAREER PRACTICUM I, II, III (Seniors ONLY);</i></p>
Electives	AVID 9, 10, 11, 12; AVID Tutor 11, 12; Yearbook Production 9, 10, 11, 12; Speech 9, 10, 11, 12; Reading Lab 9, 10, 11, 12; Algebra I Lab I; Math Lab (Alg II); Geometry Lab; Learning Strats; College Entrance Prep

**All PTS certificate programs are listed following course descriptions in the back of this booklet

Course Descriptions

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Accounting I Major Concepts/Content: Accounting I introduces students to accepted accounting principles and the complete basic accounting cycle, which includes financial statements for service and merchandising businesses. Additional topics covered are payroll, notes, depreciation, forms of ownership, and the importance of ethics.	Career/PTS - G	1	10-12
Accounting II Major Concepts/Content: Accounting II expands the accounting concepts learned in Accounting I. Students will be introduced to partnership and corporate accounting concepts, accounting procedures for manufacturing businesses, cost and managerial concepts, and analysis tools. Notes and depreciation will be studied in greater depth.	Career/PTS - G	1	11-12
Advanced Comp Studies Major Concepts/Content: Advanced computer studies is a one-semester course designed to teach students advanced programming concepts. Problem solving and program documentation will be emphasized. Students will write original computer programs. Students will choose from a variety of advanced programming languages to include, but not limited to, Java, SmallTalk, LISP, Scheme, Perl, Korn, CGI, JavaScript, PHP, and VBScript.	Computer/Career/PTS - G	0.5	11-12
Advanced Band Major Concepts/Content: The advanced band course is designed to acquaint students with advanced instrumental music skills. The content includes, but is not limited to, the following: the interpretation and analysis of musical scores; the application of musical nuances in playing from a score; independent performance of all major and minor scales; advanced rhythm patterns; performance as a soloist and in small and large group ensembles; a variety of music repertoire, including style, periods, forms, electronic music; intermediate to advanced level sight-reading exercises; and introduction to computer/synthesizer musical composition.	Fine Arts - G	1	9-12
Air Force JROTC I, II, III, IV Major Concepts/Content: The Air Force Junior ROTC course is designed to acquaint secondary students with elements of aerospace and the aerospace environment. 40% of the classroom hours cover Aerospace Science , i.e. the origins of flight, development of air power, military aerospace and contemporary aviation. Also included are the human requirements of flight, space environment, space programs, space technology and rocketry. Leadership is 40% of the program and develops basic leadership skills/life skills, and career paths. Emphasized are discipline, responsibility, leadership, followership, citizenship, customs and courtesies, time management, study habits and corps activities. The remaining 20% of the program consists of Wellness . This program provides a standardized but varied curriculum that offers substantial individual health improvements. Wellness includes CPR and First Aid certification, weekly physical fitness exercise classes and nutrition classes. Curriculum-in-action field trips are also included as well as a formal Military Ball, Dining-In and Awards Night. Many of the class hours relate directly to other school academic subject, with cadets presenting both written and oral reports.	Career/PTS - G	1	9-12
Algebra I Major Concepts/Content: This course may be the most common entry level course for students who have had a rich and varied middle level mathematics program. It expands upon basic algebraic concepts previously acquired and integrates those principles with everyday life. The processes of problem solving, reasoning, communication and making connections are emphasized. Students will use formulas, functions, and equations to describe and clarify relationships, and will use geometry to represent algebraic relationships. Students will learn how to write and translate expressions	Math - G	1	9-12

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
---------------------	------------------------	---------------	--------------

into mathematical forms, solve first and second degree equations, and use the concept of a function to model real-world phenomena.

Algebra I Lab I	ELECTIVE	1	9-12
<p>Major Concepts/Content: This class is designed to provide a developmental approach to the building of algebraic concepts, to expand upon basic algebraic concepts previously acquired, to integrate those principles with everyday life, and to assist all students in viewing algebra as a language of modeling the real world through problem solving. Learning will be through concrete activities and modeling, whenever possible, with less emphasis upon computational or symbol manipulating facility. Students will use formulas, functions, and equations to Describe and clarify relationships, and will utilize geometry to represent algebraic relationships. Emphasis will be upon recognizing connections between geometry and algebra as they occur in real-life situations.</p>			
Algebra II	Math - G	1	10-12
<p>Major Concepts/Content: This course engages students in advanced algebraic concepts through the study of functions of functions, polynomials, complex matrices, and sequences and series. Students will make connections by integrating algebra into geometry, data analysis, and into other curricular areas. Student reasoning will involve linear equations and inequalities, systems of linear equations, matrices and determinants, quadratic equations and relations, functions and graphs, powers, roots, and radicals, exponential and logarithmic functions, polynomials and polynomial functions, rational expressions and functions, sequences and series, probability and statistics, and circular trigonometric functions.</p>			
Algebraic Modeling	Math - G	1	9-12
<p>Major Concepts/Content: Algebraic Modeling will help students understand the connection between math and their daily lives. Students will explore Algebra 1 topics such as linear, quadratic, exponential and piecewise functions by modeling real world situations. Students will identify key characteristics, represent problems algebraically and graphically, determine lines/curves of best fit and make predictions. Concepts and solutions are presented in non-threatening, easy-to-understand language with numerous examples to illustrate ideas. Whether the student will go on to study early childhood education, graphic arts, automotive technologies, criminal justice or something else, the student will discover that the practical applications of mathematical modeling will continue to be useful well after they have finished this course.</p>			
AP Biology*	Laboratory Science - G	1	11-12
<p>The AP Biology course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. After showing themselves to be qualified on the AP Examination, some students, as college freshmen, are permitted to undertake upper-level course in biology or to register for courses for which biology is a prerequisite. Other students may have fulfilled a basic requirement for a laboratory-science course and be able to undertake other courses to pursue their majors.</p>			
AP Calculus AB* or DL	Math - G	1	12
<p>Major Concepts/Content: The concepts and content for AP Calculus course incorporate the syllabus of the College Board. Students are engaged in authentic applications involving limits and continuity, derivatives, integrals, transcendental functions, and infinite series. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. The standards develop the unifying themes of derivatives, integrals, limits, approximation, and applications and modeling. Graphing calculators are required for this course as mandated by the College Board. Students should be encouraged to talk about the mathematics of change in calculus, to use the language and symbols of calculus to communicate, and to discuss problems and methods of solutions.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
AP Calculus BC-DL*(See your Counselor) Math - G		1	12
AP Comp Sci A/AB-DL*	Computer/PTS - G	1	11-12
<p>Major Concepts/Content: The course description for the advanced placement courses published by College Boards is to be used for the above course. The Advanced Placement Program offers two computer science courses: Computer Science A and Computer Science AB. The content of Computer Science A is a subset of the content of Computer Science AB. Computer Science A emphasizes programming methodology with a concentration on problem solving and algorithm development and is meant to be the equivalent of a first-semester course in Computer Science. It also includes the study of data structures and abstraction, but these topics are not covered to the extent that they are covered in Computer Science AB. Computer Science AB includes all the topics of Computer Science A, as well as a more formal and in-depth study of algorithms, data structures, and abstraction. For example, binary trees are studied in Computer Science AB but not in Computer Science A.</p>			
AP Chemistry-DL*	Laboratory Science - G	1	11-12
<p>Major Concepts/Content: AP Chemistry is a college-level on line course which differs from a high school Chemistry course in terms of depth of coverage, the type of laboratory work and time commitments for study. The topics in AP Chemistry are detailed in the AP Chemistry course description, which is available on AP Central (http://apcentral.collegeboard.com).</p>			
AP English Language*	Language Arts - G	1	11-12
<p>An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing.</p>			
AP English Lit* or DL* (sp. cases)	Language Arts - G	1	11-12
<p>An AP English course in Literature and Composition should engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students should deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone.</p>			
AP French-DL*	Foreign Language-G	1	11-12
<p>Major Content/Concepts: AP French Language is equivalent to fifth and sixth semester college work (3rd year college) such as found in university level French Composition and Conversation courses. The 5 domains of learning (Communication, Cultures, Connections, Comparisons, and Communities) involve the skills of listening, speaking, reading, writing, and developing cultural awareness appropriate to this level of coursework. Students will gain strong proficiency and integrate their language skills. Authentic materials and resources are used along with the required text for AP French Language.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
AP German-DL*	Foreign Language-G	1	11-12
<p>AP German Language, emphasizing use of the language for active communication, has as its objective the development of the following competencies: Having a strong command of vocabulary and structure; Understanding spoken German in various conversational situations; Reading newspaper and magazine articles, contemporary fiction, and non-technical writings without the use of a dictionary; and Fluently and accurately expressing ideas orally and in writing.</p>			
AP Physics B-DL*	Laboratory Science - G	1	11-12
<p>The Physics B course provides a systematic introduction to the main principles of physics and emphasizes the development of problem-solving ability. It is assumed that the student is familiar with algebra and trigonometry; calculus is seldom used, although some theoretical developments may use basic concepts of calculus. In most colleges, this is a one-year terminal course and is not the usual preparation for more advanced physics and engineering courses. However, the B course provides a foundation in physics for students in the life sciences, pre-medicine, and some applied sciences, as well as other fields not directly related to science.</p>			
AP Psychology	Social Studies - G	1	11-12
<p>Major Content/Concepts: The course will begin by exploring the historical perspectives that combine to represent the eclectic field of psychology. Throughout the course, concepts will be explored using the research methods employed by psychologists to describe, explain, predict and modify behavior. Topics studied within this course will cover the range of theoretical perspectives and applications to the interpretation of personality, psychological disorders, and therapeutic approaches. Students will learn to evaluate information obtained from empirical research regarding topics such as the biological basis of behavior, learning, and memory and consciousness, development, and the social nature of human beings. As topics are covered, students will learn to identify biological, cognitive, social, and abnormal characteristics of human beings.</p>			
AP Statistics-DL*	Math - G	1	12
<p>Major Concepts/Content: The concepts and content for AP Statistics incorporate the syllabus of the College Board. The topics for AP Statistics are divided into four major themes: exploratory analysis, planning a study, probability, and statistical inference. Exploratory analysis of data makes use of graphical and numerical techniques to study patterns and departures from patterns. Data must be collected according to a well-developed plan if valid information on a conjecture is to be obtained. Statistical inference guides the selection of appropriate models.</p>			
AP Studio Art 2D Design	Fine Arts - G	1	10-12
<p>Major Content/Concepts: Students will explore the elements of art (color, value, line, shape, form, texture and space.) and the possibilities that artists use to express themselves. The principles of design (balance, contrast, proportion, pattern, rhythm, emphasis, unity, and variety) help guide artists in making decisions about how to organize the elements on an image plane in order to communicate content.</p>			
App Arch Design	Career/Computer/PTS - G Prereq	1	9-12
<p>Major Concepts/Content: Applied Architectural Design Students will become proficient with AutoDesk Revit. Students will work on two advanced projects where they will develop a design solution for a client. They will design projects to meet LEED (Leadership in Energy and Environmental Design) standards for green building certification.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
AP US History	Social Studies - G	1	12
Major Concepts/Content: The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials—their relevance to a given interpretive problem, reliability, and importance—and to weigh the evidence and interpretations presented in historical scholarship. An AP U.S. History course should thus develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format.			
Architectural Draw/CAD	Career/Computer/PTS- G	1	9-12
Major Concepts/Content: Architectural Drawing/CAD provides students an opportunity to work with design software that professional architects and interior designers use. Students will learn to use Auto Desk Revit which is a leading edge design tool that was used in designing “Freedom Towers” the new skyscraper to replace the twin towers in New York City. Design projects include designing a design studio, vacation home and a group design project. Vacation Home Project: Students will find a client and design a vacation home to meet the client’s needs and geographic location. They will need to develop an energy efficient design that fits the location and design style.			
AVID 9, 10, 11, 12	ELECTIVE	1	9-12
Major Concepts/Content: AVID (Advancement Via Individual Determination) is a language arts based curriculum with emphasis on the writing process and writing as a tool of learning. In addition to inquiry and collaboration, AVID also provides students with academic survival skills, i.e., time management, note taking, textbook reading, library research, test taking skills, and study skills. The Cornell note-taking system is taught and students are expected to use this system in all classes.			
Avid Tutor	ELECTIVE	1	11-12
Major Concepts/Content: The AVID Tutor program is designed to train students who excel in the academic areas and who have an interest in teaching to work in a collaborative setting with students enrolled in the AVID program. Tutors will undergo a training period in which they will learn to effectively use the three teaching methodologies used in AVID: writing as a tool for learning, the inquiry method, and collaborative grouping.			
Beginning Band	Fine Art—G	1	9-12
Major Concepts/Content: The beginning band course is designed to introduce students to the following: basic instrumental music techniques such as tone production, articulation, breath control, pitch discrimination; melodic and rhythmic concepts and patterns; practice skills and habits; solo, ensemble, and full group rehearsals; a variety of instrumental repertoire; opportunities for private instruction; experiences in performing; and sound practice habits.			
Biology	Laboratory Science - G	1	9-12
Major Concepts/Content: Biology is designed to provide students with an integrated approach to the study of living organisms, in addition to science as inquiry, science & technology, science & social perspectives, and the history & nature of science. The course integrates unifying science concepts and processes of systems, order & organization, evidence, models & explanation, change, consistency & equilibrium; and form & function. Scientific inquiry and understanding about inquiry are emphasized through practical implications and meaningful applications.			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Business Law	Career/PTS- G	1	11-12
Major Concepts/Content: Business Law provides the student with a survey of the American legal system. This course develops an understanding of law as applied to society and to the individual. Topics include the judicial system, contracts, warranties, guarantees, consumer protection, real property, landlord and tenant relationships, sole proprietorship, partnerships, and corporations.			
Business Networking	Professional Tech	1	9-12
Major Concepts/Content: This second course prepares students to become network engineers and prepares them for entrance into a technology career field or for further technology study. This course includes field experience in network problem solving. Successful completion of this course (and Cisco Networking 1) should qualify the student to pass the Cisco Certified Network Associate (CCNA) exam.			
Business and Personal Finances	Career/PTS- G	1	9-12
Major Concepts/Contents: This course is designed to make students aware of the financial challenges confronting them in daily living. Included will be such topics as how to make intelligent decisions in spending and saving; how to maintain good financial records; how to avoid financial disasters that result from the unwise use of credit and credit cards; information about banking services, insurance choices, and investment choices; and how to prepare tax returns.			
Career Practicum	Career/PTS- G	1-3	11-12
Major Concepts/Content: Career Practicum is designed to provide school-to-career experiences and training through a work practicum related to their career goal. Important aspects are to: Provide students an opportunity to acquire an understanding of actual employment settings utilizing their skills and aptitudes; apply problem solving skills in the work environment; and develop communication techniques.			
Chemistry	Laboratory Science - G	1	10-12
Major Concepts/Content: Chemistry is designed to help students understand the major principles of chemistry. Information is acquired through an integrated approach, incorporating advanced topics with science as inquiry, science & technology, science & social perspectives, and the history & nature of science. The course integrates unifying science concepts and processes of systems, order & organization, evidence, models & explanation, change, consistency & equilibrium; and form & function. Scientific inquiry and understanding about inquiry are emphasized through practical implications and meaningful applications. Topics students' study includes atomic theory and structure, chemical bonding, principles of chemical reactions, molecular structure, and how science and technology relate to chemistry.			
College Entrance Prep	ELECTIVE	0.5	10-12
Major Concepts/Content: The College Entrance Preparation course is designed to review and reinforce knowledge of content included on the Scholastic Aptitude test. In addition, the course should help students get better acquainted with the SAT, and in the process, alleviate some of the anxiety associated with taking this important test which could result in major implications for future educational pursuit.			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Computer Animation	Computer/Career/PTS - G	1	9-12
<p>Major Concepts/Content: Computer Animation is a project-based course designed to teach students how to create and edit computer animations. Students will use software to produce animation, audio, and video productions. Students will work with 3D Studio Max that is used primarily for video game development. Projects include designing an animated roller coaster and creating a news broadcast introduction.</p>			
Computer Applications I	Career/Computer/PTS—G	0.5	9-12
<p>Computer Applications I is designed to provide the student with the opportunity to expand technology knowledge and apply various technology applications. This course will equip the student with the necessary technology tools for personal use, employment and advanced education. The Cyber Café offers a full menu of application modules with word processing, database, spreadsheet, presentation software and information literacy skills.</p>			
Computer Service/Support	Career/Computer/PTS - G	1	9-12
<p>Major Concepts/Content: This program is intended to prepare students for computer support careers. Students enrolled in this course will learn how to perform shop maintenance, repair computers, install operating systems and software, acquire employment skills, as well as operate a service and support business. The course will provide students with concepts and skills necessary to achieve certification in PC Repair and Technical Support. This distributed learning model of instruction provides a blend of instruction with hands-on experiences that reflects current industry practices. During the course, students will identify and use hand tools, PC hardware and software, and will explore electronics theory. Installation, upgrade and repair will be explored in personal computer systems. A number of operating systems also will be reviewed. Students will train in a simulated work environment using a distributed learning instructional model.</p>			
Digital Imaging	Career/Computer/PTS— G	1	9-12
<p>Students will be able to demonstrate the following essential objectives: Use imaging software to demonstrate a thorough understanding of file formats; using the work area and work spaces; importing, exporting and saving; working with sections; creating and using layers; using masks and channels; managing color, adjusting images; drawing and editing; painting; retouching; using actions; working with type; proof putting to print; and outputting for the web. Analyze and evaluate solutions. Maintain files appropriately. Demonstrate an understanding of security and risks. Demonstrate basic knowledge of operating systems. Demonstrate information literacy skills. Understanding the concepts of ethical issues as related to information systems (e.q. privacy, property, and access).</p>			
Digital Media	Computers/Careers/PTS - G	1	9-12
<p>Major Concepts/Content: Digital Media (DM) provides students with the opportunity to develop professional-level skills in multimedia using Adobe Flash. This product-oriented course introduces the student to interactive multimedia presentations. Hands-on activities are used as students develop skills, master techniques, and prepare products for a client-based environment. Students learn to create professional digital media using animation, sound, and videos. 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, font selection, image editing, and digital cameras and images. Internet research and copyright laws are emphasized.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Digital Publishing	Career/Computer/PTS - G	1	9-12
<p>Major Instructional Activities: Instructional activities will be provided in a classroom or a lab utilizing individualized instruction and online resources will be provided in a lab environment. Simulations projects, appropriate support software, internet activities and alternative resources may be used. Students will primarily use Adobe In Design software while learning the following modules: Basic Graphic and Layout Designs; Graphic and Layout Design; Imaging Process and Creating Publications.</p>			
Discrete Mathematics	Math - G	1	10-12
<p>Major Concepts/Content: This discrete mathematics course by design shows a different view of mathematics than as seen in traditional mathematics courses. It is an applications driven course that is based upon the study of events that occur in small, or discrete, chunks. Discrete concepts are used extensively in business, industry, government, and the digital world. The major areas of study are counting and probability, graph theory, the mathematics of social choice (voting and fair division), and coding and encryption. Some of the questions investigated in discrete math are: What does a bar code mean? What is the most efficient way a delivery truck can visit ten destinations? Should you buy a lottery ticket?</p>			
Drama-Theater	Fine Arts - G	1	9-12
<p>Major Concepts/Content: The drama course is designed to give the students opportunity to experience drama as a significant and rewarding activity and to enable students to demonstrate knowledge of the historical background of drama. The content includes, but is not limited to, recognition of the different genres of drama (tragedy, comedy, farce, melodrama, musical) and the elements of playwriting; knowledge of the different historical periods of drama and acting; understanding of the importance of drama as a reflection of society; recognition of drama as a self-rewarding activity that involves the identification of the unique worth of the individual, the motivation behind human behavior; and the dynamics of interpersonal relationships.</p>			
Economics or DL	Social Studies Elective - G	0.5	10-12
<p>Major Concepts/Content: The economics course is a one-semester course designed to acquaint students with the major concepts in the study of economics. Students study how scarce resources are allocated among competing demands. The production, distribution, and accumulation of wealth are discussed and analyzed. Supply and demand, business organization, money and banking, the role of the federal government, and comparisons among economic systems are major topics of study. The course is offered to the secondary student, grades ten through twelve.</p>			
Engineer Design-Dev	Career/Computer/PTS - G Prereq	1	12
<p>Major Concepts/Content: The Engineering Design and Development course forms the capstone project for the Pre-Engineering curriculum. In this course, students will work in teams of two to four individuals to design and construct the solution to an original engineering problem. Each design problem is taken from a database of design problems offered to all DoDEA students enrolled in the course. As students work on their capstone project they will develop technical writing skills and use a variety of CAD, CAM, GIS, fabrication, manufacturing, and robotics technologies. Students will also maintain an engineering journal and develop a portfolio. This course is the culmination of the pre-engineering curriculum and is intended as an opportunity for students to utilize all the skills acquired through the pre-engineering strand of courses.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Engineering Design & Tech I Major Concepts/Content: The course Engineering Design & Technology I introduces students to the technology systems, tools, materials, and processes of industry through computer and teacher instruction and hands-on real-world activities. This course will provide students with a solid foundation in the following six fields.	Career/Computer/PTS - G	1	10-12
Engineer Draw-CAD Major Concepts/Content: Engineer Drawing/CAD Students will learn to use AutoDesk Inventor, which is used by 80-85% of colleges training designers. This course is strongly recommended for students aspiring to become engineers, architects, designers, CAD technicians and engineer technicians. Students will work on several design projects. With a partner you will design and build a mouse trap car. Students will also participate in the nationwide West Point Bridge Design Competition.	Career/Computer/PTS - G	1	9-12
Environmental Science Major Concepts/Content: Environmental Science is designed to be an elective course for students with a career or special interest and high motivation for an in-depth study of environmental science. Information is presented in an integrated approach with science as inquiry, science & technology, science & social perspectives, and the history & nature of science. The course integrates unifying science concepts and processes of systems, order & organization, evidence, models & explanation, change, consistency & equilibrium, and form & function. Scientific inquiry and understanding about inquiry are emphasized through practical implications and meaningful applications. Topics students study include, but are not limited to, the laws of matter and energy, ecosystem analysis, population dynamics, renewable and nonrenewable resources, human impact on the environment, and the relationships among economics, politics, ethics, and the environment.	Science Elective– G	1	9-12
French-II and III The foreign language courses are designed to teach students to pronounce and discriminate among the various vowel and consonant sounds and respond to and to imitate authentic patterns of intonation, rhythm, and pronunciation. Students learn to give simple oral and written information by using appropriate learned vocabulary, word order, and grammatical forms, and to read silently and aloud with comprehension. As students progress through the levels, fluency and independence in speaking and writing is emphasized.	Foreign Language - G	1	9-12
Fundamentals of Art Major Concepts/Content: The fundamentals of art course is designed as the basic entry course for the art program. The course provides instruction in the use of the elements of line, Color texture, shape, and space arrangement in works of art. Students learn how to compose a balanced, rhythmic, unified design through a series of assignments that use a variety of two- and three-dimensional art media. Course emphasis is placed on basic techniques of drawing, painting, printmaking, ceramics, and sculpture that can be used throughout life for communication, expression, and enjoyment.	Fine Arts - G	1	9-12
Gaming Technology I & II Major Concepts/Content: The course Gaming Technology I & II introduces students to the video game design industry. Students learn about computer	Career/Computer/PTS - G	1	9-12

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
---------------------	------------------------	---------------	--------------

modeling, animation and video game engines. Students will design two video games during the course of the year.

Geometry	Math - G	1	9-12
Major Concepts/Content: This course is designed to develop and promote student reasoning and problem solving involving geometric concepts and properties. Topics of study will include deductive reasoning using points, lines, and planes; segments, angles and triangles; quadrilaterals; polygons; and three-dimensional figures. Algebraic concepts are integrated with the geometric concepts throughout the course. Applications to real life situations are prevalent throughout the course.			
Geometry Lab I	ELECTIVE	1	9-12
Major Concepts/Content: This class will support and reinforce the basic geometric concepts taught in the Geometry course. Students will have additional opportunities to develop two- and three-dimensional reasoning skills, to understand coordinate and transformational geometry, trigonometric relationships, and to use geometric models to solve problems. They will build on their problem solving experiences to further develop their deductive and inductive reasoning skills, and methods of justifications. A variety of applications and some general problem-solving techniques will be used, including algebraic skills.			
Guitar I	Fine Art—GF	1	9-12
Major Concepts/Content: The guitar I course is designed to introduce students to the study of the guitar. The content includes, but is not limited to, staff notation and rhythm concepts, major and minor chord recognition, strumming and picking techniques, duple and triple meters, listening skills, guitar styles and forms, familiarity in the playing of all strings, variety of guitar repertoire, performance as soloists and in group ensembles, tuning and intonation, and guitar accompaniment techniques.			
Guitar II	Fine Art—GF	1	9-12
Major Concepts/Content: The guitar II course is designed to introduce students to the advanced study of the guitar. The content includes, but is not limited to, staff notation and rhythm concepts, major and minor chord recognition, strumming and picking techniques, duple and triple meters, listening skills, guitar styles and forms, familiarity in the playing of all strings, variety of guitar repertoire, performance as soloists and in group ensembles, tuning and intonation, guitar accompaniment techniques, major and minor scales, and position change.			
Health Ed	Health - G	0.5	9-12
Major Concepts/Content: This required course is designed to help high school students extend their conceptualization of knowledge, attitudes, and skills related to health issues learned in middle school. The focus is on students dealing with the world today and preparing for adult living based on a health and wellness ethic. Developmentally appropriate concepts of personal and community health (PCH), safety (SFTY), mental health (MH), alcohol, tobacco, and other drugs (ATOD), and family life and human sexuality (FLHS) are taught in this course. Students will utilize health education concepts when applying health information literacy skills, enhancing intrapersonal and interpersonal communications, analyzing internal and external influences, and applying thinking, self-management, and advocacy to promote wellness and reduce health risks.			
Home Networking	Career/Computer/PTS - G	1	9-12
Major Concepts/Content: This course prepares students to become network engineers and prepares them for entrance into a technology career field or			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
---------------------	------------------------	---------------	--------------

for further technology study. The program includes a complete range of basic and advanced networking concepts – from pulling cables through such complex concepts as subnet masking rules and strategies. Successful completion of this course should qualify the student to pass the Cisco Certified Entry Networking Technician (CCENT) examination.

Honors English 9	Language Arts - G	1	9
<p>This course is a demanding study of world literature as it ties in with world history to the 1500's. This course is taught in conjunction with Honors World History 9. The emphasis in the class will be on critical reading, analysis, and synthesis of information. Various forms of evaluation, such as in-depth written research projects and oral presentations to the class, will be used. This class is distinguished by a difference in the quality of work expected, not merely by an increase in quantity. Students taking this Honors class must also complete a summer reading and writing assignment.</p>			
Honors English 10	Language Arts - G	1	10
<p>This course is a demanding study of world literature as it ties in with world history from the 1500's through the present. This course is taught in conjunction with Honors World History 10. The emphasis in the class will be on critical reading, analysis, and synthesis of information. Various forms of evaluation, such as in-depth written research projects and oral presentations to the class, will be used. This class is distinguished by a difference in the quality of work expected, not merely by an increase in quantity. Students taking this Honors class must also complete a summer reading and writing assignment.</p>			
Honors World History 9	Social Studies Elective - G	1	9
<p>Major Concepts/Content: This course begins with the study of world history from the beginning of civilization to the 1500's. It is an interdisciplinary study that must be taken in conjunction with Honors English 10. The emphasis in the class is on the use of higher-level thinking skills that focus on critical reading, analysis, synthesis, and evaluation. In both form and subject, the materials selected for study will be a challenge to the most able student.</p>			
Honors World History 10	Social Studies Elective - G	1	10
<p>Major Concepts/Content: This course begins with the study of world history in the 1500's. It is an interdisciplinary study that must be taken in conjunction with Honors English 10. The emphasis in the class is on the use of higher-level thinking skills that focus on critical reading, analysis, synthesis, and evaluation. In both form and subject, the materials selected for study will be a challenge to the most able student.</p>			
Human Anatomy and Physiology	Science-G	1	10-12
<p>Major Concepts/Content: Human Anatomy & Physiology is designed to be an elective course for students with a career or special interest and high motivation for an in-depth study of human structures and functions. Information is presented in an integrated approach with science as inquiry, science & technology, science & social perspectives, and the history & nature of science. The course integrates biology and chemistry using unifying concepts and processes of systems, order & organization, evidence, models & explanation, change, consistency & equilibrium, and form & function. Scientific inquiry and understanding about inquiry are emphasized through practical and meaningful applications. Topics students study includes the muscular, nervous, digestive, respiratory, circulatory, excretory, endocrine, and reproductive systems, and genetics.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Humanities or DL	Fine Arts - G	1	9-12
Major Concepts/Content: The humanities course is designed to be an integrated study of history, literature, language, philosophy, the visual arts, theatre, dance, and music. Emphasis is placed on critical thinking, creativity, and the rights and responsibilities of the individual in a society. Students explore aspects of human behavior and human ideals.			
Intermediate Band	Fine Arts- G	1	9-12
Major Concepts/Content: The intermediate band course is designed to acquaint students with intermediate to advanced instrumental music skills which include, but will not be limited to, the following content: intermediate to advanced level sight-reading skills; discrimination of pitch; absolute essentials for playing in tune; intermediate to advanced rhythm concepts and patterns; techniques for achieving the essentials of unity, balance, and contrast in performing instrumental music; the study of all major and minor scales; the opportunity of performing a variety of good musical repertoire; and listening skills development.			
Italian I, II, III, IV	Foreign Language - G	1	9-12
The foreign language courses are designed to teach students to pronounce and discriminate among the various vowel and consonant sounds and respond to and to imitate authentic patterns of intonation, rhythm, and pronunciation. Students learn to give simple oral and written information by using appropriate learned vocabulary, word order, and grammatical forms, and to read silently and aloud with comprehension. The major linguistic principles and language skills covered in Italian include the following: usage of singular and plural nouns and interrogative, definite, indefinite, demonstrative and possessive adjectives; identifying and using the active voice in the indicative mood; identifying and using the imperative, the future tense, all forms of the past tense, progressives, and the subjunctive mood; identifying and using subject pronouns, direct object pronouns, indirect object pronouns, and the emphatic, reflexive, interrogative, demonstrative, and relative pronouns; identifying and using the most common prepositions; identifying and using comparison of adjectives; and identifying and using the formation of adverbs. As students progress through the levels, fluency and independence in speaking and writing is emphasized.			
Java I-DL	Computers/Careers/PTS - G Prereq	0.5	9-12
Major Concepts/Content: Programming in Java is a one-semester course designed to teach students Java programming concepts using a structured approach. Students will develop Java applications and applets. Problem solving and program documentation will be emphasized.			
Java II-DL	Computers/Careers/PTS - G Prereq	0.5	9-12
Major Concepts/Content: Programming in Java II is a one-semester course designed to teach students Java programming concepts using a structured approach. Students will develop Java applications and applets. Problem solving and program documentation will be emphasized.			
Language Arts 9	Language Arts - G	1	9
Major Concepts/Content: The language Arts 9 course is designed to strengthen students' skills in listening, speaking, writing, literature, and language. The content includes, but is not limited to, preparing oral reports in various content areas; using appropriate pitch, stress, juncture and rate in formal and informal speech; using the dictionary and the thesaurus to develop an increasingly comprehensive and precise vocabulary in both speaking and writing; locating resources (magazines, reference sources, films, and microfiche) by using indexes, catalogs, and the Reader's Guide; practicing the process of composition, including prewriting, drafting, revising, proofreading, and publishing; writing correspondence using appropriate forms (business, friendly);			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
			identifying with literary characters of the student's own age, and understanding how the characters' actions and emotions reflect the student's own actions and emotions; understanding that literature is written at different levels for different purposes and for different audiences; and reading self-selected books to help students learn to view reading as a useful and pleasurable activity.
Language Arts 10	Language Arts - G	1	10
			Major Concepts/Content: The Language Arts 10 course is designed to strengthen students' skills in listening, speaking, writing, literature, and language. The content includes, but is not limited to, outlining or mapping main ideas and details of information received aurally or through research; using vocabulary and sentence structure appropriate to the listener and the situation; understanding the importance of speech in influencing the course of events in a democratic society; using interviewing skills; using parliamentary procedure skills; using formal debating skills; refining test-taking skills to meet secondary and post-secondary demands; writing a paraphrase, summary, or precise; writing compositions for newspaper publication; writing a short paper using research techniques; selecting appropriate sources of information for the topic; understanding and explaining the type of conflict in a given literary selection (psychological, social, environmental); experiencing a wide range of literary forms (e.g., short stories, novels, non-fiction, poetry, drama); using the media center research facilities; and reading self-selected books to help students learn to view reading as a useful and pleasurable activity.
Language Arts 11	Language Arts - G	1	11
			Major Concepts/Content: The Language Arts 11 course is designed to strengthen students' skills in listening, speaking, writing, literature, and language. The content includes, but is not limited to, developing an increasingly comprehensive vocabulary in conversation and discussion; developing small group and large group discussion skills; inferring conclusions from a series of oral statements; respecting the presence of dialects and regional variations in speech; writing essays responding to social, political, and literary concepts; writing resumes; writing compositions of more than one paragraph using narration, exposition, and/ or description; developing individual criteria for the aesthetic appreciation of literature; recognizing and understanding the use of literary and stylistic devices; dramatizing literature; experiencing a wide range of literary works written in the United States by writers from the major ethnic groups in the U.S. population, including both classic and modern works; using the media center research facilities; and reading self-selected books to help students learn to view reading as a useful and pleasurable activity.
Language Arts 12	Language Arts - G	1	12
			Major Concepts/Content: The Language Arts 12 course is designed to strengthen students' skills in listening, speaking, writing, literature, and language. The content includes, but is not limited to, recognizing how continued development of communication skills can enhance one's future career and leisure activities; using communication skills in preparing for career choices; using the research skills necessary to meet the demands of post-secondary classes; using computer technology, where hardware is available, as an aid in writing compositions; writing in a clear and personal style; responding to literary masterpieces which are the common heritage of all people; engaging in perceptive reading and critical analysis of English and world literature; engaging in discussions of philosophical questions as revealed in literary works; and using the media center research facilities.
Learning Strategies	ELECTIVE	1	9-12
			Major Concepts/Content: The learning strategies course is designed to introduce special education students to concepts that are necessary for them to function in a regular classroom environment. The content includes, but is not limited to, the following concepts: time management, decision-making strategies, following directions, time-on-task behaviors, use of visual aids, organization of work site, organization of information, textbook usage strategies, note taking, test-taking strategies, dictionary reference skills and researching and locating information.

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Management International Business	Career/PTS- G	1	9-12
<p>Major Concepts/Content: This course provides an overview of business as well as the social and economic environments affecting business. Basic principles of organization and management as well as entrepreneurship and management skills and techniques are covered. Units of instructions include economics, finance, marketing, human resources, and global competitiveness. International Business introduces students to the basic concepts of world trade, the different world markets, and the methods used to import and export goods. Students are taught to think in terms of the different legal, cultural, economic, and political environments. The course will include workplace skills such as time management, money management, human resources management, listening skills, speaking skills, and accessing/ evaluating electronic resources.</p>			
Marine Biology—DL	Laboratory Science - G	1	10-12
<p>Major Concepts/Content: Marine Biology is designed to be an elective, introductory course to the identification and classification of organisms most common to the region in which the course is offered. Information is presented in an integrated approach with science as inquiry, science & technology, science & social perspectives, and the history & nature of science. The course integrates unifying science concepts and processes of systems, order & organization, evidence, models & explanation, change, consistency & equilibrium, and form & function. Scientific inquiry and understanding about inquiry are emphasized through practical implications and meaningful applications. Topics students study include ecological concepts of the sandy beach, rocky shore and benthic communities, seaweeds, plank tonic forms, plankton and their relationship to marine life cycles, nekton, benthos, marine bacteriology, marine biological resources, and marine pollution. Additional special topics may be selected for study.</p>			
Marketing and Entrepreneurship	Careers/PTS- G	1	11-12
<p>Major Concepts/Content: This course enables students to gain a basic understanding of marketing principles, techniques, and career opportunities. Instruction will include the relationship of products, prices, promotions to the marketing of goods and services to consumers. Ethics and social responsibilities of free enterprise will be included. Entrepreneurship focuses on recognizing a business opportunity, starting a business based on the recognized opportunity, and operating and maintaining that business. This course includes planning and strategy concepts, financial and organizational considerations, accounting and financial controls, and other components of business operation. The course will include workplace skills such as time management, money management, materials management, human resources management, facilities management, teamwork, decision-making, problem solving, negotiations, work ethics, and creative thinking.</p>			
Math Analysis/Pre-Calculus	Math - G	1	11-12
<p>Major Concepts/Content: This course will involve students in units and topics of study of operations with functions and equations, circular functions, vectors, applications of matrices, complex and polar coordinates, recursion, advanced proof ideas, rates and areas, statistical interference, algebra and algorithms. Problem solving in real world applications involving these units of study will be the beginning and focal points of lessons. Connections will be made of graphs with equations with real world situations. Reasoning in trigonometry, probability, discrete math, mathematical structure, and the conceptual underpinnings of calculus is a major emphasis in this course.</p>			
Math Lab (Alg II)	ELECTIVE	1	10-12
<p>This class will support and reinforce upper level mathematics courses such as Algebra II. Students will have additional opportunities to build on their problem solving experiences to further develop their reasoning skills, and develop methods of justifications. A variety of applications and some general problem-solving techniques will be used.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
PE-Activity and Nutrition	PE - G	0.5	9-12
<p>Major Concepts/Content: This one semester physical activity and nutrition course is required for graduation. This course provides a variety of opportunities for students to experience alternative, non-competitive physical activities. It is designed to enable students in grades nine through twelve to develop the movement skills and conceptual knowledge necessary to implement a personal physical activity and nutrition plan. Students participate in non-competitive physical activity and meal planning with pre and post physical activity and nutrition assessments.</p>			
PE-Lifetime Sports	PE - G	0.5	9-12
<p>Major Concepts/Content: This semester course, which is required for graduation, is designed to enable students in grades nine through twelve to develop the movement skills, conceptual knowledge, and attitudes for enjoyable sports participation throughout life. The focus is on teaching and improving the specialized motor skills and tactical knowledge unique to a variety of selected lifetime sports activities.</p>			
PE-Personal Fitness	PE - G	0.5	9-12
<p>Major Concepts/Content: This semester course, which is required for graduation, is designed to enable students in grades nine through twelve to develop the movement skills and conceptual knowledge and attitudes to make the personal physical fitness decisions of adolescent. Developmentally appropriate concepts of movement, physical fitness, and personal and social development are included in this course. Students apply appropriate information and problem solving that will help them achieve an individual, optimal level of fitness and help them stay fit for a lifetime. The course focuses on why fitness is important, what an individual's exercise and activity needs are and how to assess them, and how to exercise safely.</p>			
Physics	Laboratory Science - G Prereq Algebra II	1	10-12
<p>Major Concepts/Content: Physics presents basic concepts of physics in relation to world experiences. Information is presented in an integrated approach, linking physics with technology, social perspectives, and the history and nature of science. Physics is designed to provide an understanding of the physical laws fundamental to all sciences. Fundamental laws of mechanics are introduced, along with measurement and problem-solving techniques. Other topics included are wave theory, heat, sound, light, magnetism, electricity, atomic structure, nuclear reactions, and high energy physics.</p>			
Physics Apps in Comm	Laboratory Science – G	1	9-12
<p>Major Concepts/Content: Introduction to Physics presents concepts of physics in relation to world experiences. Information is presented in an integrated approach, linking physics with technology, social perspectives, and the history and nature of science. The course presents a thematic approach to physics using explorations of topics. Kinematics and dynamics are introduced by studying the physics of sports and transportation systems. Communication and information technologies are used to examine wave theory, light, and sound. Electrical and thermal energy topics are studied within the context of the home, as well as on a global scale. Applications of physics to health and medicine provide opportunities to study x-rays, CT scans, and ultrasound. Scientific predictions, such as those associated with radioactive decay, Newton's first two laws, the Law of Universal Gravitation, and special relativity, are contrasted with non-scientific views in order to highlight the characteristics of good science.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Presentation Software Apps Major Concepts/Content: Presentations Software Applications provides students with the opportunity to develop professional level skills in presentations software. Microsoft PowerPoint Certification Course	Career/Computer/PTS - G	0.5	9-12
Reading Lab 9, 10, 11, 12 Major Concept/Content: Improve reading achievement for students not reading at grade level through the use of a whole group instructional model with small group rotations.	ELECTIVE	1	9-12
Sociology Major Concepts/Content: Students study human social behavior from a group perspective, including recurring patterns of attitudes and actions and how these patterns vary across time, among cultures and in social groups. Students examine society, group behavior and social structures, as well as the impact of cultural change on society, through research methods using scientific inquiry.	Social Studies - G	0.5	10-12
Spanish I, II, III, IV The foreign language courses are designed to teach students to pronounce and discriminate among the various vowel and consonant sounds and respond to and to imitate authentic patterns of intonation, rhythm, and pronunciation. Students learn to give simple oral and written information by using appropriate learned vocabulary, word order, and grammatical forms, and to read silently and aloud with comprehension. The major linguistic principles and language skills covered in Spanish include the following: usage of singular and plural nouns and interrogative, definite, indefinite, demonstrative and possessive adjectives; identifying and using the active voice in the indicative mood; identifying and using the imperative, the future tense, all forms of the past tense, progressives, and the subjunctive mood; identifying and using subject pronouns, direct object pronouns, indirect object pronouns, and the emphatic, reflexive, interrogative, demonstrative, and relative pronouns; identifying and using the most common prepositions; identifying and using comparison of adjectives; and identifying and using the formation of adverbs. As students progress through the levels, fluency and independence in speaking and writing is emphasized.	Foreign Language - G	1	9-12
Speech Major Concepts/Content: The speech course is designed to Prepare students to create speeches that reflect careful thought in planning, organization, and delivery. The content includes, but is not limited to, identifying the purpose and audience for the speech; selecting the general topic and refining to a specific topic; making a statement of the thesis; selecting appropriate resources and information; outlining; creating a bibliography; selecting main points and supporting information; preparing the appropriate visual aids; modifying information for a particular audience; writing introductions and conclusions; using appropriate delivery techniques; evaluating delivery, content, and pattern of organization using specified guidelines; delivering oral or written critiques; and evaluating a speech according to established criteria. When the school elects to offer the course for 36 weeks, the second semester will focus primarily on debate. Content includes, but is not limited to, learning to appreciate the value of debating and the skills needed for it; using proper debating technique, including three types of formal debate -Lincoln-Douglas, formal college debating, and formal debating with cross-examination; writing and delivering constructive speeches, rebuttals, and cross-examinations; and researching a topic thoroughly.	ELECTIVE	1	10-12

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
Spreadsheet Software Applications	Computer/Career/PTS	0.5	9-12
<p>Major Concepts/Content: Spreadsheet Software Applications provides students with the opportunity to develop professional level skills in spreadsheet software. of the selected application, students will be able to demonstrate the following essential objectives: Use spreadsheet software to demonstrate a thorough understanding of working with cells and cell data, managing workbooks, formatting and printing worksheets, modifying workbooks, creating and revising formulas, creating and modifying graphics, and workgroup collaboration; Analyze and evaluate solutions; Maintain files appropriately; Demonstrate an understanding of security and risks; Demonstrate basic knowledge of operating systems; Demonstrate information literacy skills; and Understand the concepts of ethical issues as related to information systems (e.g. privacy, property, and access). EXCEL</p>			
Street Law	Social Studies Elective - G	0.5	9-12
<p>Major Concepts/Content: The street law course is an elective one-semester or yearlong course designed to provide students with knowledge about law that is of practical use in their everyday lives. Students will learn how every purchase, lease, contract, marriage, divorce, crime, or traffic violation places them face-to-face with the law. Depending on the length of the course, topics will include an introduction to law and the legal system, criminal law, torts, consumer law, family law, housing, and individual rights and responsibilities. Students will study some of the current issues and controversies relating to the law and legal system. Students will learn the different methods of solving legal problems, including negotiation, mediation, and the trial process. An effort will be made to make the course relevant to students in DoDEA schools by including special lessons that compare American and the host nation's law and instruct students in the basics of the Code of Military Justice.</p>			
Studio Art	Fine Arts - G Prereq Fundamentals	1	9-12
<p>Major Concepts/Content: The studio art course is designed either as units of study in various media, or as an individualized course for advanced students. Students who would like to develop skill in several media would benefit from this course. Students can concentrate on selected media by choosing activities from a wide range of options such as drawing, watercolor painting, acrylic painting, oil painting, sculpture, ceramics, commercial art, creative crafts, lettering, printmaking, and mixed media.</p>			
US Government	Government - G	0.5	12
<p>Major Concepts/Content: The United States government course is a required one semester course designed to provide students with essential knowledge, skills, and attitudes related to the nation's government and its historical development. The students review the purpose and function of government that they studied in eighth and eleventh grade. Major emphasis is on the structure of the federal government, political responsibility and participation, and state and local government. Some attention is given to economic systems and alternative political systems. Comparison with the host nation's government is encouraged as a part of the program.</p>			
US History	US History - G	1	11-12
<p>Major Concepts/Content: The United States history course at the eleventh grade level is designed to be a required one-year course, with emphasis on our nation's history from Reconstruction to the present. Both basic and advanced social studies skills receive emphasis. This course builds on the eighth grade U.S. history course that concentrated on the pre-Columbian period to reconstruction. The first quarter is used to review, reinforce, and expand the student's knowledge of pre-civil War United States. The remaining quarters concentrate on post-Reconstruction to the present, influences of and relations with the host nation during these periods are explored as part of the course.</p>			
VB Program I-DL	Computer/PTS - G Prereq	0.5	9-12
<p>Major Concepts/Content: Programming in Visual BASIC I is a one-semester course that will use the Visual BASIC Language. The emphasis of this course is to write computer programs to solve complex problems.</p>			

<i>Course Title</i>	<i>Curricular Area</i>	<i>Credit</i>	<i>Grade</i>
VB Program II-DL Major Concepts/Content: Programming in Visual BASIC II is a one-semester course designed to be a continuation of Visual BASIC I. The emphasis of this course is to write computer programs to solve complex problems.	Computer/PTS - G Prereq	0.5	9-12
Video Comm I Major Concepts/Content: The Video Communications I course for students in grades 9 through 12 is designed to introduce students to the concepts and equipment related to video production. Through a hands-on, project oriented approach, students will apply knowledge on filming, composition, linear/non-linear insert editing, lighting, storyboarding, audio and computer graphics/effects in order to communicate effectively using the video.	Career/Computer/PTS - G	1	9-12
Video Comm II Major Concepts/Content: The Video Communication II course expands on the student's application of skills developed in the first course. Students will use the project-oriented approach to refine their video production techniques while exploring concepts related to, but not limited to, studio production, on-site editing, video switching, lighting, scriptwriting, computer graphics, interview techniques, and computer based digital video processing.	Career/Computer/PTS - G	1	9-12
Video Comm III Major Concepts/Content: The Video Communications Seminar course will expand on the student's ability to apply concepts and skills learned in the first two courses. Students will continue to refine their video production skills while completing video communication projects at a quality level consistent with post secondary programs or entry level in the career field. Students will construct studio and/or on-site editing situations and assist others with the application of video communication concepts. (Aviano News)	Career/Computer/PTS - G	1	9-12
Web Design Major Concepts/Content: In Web Design, students will design, implement and manage a website. This is a hands-on laboratory course designed to teach students the concepts, skills and processes involved in website development and management. Major Instructional Activities: Students will evaluate a variety of existing website for content, design and functionality. Students will work collaboratively to design, construct and maintain an interactive website based on a single theme or project. Students will use online learning services to access additional resources.	Career/Computer/PTS - G	0.5	9-12
World History Major Concepts/Content: The world history course is designed to build on the content in the seventh and ninth grade geographical and cultural studies by studying the historical development of these cultures. The course continues the chronological study of ancient world civilizations begun in grade six. After an overview of the Early Ages, the course emphasizes the period from the Middle Ages to the contemporary world. Using the multi-disciplinary approach, world history is a balanced program, not just a history of Western Europe. Attention is given to Europe, Asia, Africa, North and South America. The host nation's history and culture are used for comparison.	Social Studies Elective - G	1	9-12
WordProcessing Software Apps Major Concepts/Content: Word Processing Software Applications provides students with the opportunity to develop professional level skills in word processing software. Microsoft Word Certification Course.	Career/Computer/PTS - G	0.5	9-12

*Career Technical
Endorsement
Programs*

STEM (Science, Technology, Engineering and Mathematics) Career Technical Studies Endorsements

Aviano High School offers certificates in the following programs. Students must complete four (4) Carnegie units (credits) in each pathway. Please refer to the list of required and recommended courses for each certificate on the following pages. ***Only required and recommended courses count towards the certification credits. Related courses do not count towards certification.***

Architecture & Construction

- Design/Pre-Construction

Arts, A/V Technology & Communications

- Audio & Video Technology & Film
- Journalism and Broadcasting

Business, Management & Administration

- Business Financial Management & Accounting
- Management
- Administration and Information Support

Information Technology

- Information Support and Services
- Interactive Media
- Programming/Software Engineering
- Network Systems

Manufacturing

- Manufacturing Production Process Development

Science, Technology, Engineering & Math

- Engineering & Technology

Government and Public Administration

- National Security (JROTC)

Italics denotes that class is not offered at AHS

Cluster: Architecture & Construction
Pathway: Design/Pre-Construction

<u>Required Courses</u>	<u>Potential Credit</u>
Applied Architectural Design/CAD	1
Architectural Drawing	1
<u>Recommended Courses</u>	
Principles of Engineering	.5
Engineering Design/Development	1
Computer Animation	1
Math Analysis	1
Physics	1
Career Practicum (Pathway related)	1

Cluster: Arts, A/V Technology & Communication
Pathway: Audio & Video Technology & Film

<u>Required Courses</u>	<u>Potential Credit</u>
Video Communications I	1
Video Communications II	1
<u>Recommended Courses</u>	
Video Communications III	1
Digital Media	1
Career Practicum (Pathway Related)	1
Tech Leadership Community	1

Cluster: Arts, A/V Technology & Communication
Pathway: Journalism & Broadcasting

<u>Required Courses</u>	<u>Potential Credit</u>
Speech or Journalism I	1
Video Communications I	1
<u>Recommended Courses</u>	
Video Communications II	1
Video Communications III	1
Drama—Theater	1
Journalism I	1
Speech	1
Word Processing Software Applications	.5
Career Practicum (Pathway Related)	1

Cluster: Business, Management & Administration
Pathway: Business Financial Management & Accounting

<u>Required Courses</u>	<u>Potential Credit</u>
Accounting I	1
Accounting II	1
<u>Recommended Courses</u>	
Mgmt International Business	1
Business Law	1
Word Processing Software Applications	.5
Presentations Software Applications	.5
Spreadsheet Software Applications	.5-1
Career Practicum (Pathway Related)	1
Database Software Applications	1

Cluster: Business, Management & Administration

Pathway: Management

<u>Required Courses</u>	<u>Potential Credit</u>
Mgmt International Business	1
Marketing and Entrepreneurship	.5
<u>Recommended Courses</u>	
Accounting I	1
Database Software Applications	1
Spreadsheet Software Applications	1
Business Law	.5-1
Digital Publishing	1
Career Practicum (Pathway Related)	1
Marketing & Entrepreneurship (Continuation)	.5

Cluster: Manufacturing

Pathway: Manufacturing Production Process Development

<u>Required Courses</u>	<u>Potential Credit</u>
Engineering Design and Technology I	1
<u>Recommended Courses</u>	
Engineering Design and Technology II	.5-1
Engineering Drawing/CAD	1
Engineering Design/Development	1
Principles of Engineering	.5
Computer Animation	1
Math Analysis	1
Physics	1
Digital Electronics I	.5
Digital Electronic II	.5
Career Practicum (Pathway related)	1

Cluster: Business, Management & Administration

Pathway: Administration and Information Support

<u>Required Courses</u>	<u>Potential Credit</u>
Word Processing Software Applications	.5
Spreadsheet Software Applications	.5
Presentations Software Applications	.5-1
<u>Recommended Courses</u>	
Database Software Applications	1
Accounting I	1
Mgmt International Business	1
Web Design	.5-1
Digital Publishing	1
Digital Imaging	1
Spreadsheet Software Applications	.5-1
Career Practicum (Pathway Related)	1

Cluster: Science, Technology, Engineering & Mathematics

Pathway: Engineering & Technology

<u>Required Courses</u>	<u>Potential Credit</u>
Engineering Drawing/CAD	1
<u>Recommended Courses</u>	
Digital Electronics I or II	.5
Engineering Design/Development	1
Principles of Engineering	.5
Applied Architectural Design/CAD	1
Computer Animation	1
Java I & II DL	.5-1
Visual Basic Programming I & II	.5-1
AP Computer Science A or AB DL	1
Engineering Design & Tech I and II	1-2
Advanced Computer Studies	.5
Math Analysis	1
Physics	1
Career Practicum (Pathway Related)	1
Gaming Technology I & II	.5-1
Home Networking	1
Business Networking	1

Cluster: Information Technology
Pathway: Information Support and Services

Required Courses	Potential Credit
Computer Services & Support	1
Java I / Distance Learning (DL) <u>or</u> Visual BASIC Programming I - Distance Learning (DL) <u>or</u> Digital Electronics I	.5
<u>Recommended Courses</u>	
Principles of Engineering	.5
Digital Electronics I or II	.5-1
Visual BASIC Programming I & II DL	.5
Java Programming I & II DL	.5
Word Processing Software Applications	.5
Presentations Software Applications	.5
Spreadsheet Software Applications	1
Web Design	.5
AP Computer Science A or AB DL	.5-1
Home Networking	1
Database Software Applications	1
Career Practicum (Pathway Related)	1
Gaming Technology I & II	.5-1

Cluster: Information Technology
Pathway: Interactive Media

Required Courses	Potential Credit
Digital Media	.5-1
Web Design	.5-1
Digital Publishing	.5-1
<u>Recommended Courses</u>	
Computer Animation	1
Journalism I	1
Video Communications III	1
Web Design	.5
Yearbook Production	1
Fundamentals of Art	1
Digital Imaging	1
Career Practicum (Pathway Related)	1
Gaming Technology I & II	.5-1

Cluster: Information Technology
Pathway: Programming/Software Engineering

Required Courses	Potential Credit
One full year of one of the following programming languages and one semester of another language:	
Java I & II /DL <u>or</u> Visual BASIC Programming I & II /DL <u>or</u> AP Computer Science A or AB DL <u>or</u>	1.5 1.5 1.5
One full year of one of the following programming languages and one semester of another language:	
Java I or II /DL Visual BASIC Programming I or II /DL Gaming Technology I & II	.5 .5 1
<u>Recommended Courses</u>	
Visual BASIC Programming I & II DL Java Programming I & II DL AP Computer Science A or AB DL Web Design Algebra II Career Practicum (Pathway Related)	.5-1 .5-1 1 .5 1 1

Cluster: Information Technology
Pathway: Network Systems

Required Courses	Potential Credit
Home Networking Business Networking	1 1
<u>Recommended Courses</u>	
Computer Services & Support Digital Electronics I or II Visual BASIC Programming I & II DL Java Programming I & II DL AP Computer Science A or AB DL Algebra II Career Practicum (Pathway Related)	1 .5-1 .5 .5 1 1 1

Cluster: Government and Public Administration
Pathway: National Security (JROTC)

<u>Required Courses</u>	<u>Potential Credit</u>
JROTC I	1
JROTC II	1
JROTC III	1
<u>Recommended Courses</u>	
JROTC IV	1
Psychology	.5
Sociology	.5
Speech	1
Street Law	.5
Career Practicum (Pathway Related)	1