

HS Course Descriptions 2009-2010

ART

Drawing 1

This semester class will give the foundation for all of the learning experiences in the studio arts. We will focus on the principals and elements of design. As the students draw and learn different drawing terms and techniques they will also learn about the history of the arts, the artists, the time periods, and the biblical significance of each artist's work.

Open to grades 9-12, \$20 course fee and 18X24 sketch pad

Drawing 2

This semester class students will learn advanced professional drawing techniques and about the artists who perfected them. *Professional college-ready portfolio work will be the goal.*

Pre-requisite Drawing 1, Open to grades 9-12, \$20 course fee and 18X24 sketch pad

Painting 1

This semester class will expose students to the incredible artwork of the 20th century. Students will learn the different painting terms and techniques. Students will learn about the major artists of the time period, and then be given an opportunity to create paintings in the style of that artist. Students will also learn about the biblical significance of each artist's work.

Pre-requisite Drawing 1, Open to grades 9-12, \$30 course fee

Ceramics 1

This semester class students learn the important terminology, techniques, artists, and biblical historical significance of the work. Ancient Mesopotamian, Sumerian, and Babylonian cultures will be studied. Students will be given the opportunity to work on a potter's wheel.

Prerequisite Drawing 1, Open to grades 10-12, \$50 course fee

Advanced Ceramics

This semester class will inspire students to go beyond pottery. Students will be shown how to create sculpture in the round, and other amazing creations from all over the world. All work relates to significant artists and time periods.

Professional college-ready portfolio work will be the goal.

Pre-requisite Drawing 1, Ceramics 1, Open to grades 10-12, \$50 course fee

Advanced Placement Honors Art

This semester class will allow honors art students the opportunity to take their favorite art subject to the next level. Students will be allowed choose from any of the curriculum listed and create portfolio level work. College level projects will be worked on and completed within the semester. If approved by the administration, the student work will be displayed on school grounds. *Professional college-ready portfolio work will be the goal.* Upon Instructor Recommendation only, Fee based on projects

Digital Photography

This semester class will learn about the amazing history of photography, and then apply that new knowledge to taking their first artistic photographs. Students will apply the principals and elements of design in every picture. Digital tools will be learned and applied to each photograph.

Pre-requisite Drawing 1, Personal digital camera with memory card, with a suggested SD card size of one gig. Open to grades 11-12, no course fee (Color lasers of student work may require a small fee).

BIBLE

Bible 9

Freshman Bible is split into boys and girls. The girls spend a semester on learning the basics of Christianity and how to share their faith. The other semester is then spent studying the women of the Bible. The boys study I Corinthians one semester and then do a book study of young men of character. Students will be shown how the sixty-six books of the Bible fit together and how the Word of God can be trusted and applied to daily life. Weekly Scripture memorization is a key component to this course, as well, as completing Christian Service hours. Students can either use KJV or NIV.

Open to grade 9.

Bible 10

Sophomore Bible is a survey course providing an overview of the Old and New Testaments. Students will be shown how the sixty-six books of the Bible fit together and how the Word of God can be trusted and applied to daily life.

Weekly Scripture memorization and Christian Service are key components to this course. Students can either use KJV or NIV. Open to grade 10.

HS Course Descriptions 2009-2010

Bible 11

Students in Junior Bible will spend one semester studying Biblical Interpretation and one semester studying Christian theology. Both semester courses will focus on practical applications of the Scriptures. Weekly Scripture memorization is a key component to this course, as well, as completing Christian Service hours. Students can either use KJV or NIV. Open to grade 11.

Bible 12

Students in Senior Bible will spend one semester studying how to build a Biblical Worldview and one semester focusing on the Biblical teachings of family. Weekly Scripture memorization is a key component to this course, as well, as completing Christian Service hours. Students can either use KJV or NIV. Open to grade 12.

ELECTIVES

Co-operative Education

The student will be placed in a work situation within the school setting. He/she will learn a variety of skills depending on the work situation. The student works directly with a supervising teacher and is responsible to him or her. The student's grade is determined each quarter by an evaluation by the teacher.

Typical activities include the following: correcting students' work, helping students on an individual basis, leading the class in an activity, preparing bulletin boards, organizing materials, working independently to show self-motivation, teaching a task, and typing work materials for the teacher. Co-ops may also be assigned to the office, library, and custodial staff. Open to grade 11, 12. (Credit: .5)

Intro to Psychology

This year long course will be taught from a Christian perspective, giving the student a historical overview of notable psychologists and their theories. It will also introduce the student to the basic pathology of psychological theories. We will examine such areas as sensation and perception, emotion, motivation, learning, memory, intelligence, and child psychology. Open to grades 11,12.

Peer Tutoring

Students will learn to tutor, and will work daily with younger students in Focus. Open to grades 11,12.

Yearbook

The ACS yearbook is produced by this class. Students design, plan and prepare their production. Students have numerous responsibilities such as ad sales, book sales, coverage of sports and extracurricular activities, and production deadlines. The student will learn copywriting, layout, design techniques, theme development and photography. Teamwork and creative thinking will be encouraged. Open to grades 9, 10, 11, 12 with teacher recommendation.

ENGLISH

English I

This course is an integration of speech and world literature, with the emphasis on speech and oral communication. Students learn the basic techniques and concepts of public speaking and put them to use through several different speaking experiences. The research process is incorporated through one of the major speeches. Open to grade 9.

English II

Basic composition and British Literature are the basic components of English II. Students will read epic and lyric poetry, plays, essays and short stories. Creative, as well as transactional, writing is promoted with music, pictures, activities, theme suggestions, and are incorporated throughout the year in journal entries and other exercises which relate to areas of discussion. Students learn the mechanics of the research paper and write a six to eight page paper. Coverage of grammar and punctuation is a significant portion of the first semester curriculum. Open to grade 10. Prerequisite: English I.

Honors English II

Honors English II includes the same curriculum as English II; however, the material is covered at greater depth and at an increased pace. Students will also be expected to complete extra projects/reading/writing. Open to grade 10. Prerequisite is English I, application and teacher recommendation.

English III

English III is designed to teach advanced composition skills and provide the student with a broad understanding/overview of American literature from earliest Native American oral tales through modern short stories and poetry. Students will write formal essays, as well as develop creative expressions. They will be required to read from a list of books and make oral presentations. Grammar and vocabulary will comprise a significant portion of

HS Course Descriptions 2009-2010

students' work, as well. Through this course, students will develop the basic composition skills acquired in English II. Open to grade 11. Prerequisite: English II.

Honors English III

Honors English III includes the same curriculum as English III; however the material is covered at greater depth and at an increased pace. Students will also be expected to complete extra projects/reading/writing. Open to Grade 11. Prerequisite is English II, application and teacher recommendation.

English IV

This course is designed to allow students to prepare for college by writing formal essays and at least one research work and by reading and analyzing several valuable works of literature. Students will work on creative expressions by keeping a journal and writing poetry, informal essays, and stories. Grammar and vocabulary building will be stressed throughout the course. One main objective will be to provide students with the skills necessary to develop a Christian response to literature they encounter in college. Open to grade 12. Prerequisite: English III.

Honors English IV

Honors English IV develops the students' English skills to a higher level, including in-depth writing, journalism and poetry work. This course also includes an extensive novel annotation and a strong debate unit to develop the student's ability to clearly reason, define and articulate his/her knowledge and beliefs. Open to grade 12. Prerequisite is English III, application and teacher recommendation.

FAMILY SCIENCE

Child Development

Students will get a glimpse into the awesome mind of God the Creator as they learn how a baby develops during the prenatal period. We'll look at the amazing newborn, and follow the progress of growth and development through age 5. Time will be spent observing and interacting with the preschool classes at the elementary campus. Class is open to grades 9 – 12.

Foods 1

This course is designed to help students become familiar with equipment and procedures in the kitchen. Students will learn while cooking delicious breakfast, lunch, dinner, dessert and snack dishes. Timely and thorough cleanup are emphasized. No previous cooking experience is required. There is a \$45 course fee. Class is open to grades 9 – 12.

Foods 2

This course builds on concepts learned in Foods 1. Advanced cooking techniques will be covered, and students will have a chance to practice them while creating garnishes, appetizers, pies and pastries, soups, salads and many more advanced dishes. Students will finish the semester by planning and cooking an entire meal, with emphasis on all dishes being ready to serve at the same time. Successful completion of Foods 1 is required to enroll in this class. There is a \$60 course fee. Class is open to grades 9 – 12.

Foods 3

This course will give students the opportunity to cook restaurant quality food in large quantities. Students will plan menus, create shopping lists, participate in pricing and ordering of food, as well as food preparation and clean up. Emphasis will be on presentation and quality. Students will also have the opportunity to train on institutional food preparation equipment in the ACS cafeteria. Successful completion of Foods 2 and approval of the instructor are required for this class. There is a \$75 course fee. Class is open to grades 10 – 12.

Interior Design

Many people appreciate a well-designed room, but few understand how to create one. This course will teach the basic elements and principles of design, and give many opportunities to practice designing floor plans and rooms.

Remodeling and renovation will also be covered. Students will have the opportunity to raise money and redecorate a room in the ACS building. There is a \$25 course fee. Class is open to grades 9 – 12.

Jr. High Family Science

This semester-long exploratory course offers students the opportunity to become acquainted with kitchen procedures and equipment while building skills that will last a lifetime. A variety of simple dishes will be prepared, and kitchen safety is emphasized, as well as timely and thorough cleanup. There is a \$25 course fee.

HS Course Descriptions 2009-2010

FOREIGN LANGUAGE

Language learning involves the development of skills in listening, reading, speaking and writing. All these areas are practiced continually at each course level to encourage each individual student to grow in his/her ability to communicate Spanish, particularly as spoken in Latin America. Throughout the courses of study, the student continues to review foundational material before being introduced to new material. Cultural information is emphasized, as well as missions, Bible verses, and vocabulary for witnessing. The student is provided the opportunity to develop communication skills by the means of skits, projects, activities and a variety of media.

Spanish I

The first year concentrates on learning basic vocabulary, correct pronunciation and the application of simple grammar to communicate at a beginning level in the contexts of home, church, school, store, restaurant, etc. The locations of Spanish speaking countries are learned, as well as cultural traditions. Open to grades 9, 10, 11

Spanish II

The second year continues to focus on helping students perform practical functions in Spanish. Grammar is taught as a means to improve communication in everyday contexts, such as beauty salon/barbershop, store, hotel, doctor's office, car shop, restaurant, etc. Students learn to communicate in 6 different tenses and to give commands. Open to grades 10, 11 and 12. Prerequisite is Spanish I.

Spanish III

This is an honors course for students who want to more fully develop their language skills. Reading comprehension, speaking, writing, and listening are the major emphases in the study of Spanish music, art and literature. Again, all previous material is reviewed and the study of grammar is expanded. Students concentrate on the country of Spain. Students learn to communicate in 14 tenses. Open to grades 11,12. Prerequisite is Spanish II. Also need Current Spanish/English dictionary.

Spanish IV

This honors course explores modern day Costa Rica and the Golden Age of Spain through expanded writing, reading, and discussion activities. Advanced grammar exercises and dealing with problems in translation give the student a solid basis for continued study at the college level. Various culminating activities are planned to allow personal expression and growth in communication skills. Open to grade 12. Prerequisite is Spanish III. Also need Current Spanish/English dictionary.

Spanish V

This course offering is available to qualified students who desire to continue their study of Spanish. The course is tailored to the needs of the student in developing communication proficiency in oral and written forms. It is designed to prepare students for the Advanced Placement Exam. A brief introduction to some notable authors, literary movements, and works of Spain and Latin America is presented within the context of historical and cultural influences. Open to grade 12.

HISTORY

History prepares students to be active and aware American citizens; to better understand the people and the world around them; to show respect for all; and most importantly, to gain a better understanding of how Jesus Christ works in the lives of people. History students at ACS will be taught to examine carefully the important social, economic, political, and religious issues of yesterday and today. All of this will be done from a fundamental Christian perspective.

World History

This course stresses the importance of God's hand moving through time. We will emphasize Ancient, Medieval, and Modern history, beginning with Creation and moving to the present day. This course includes map work, worksheets, heavy reading, current events, and other pertinent assignments that are necessary aids for the student in achieving academic excellence. Open to grades 9, 10.

United States History

This course stresses the importance of God's hand moving through time. US History is required for all students in the junior year, unless prior arrangements have been made with the administration and the history department. Emphasis will be on units such as the American Revolution, Expansion, the Civil War, Industrialization, the Great Depression, the U.S. in World War I and II, and current issues. This course will stress the importance of many political, economic, social, and religious developments that have shaped our nation. Critical thinking, worksheets, group work, map work,

HS Course Descriptions 2009-2010

video, current events, and many other aids will be used to motivate the student to pursue excellence in the classroom, in life after high school, and in the race that God has set before us. Open to grade 11.

American Government

This semester course required for seniors deals with: the uniqueness of America, its Christian foundation, and the American Dream; Parliamentary Procedure; Forms of Government; the Constitution of the United States; the Constitution of the State of Illinois; state and local history; and contemporary issues. We attempt to develop Christian thinkers in accordance with Biblical principles. The state required constitution tests will be administered in this course. Open to grade 12.

Economics

This semester course, required for seniors, provides a backdrop to understanding current events with a Christian mindset. Students will study the influence that the twentieth century has had on our day in the area of politics, family life, human dignity, and personal responsibility. Worldviews will be compared to Biblical Christianity, in order to cultivate wisdom and discernment about viewpoints that oppose Christian values. After completion of this course, students will be able to interpret current history from a biblical perspective and give a biblical defense of their faith. Open to grade 12.

MATHEMATICS

Algebra I part II

This course continues to cover the four fundamental operations of arithmetic from the standpoint of algebra. It will strongly emphasize solving systems of linear equations and inequalities, as well as factoring polynomials. Students will continue to drill fundamental skills developed in Algebra I Part I. Other topics covered within this course are exponents, quadratic functions, calculating percent and functions. This course frequently applies the fundamental algebraic concepts learned to solving real-life word problems. Among its many applications are statistics and probability, and geometry. Weekly skillsheets are a component to this course. Open to grades 8, 9. Prerequisite is Algebra I Part I.

Algebra I

This course covers the four fundamental operations of arithmetic from the standpoint of algebra. It will strongly emphasize solving equations and inequalities, as well as factoring polynomials. Students will graph lines and study their slopes and intercepts. Other topics covered within this course are exponents, systems of equations, quadratic equations and functions. This course frequently applies the fundamental algebraic concepts learned to solving real-life word problems. Among its many applications are statistics and probability, and geometry. Weekly skillsheets are a component to this course. Open to grades 8, 9. Prerequisite for 8th grade entrance is at least a 75% in Pre-Algebra.

Geometry

Geometry helps students think logically and deductively. This course emphasizes the skills of drawing, measurement and visualization. Geometric properties, deductive reasoning and algebraic representations are also a primary focus. Coordinates, transformations, area and volume are studied early, developing the logical and conceptual understanding needed for concentrated work with proof-writing. Weekly skillsheets are a component to this course. Open to grades 9, 10. Prerequisite is Algebra I. Students will need a compass, protractor, ruler (marked in both centimeters, and inches), and a scientific calculator.

Honors Geometry

Course description is the same as Geometry except the material is covered in more depth and/or at a more rapid pace. Students will be required to do a project with each of the 6 chapters in Semester 1 and will do 3 projects extra during semester 2. Weekly skillsheets are a component to this course. Open to grades 9, 10. Prerequisite is an A or B in Algebra I, and teacher recommendation. Students will need a compass, protractor, ruler (marked in both centimeters, and inches), and a scientific calculator.

Algebra II

Algebra II is a highly integrated study of the symbolism of algebra, solving equations, simplifying expressions, and functions. Students will develop skills in manipulating linear, quadratic, exponential, logarithmic, and trigonometric expressions and sentences. Weekly skillsheets are a component to this course. Open to grades 9, 10, 11. Prerequisites are Algebra I and Geometry. Student will need a graphing calculator (Texas Instruments TI-84+ recommended).

Honors Algebra II / Trigonometry

HS Course Descriptions 2009-2010

This course will provide a fast-paced study of both advanced algebra and trigonometry: linear and quadratic equations; polynomial, rational, exponential, logarithmic and trigonometric functions; systems of equations and inequalities; graphing of sinusoidal functions; and applications of trigonometry. Upon completion of this course, students will be well prepared for precalculus, discrete mathematics and statistics. Weekly skillsheets are a component to this course. Open to grades 10, 11. Prerequisites are Algebra I, at least a 90% in Honors Geometry, and teacher recommendation. Students will need a graphing calculator (Texas Instruments TI-84+ recommended).

Statistics and Trigonometry

This course will give students a full semester of both statistics and trigonometry, yet the two topics will be combined throughout the entire year. Statistical concepts will be integrated with graphical and algebraic concepts through the construction of mathematical models of relationships in data sets. A computer statistics package will be used to model linear, quadratic, higher-order, polynomial, exponential, logarithmic, and trigonometric functions. Binomial and normal distributions will also be covered.

Trigonometry will include the right triangle and unit circle definitions of trigonometric functions, their application to the finding of lengths and angle measures in any triangle, their graphs, trigonometric identities, and their applications to polar coordinates and to the finding of powers and roots of complex numbers. Weekly skillsheets are a component to this course. Open to grades 10, 11, 12. Prerequisites are Algebra I, Geometry, and Algebra II. Students will need a graphing calculator (Texas Instruments TI-84+ recommended).

Honors Statistics and Trigonometry

Course description is the same as Statistics and Trigonometry, except the material is covered in more depth and/or at a more rapid pace. Weekly skillsheets are a component to this course. Open to grades 10, 11, 12. Prerequisites are Algebra I, Geometry, at least a 90% in Honors Algebra II and teacher recommendation. Students will need a graphing calculator (Texas Instruments TI-84+ recommended).

Introduction to College Mathematics

Introduction to College Mathematics develops topics which were introduced in Geometry and Algebra II. This course will give the student a broad base and sharpen skills needed to succeed in College Algebra. Weekly skillsheets are a component to this course. Open to grades 12. Prerequisites are Algebra I, Geometry, and Algebra II.

Precalculus and Discrete Mathematics

This course will give students a full semester of both precalculus and discrete mathematics, yet the two topics will be combined throughout the entire year. Students will review polynomial, exponential, logarithmic and trigonometric functions while focusing on rational functions. Calculus concepts will be explored visually through the use of an automatic grapher.

Discrete math will include work with algorithms, combinatorics, graphs and circuits, recursion and integers. Calculus ideas will be approached through the study of continuous functions by examining their values at a set of discrete points.

Weekly skillsheets are a component to this course. Open to grades 11, 12. Prerequisites are Algebra I, Geometry, Algebra II, Statistics and Trigonometry. Students will need a graphing calculator (Texas Instruments TI-84+ recommended).

Calculus I / II

ACS cooperates with Waubensee Community College in offering calculus. (Your student must test into Calculus by taking the WCC placement test in order to be eligible for this opportunity.) During the fall term, students will take Calculus I; and during the spring term, students will have the option of taking Calculus II or a Project Mathematics Internship here at ACS.

Fees for the WCC classes will be subsidized by ACS; however, students will be required to buy their Calculus textbooks (which are used for Calculus I, II, and III) costing approximately \$120.00. Students must follow the WCC calendar, which lines up closely with our school year. Students also will need to provide their own transportation to and from WCC Sugar Grove campus. On off days, students will have time to do their calculus homework, ask questions, and receive tutoring/help from a teacher at ACS.

The Project Mathematics Internship (non-weighted class) will be supervised and graded by a math teacher. Students will be required to write worksheets and quizzes for a lower level math class and will also teach various lessons.

Depending on the student's interests and abilities, he/she will be assigned projects to complete (math fieldtrip design and implementation, math web page design, etc.).

HS Course Descriptions 2009-2010

Prerequisites are Trigonometry, Precalculus, and WCC placement. Taken through Waubensee Community College

MUSIC

Band

Students must possess enough knowledge of their instrument and music literacy in order to be allowed into band. This will be determined by the teacher.

High School Band is an opportunity to further advance technical facility, tone, intonation, phrasing, and general musicianship through the exploration and performance of a wide variety of styles of music. Skills will be increased through sectionals. The teamwork of working towards a common goal in preparation for concerts and music events fosters self-discipline and a challenge for the pursuit of excellence.

The band serves a two-fold purpose. From a performance aspect, our music is a ministry to our audience...a ministry of glorifying the Lord through our music. The band is also a ministry to the students involved. It is an outlet for fellowship as they learn to work in harmony.

Band activities include fund raising projects, school concerts, church concerts, festivals with other schools, contests, pep band, trips and tours as the budget will allow. Graduation is the final performance of the school year. All concerts are mandatory and a major portion of the student's grade.

Instruments must be provided by the student except when school instruments are rented. Reeds, valve oil, slide oil, cork grease, drum sticks, mutes, and Joel Rothman's "Teaching Rhythm", etc. must be purchased by the student.

Open to grades 9, 10, 11, 12. Must have at least 2 years experience in a junior high band, or teacher permission.

Choir

Choir is designed to teach basic music skills, including note reading, sight singing, and ear training. It will familiarize the student with a variety of musical styles and literature.

Choir will provide a broad experiential base which the student may draw from as he/she continues to enjoy music throughout life. It is the goal of the choir experience to enable each student to participate in ensemble singing with satisfaction and to encourage a feeling of self-worth in the student.

Choir activities include school concerts, church concerts, festivals, contest, trips, fund raising projects, and tours as the budget allows. Graduation is the final performance of the school year. All concerts are mandatory and a major portion of the student's grade. Open to grades 9, 10, 11, 12.

PHYSICAL EDUCATION

Health

This semester course teaches students to look at themselves and their environment. Physical, mental, social, emotional, and spiritual aspects are covered during units on personality, drugs, the human body and nutrition. Finally, students are taught the fundamentals of first aid and CPR. Open to grade 9.

Lifetime Activities and Fitness

This co-ed semester course is designed to encourage a love for physical activity at an individual level. Activities may include rock climbing, swimming, bowling, tennis, golf, endurance training, and fitness workouts and other lifetime activities. Some fees may apply. Open to grades 10, 11, 12.

Net Sports

This co-ed semester course is designed to encourage a love for physical activity with different net sports. Some activities will include badminton, volleyball, pickleball, soccer, handball, table tennis, etc. Open to grades 10, 11, 12.

Physical Education 9

This semester course is designed to help students improve their knowledge of the rules of various games and their ability to play these games. Students will learn to incorporate fitness and athletic skills through game situations that will help them throughout their lives. Open to grade 9.

Team Sports I and II

This co-ed semester course is designed to encourage a love for physical activity at a group level. Many different team sports will be taught and played. Games may include many different traditional team sports. Open to grades 10, 11, 12.

Weight Training I

This co-ed semester course is an introductory to different weight training methods. Students will learn to write a personal workout for themselves, and be able to gain knowledge from other articles related to fitness and weight

HS Course Descriptions 2009-2010

training. This class gives students insight into the realm of weight training and the variety of options they have. Open to grades 10, 11, 12

Weight Training II

This co-ed semester course gives more advanced training for individual workouts. Each student is required to write a daily workout for themselves, and be able to transfer those skills to other individuals. This section of weight training takes a deeper look into the field of physical training, and allows students to gain greater knowledge in developing a workout routine. Prerequisite: Weight Training I Open to grades 10, 11, 12.

SCIENCE

Biological Science

Biological Science is an introductory lab based course in biology for general studies and college bound students. The traditional lecture system is interspersed with lab work as the student will study the following units: biochemistry, cell biology, genetics, animal biology, botany, microorganisms, taxonomy, ecology, and creation/evolution. Open to grade 9.

Physical Science

The study of Physical Science covers the areas of physics and chemistry on an introductory level. The physics portion of the course is composed of units on motion, heat, measurement, light, electricity, and magnetism. The chemistry section is composed of units on atomic structure, the periodic table, chemical reactions, acid/base, stoichiometry, chemical bonding, and organic chemistry. Extensive lab work is a feature of the course. The concepts of physics and chemistry are emphasized, while much of the mathematical proofs and problems have been removed. Open to grade 10. Prerequisite is Biological Science.

Chemistry

This course studies the principles of chemistry in real life with examples from industrial chemistry, environmental chemistry, foods, cosmetics, and health and the human body.

Open to grades 11, 12. Prerequisites are Biological Science, Physical Science, Algebra I (or concurrently taking.).

Honors Chemistry

Chemistry studies the structure of matter through atomic theory with emphasis on the periodic chart and electron configuration. The nature of chemical reactions is explained by units on bonding, acid/base and oxidation reduction. The physical factors of chemical reactions are taken up in the kinetic theory, solution process and chemical equilibrium. Additional specific topics in organic chemistry, electrochemistry and descriptive chemistry are offered. Extensive lab work is a part of this course. This course introduces and develops the science of chemistry. Open to grades 11, 12. Prerequisites are Biological Science, Physical Science, and teacher recommendation.

Earth Science

Earth Science is a semester overview of the planet Earth and its place in the universe. The student will explore the universe around the earth by studying the stars and this solar system. The earth itself will be the major focus of the courses, as the dynamic earth shaping processes of plate tectonics and climate are studied. We will observe the materials of the earth and finally look at the history of our planet. Open to grade 12. Prerequisites are Biology and Physical Science. (Availability of this course will depend upon enrollment needs.)

Physics

This course will study energy and its effects on matter in the universe. The units to be covered are mechanics, heat, waves, sound, light, electromagnetics, and nuclear physics. Lab work is a part of the course. Open to grades 11, 12. Prerequisites are Biological Science, Physical Science, Chemistry, and Algebra II.

Anatomy & Physiology

Anatomy & Physiology is an advanced course in the biology of the human body. The course is highly recommended to students interested in the health or medical professions. Each unit will focus on a particular system of the human body with a strong emphasis on understanding the integration between systems. Major systems to be studied include the skeletal, muscular, nervous, respiratory, digestive, and excretory systems. This course will incorporate medical terminology and development of dissection skills. Open to grades 11, 12. Prerequisite is Chemistry (or concurrently taking.).

HS Course Descriptions 2009-2010

TECHNOLOGY

Applied Technology

In this semester class, students will learn to use basic and advanced features of Microsoft Word and PowerPoint. It is also taught in conjunction with Freshmen English during their research paper semester. Open grade 9.

Computer Applications II This class provides computer skills that you will need in college and beyond. In this hands-on computer class, the students will learn to use Microsoft Office. The components of Microsoft Office that are covered in this course are Word, Excel and Access. Students will be able to create professional looking documents using Microsoft Word. Microsoft Excel will be used to create spreadsheets that allow students to enter and format data, calculate data using a variety of methods, and generate and format charts. Students will enter data, create and format tables, forms, and reports, and query data using Microsoft Access. The students will be able to integrate the programs doing various "real world" applications. Open to grades 10, 11, 12. Prerequisite: Applied Technology, or comparable computer 1 course.

Computer Diagnostics trains students to troubleshoot and repair personal computers with confidence. The course will also offer students a chance to replace common computer components. Each student has the opportunity to troubleshoot common computer systems and respond to error messages. Students install, configure, and troubleshoot operating systems, including Windows XP; students will also become adept at command-line DOS and UNIX diagnostic utilities. This is a semester course, and can be taken either semester or taken as full year course when paired with Computer Networking. Open to grades 11, 12

Computer Networking trains students to design, construct, secure, and troubleshoot conventional and wireless networks. The course starts with simple small office/home office networks used to share a printer, music files, or an Internet connection; next, the course investigates wireless networks, exploring their vulnerabilities and finding ways to secure important data. The course will cover basic switch/router configuration. Students will work in a hands-on environment, implementing various network topologies, protocols, and network operating systems. Students study the Open Systems Interconnect (OSI) model, perform network traffic analysis, design IP addressing and sub-netting schemes. This is a semester course, and can be taken either semester or taken as full year course when paired with Computer Diagnostics. Open to grades 11, 12

Computer Programming 1 and 2 This course is an introduction to computer programming and how a computer works. You will learn how to solve business problems using VISUAL BASIC. Topics covered range from print formatting to arrays and enhancing business applications. Open to grades 11, 12

Graphic Design This is a year-long introduction to the basics of computer-based graphic design. The course work ranges from typography and the study of letterforms, to vector-based illustration, to promotional material, book layout, posters, logos, and much more! It is open to any student who has a background in design, and has taken one or more courses in design. Fee is \$50 for the year and covers printing fees to have projects professionally printed.