

SCOTLAND HIGH SCHOOL COURSE DESCRIPTIONS

The following required and elective courses are offered at SHS as part of the regular curriculum. Each class is listed according to department as well as grade level and amount of credit. Credits needed for graduation are listed after the department title.

MATHEMATICS (3 CREDITS REQUIRED FOR GRADUATION)

Algebra I

1 credit

Grades 8, 9

This course is designed to prepare students for success in Algebra II and beyond. It is a required class for high school graduation. Topics covered are solving equations, solving inequalities, solving compound inequalities, working with formulas, and doing operations with polynomials. We will also cover a unit on linear relationships and equations. If time permits, we will also learn how to factor polynomials.

Algebra II

1 credit

Grades 10, 11

Algebra II is an advanced Algebra course that will build on the material that we learned in Algebra I. It will also give the students a deeper understanding of algebraic concepts and problem solving. The students will begin the year with a review of the concepts learned in Algebra I. After finishing the review, students will learn how the equations and inequalities that they learned about in Algebra I can be applied to solve problems. The students will learn about systems of equations, and how they too may be applied to solve problems. We will also spend time working with functions and relations. We will cover how to recognize, evaluate, and graph functions. We will learn how to factor polynomials, and use factoring to solve polynomial equations and inequalities.

Basic Algebra II

1 credit

Grades 11, 12

Prerequisite: Algebra I

Concepts covered in Basic Algebra II include equations, expressions, inequalities, linear systems, quadratic functions and equations, polynomials and polynomial functions, exponents and exponential functions and radical expressions and equations. Students will need a scientific calculator. This course is offered every other year.

Geometry

1 credit

Grades 9, 10

Prerequisite: Algebra I

Concepts covered in Geometry include proofs, triangle congruence, parallel lines, perimeter, area, prisms, three-dimensional coordinates, surface area, volume, similar shapes, circles, and right triangle trigonometry. This course involves a lot of reasoning skills. Students will need a scientific calculator.

Trigonometry/Pre-Calculus

1 credit

Grades 11, 12

This is a college preparatory class that is intended for upper-level Seniors and Juniors that are planning on going to college. This course will help students prepare for Calculus as well as other college Math courses. Topics covered are Right-Triangle Trigonometry, the Law of Sines, and the Law of Cosines. Students will learn the Fundamental Trigonometric Identities, and use them to verify other Identities. They will also learn about some of the other identities that are used in Trigonometry such as the Half-Angle Identities, the Double-Angle Identities, and Sum and Difference Identities. Will also learn how to create the graphs of the trigonometric functions, and the different transformations that can affect those graphs. If time permits, we will also learn how to solve trigonometric equations.

Senior Math\Advanced Analysis**1 credit****Grades 11, 12**

Senior Math is an advanced Algebra class which will build on the material that the students learned in Algebra II. The students will begin the year with a quick review of the material that they learned in Algebra II, and then will move on to learn about Algebraic Fractions. Students will see how to simplify algebraic fractions as well as how to do operations involving them. Students will also spend a great deal of time learning about radicals. We will learn how to simplify radicals as well as how to do operations on expressions containing radicals. We will also extensively cover imaginary and complex numbers. We will investigate the different methods of solving quadratic equations such as completing the square, extracting square roots, and using the quadratic formula. We will learn how the discriminant of a quadratic equation can be used to predict what type of solutions the quadratic equation will have. We will also be introduced to logarithms, and logarithmic equations.

LANGUAGE ARTS (4 CREDITS REQUIRED FOR GRADUATION)**English I****1 credit****Grade 9**

English 1 is the first high school English class that students will take. This class is meant to introduce them to more difficult reading and writing and prepare them for their subsequent high school English classes. This is a two semester class that consists of instruction in literature, composition, grammar, and vocabulary. Students will read shorter fiction and non-fiction works out of a literature textbook as well as a few novels. They will be expected to complete weekly/bi-weekly grammar and vocabulary lessons and write compositions such as a literary analysis, an informative research paper, and others. All students will also be expected to complete an outside reading project.

English II**.5 credit****Grade 10**

English II consists of a grammar and composition class and a speech class. This is a one semester class that consists of instruction in literature, composition, grammar, and vocabulary. Students will read 2 novels, one Shakespeare play, and a few short stories. They will also be expected to complete weekly/bi-weekly grammar and vocabulary lessons and write compositions such as literary analysis and personal narratives. All students will also be expected to complete an outside reading project.

Speech**.5 credit****Grade 10**

This is a one semester class that consists of instruction in research, organization, outlines, and citations as well as composing and delivering speeches. Students will be expected to complete weekly/bi-weekly grammar and vocabulary lessons and compose several speeches: introductory, demonstration, informative, persuasive, and others. All students will also be expected to complete an outside reading project.

English III**1 credit****Grade 11*****Grammar/Composition III and American Literature***

English III consists of a grammar and composition class and an American Literature class. Both grammar and composition and literature are intermixed within both semesters. In this course, students will study American literature from pre-colonial times through the present. They will also read at least three novels that are considered American classics. In addition to this, students will learn how to research, outline, use citations, and compose various styles of writing. They will be expected to complete

weekly/bi-weekly grammar and vocabulary lessons as well. All students will also be expected to complete an outside reading project.

English IV

1 credit

Grade 12

Grammar/Composition IV and British Literature

English IV consists of a grammar and composition class and a British Literature class. Both grammar and composition and literature are intermixed within both semesters. In this course, students will study a variety of British Literature ranging from plays by William Shakespeare to short stories, novels, and poetry from other British authors. In addition to this, English IV students will be expected to complete several different writing assignments ranging from personal narratives to cause and effect papers to creative writing pieces. All students will also complete an eight page research paper where they will be expected to use multiple sources, create citations, outline the paper, and compose an organized and grammatically correct paper. Additionally, students will be expected to complete weekly/bi-weekly grammar and vocabulary lessons and an outside reading project.

Yearbook

.5 credit per semester

Grades 9-12

Yearbook is a course in which any students in grades 9-12 can get credit for working on the school's yearbook. This course will consist of instruction in composition of stories and captions, photography, and proper page layout design. This course will also consist of actual hands-on practice of those skills as students compose that year's yearbook.

Strategic Reading

.5 credit

Grades 9-12

This course is offered for one semester. The focus will be on developing and enhancing literacy skills. Students will work on word analysis, vocabulary development, fluency, and comprehension skills.

SCIENCE (3 CREDITS REQUIRED FOR GRADUATION)

Physical Science

1 credit

Grade 9

This is a required class for all ninth graders. It will prepare students for Physics and Chemistry, as well as give them an understanding of some basic scientific laws and principles. Topics covered are properties of matter, the scientific method, the SI System, and significant digits, and scientific notation. We will also learn about speed, velocity, acceleration, forces, energy, and work. Some Chemistry topics will also be covered such as elements, compounds, mixtures, and the Periodic Table.

Biology I

1 credit

Grade 10

Biology is the study of life and how living organisms interact with each other and their surroundings. Biology I is a required class for all 10th graders. Topics covered include the cell, genetics, photosynthesis and respiration, evolution, ecology, viruses and bacteria, as well as general overviews of plants, vertebrates, and invertebrates.

Biology II

1 credit

Grade 11, 12

Biology II is essentially an extension of the material that is covered in Biology I with more depth being given to the subject matter. Topics covered over the course of the year include but are not restricted to Geological history, Natural Selection, Taxonomy, Populations, Ecology, and the study of each of the six biological kingdoms.

Basic Chemistry**1 credit****Grades 11, 12***Prerequisite: Physical Science*

Topics covered include the atom, the periodic table of elements, chemical formulas and equations, stoichiometry, gas laws, acid and base properties, and reduction - oxidation reactions. This class is less mathematical than Advanced Chemistry. It is also application based. Students will need a scientific calculator. This course is offered every other year.

Anatomy and Physiology**1 credit****Grades 11, 12**

Anatomy and Physiology is essentially the study of the human body. Course contents include studies of the major body systems (integumentary, muscular, circulatory, skeletal, endocrine, reproductive, and nervous) as well as how the body works (cell reproduction, metabolism, oxygen capacitance, muscular contraction, digestion, etc.). Surface and internal investigations will be done through the dissection of cats.

Advanced Chemistry**1 credit****Grades 11, 12***Prerequisite: Algebra II*

Chemistry is the study of matter and how it interacts with its surroundings. Course content is very **mathematical and theoretical** in nature. Topics covered include the atom, the periodic table of elements, chemical formulas and equations, stoichiometry, gas laws, acid and base properties, and reduction - oxidation reactions.

Physics**1 credit****Grade 12**

Physics is the study of motion and is concerned primarily with the relationship between matter and energy. **Course content is highly mathematical in nature.** Topics covered include velocity, acceleration, friction, force, torque, vectors, periodic motion, optics, sound, electricity, and heat.

SOCIAL STUDIES (3 CREDITS REQUIRED FOR GRADUATION)**American Government****1 credit****Grade 12**

This course will consider how the governmental system in America is organized, how it is controlled by the people, and how it works. Students will learn how their many rights have developed and changed, and they will gain knowledge on the need to be informed and involved citizens. Students will study the basic principles of government and its origin, take an in-depth look at the branches of government and the Constitution, and will study political parties and the electoral process.

U.S. History**1 credit****Grade 11**

Students will experience history through the words, artwork, and music of the people who lived it. From post-Civil War to the 1960's and the civil rights movement and on to September 11, 2001, they will gain an understanding of why certain actions were taken and how those actions affect the world today.

World Geography**.5 credit****Grade 10**

This World Geography course will attempt to spark students' interest in different places around the world and to get them excited to learn about the people that live in these different places. We will also learn about how some of these people and places affect our lives here in South Dakota. Some of the places that we will learn about are Central and South America, Europe, Asia, Canada, and Africa. This class will stress basic map skills and physical geography, landforms, climates, and cultural geography.

World History**.5 credit****Grade 10**

This World History course will focus on early civilizations and empires of the ancient world. Students will understand the emergence and development of world civilizations and cultures over time and place. They will analyze historical eras of World History to determine connections and cause/effect relationships in reference to chronology. Students will evaluate the interaction of world cultures and civilizations, philosophies, and religions. Topics covered will include the beginnings of Europe and the Americas, the American, French, Russian, and Industrial Revolutions and World War I.

BUSINESS/CAREERS/TECHNOLOGY**Computer Applications****.5 credit****Grades 9-12**

The primary focus of the Computer Applications course is to prepare students to use multiple forms of technology (both hardware and software applications) in their future endeavors throughout high school. Students will become competent with software applications such as Microsoft Excel and PowerPoint and will gain experience with devices such as digital cameras, scanners, and Apple I pads.

STEM Programming**.5 credit****Grades 10-12**

The primary focus of the STEM Programming course is to introduce students to basic programming and programming structures. Students will use a computer application to create on-line games by setting up the programming to make the game work properly. In doing this different programming structures will be used to make the event driven gaming application perform properly. The final project will have students design, develop, and program their own game using the given application. This course will alternate year by year with the Web Tools 1.0 course.

Computer Networking**.5 credit****Grades 10-12**

The primary focus of the Computer Networking course is to give students an understanding of how computer networking function from a local level all the way to the Internet. In this process students will perform many hands on tasks in a mini network environment to give them experience on how to troubleshoot networking issues and how to setup different aspects of a network. Network security concerns and options will be addressed. This course will alternate year by year with Computer Hardware. This course will alternate year by year with Computer Hardware.

Computer Hardware**.5 credit****Grades 10-12**

The primary focus of the Computer Hardware course is to provide students with the knowledge and experience to fix issues related to the hardware of a computer. Students will learn about hardware components, their function, and how software works together with the hardware to make a computer function correctly. Students will be provided hands on experience in troubleshooting and repairing different computer problems. This course will alternate year by year with Computer Networking.

Web Tools 1.0**.5 credit****Grades 10-12**

The Web Tools 1.0 course combines different aspects of working with the web and social media. Various topics include: Webpage fundamentals and design, working with images and video, social media tools such as blogging and using Twitter. Other related topics include good design principles, color theory, and the use of on-line forms with data collection. This course will alternate year by year with the STEM Programming course.

Careers**.5 credit****Grades 9-12**

Careers class introduces students to and makes them aware of the skills and knowledge necessary to be good citizens, effective adults, and productive workers along with life-long learners. Students will be introduced to career exploration, the employment process and communication skills inside and outside of the work world.

Introduction to Marketing/Advertising**.5 credit****Grades 9-12**

Advertising offers students an array of promotional activities for various products. Topics include consumer buying behavior, principles of selling, interpersonal skills, media planning, various mediums, and commercial design.

Business Law**.5 credit****Grades 9-12**

This course focuses on an understanding of the court system at the local, state, and national level. Students will gain an understanding of contract law, their rights and responsibilities as citizens, utilization of financial transactions, employment and agency relationships, and the understanding of regulations governing different types of business organizations.

Business Math**.5 credit****Grades 9-12**

This course focuses on skills needed to solve “real-life” mathematical problems, analyze and interpret data and apply sound decision-making skills that relate to the business world. Basic math exercises included sports math, earning income, payroll deductions, banking, investing, and borrowing, credit cards, buying a home, busying a car, figuring taxes, insurance, renting, and owning property.

Accounting**1 credit****Grades 9-12**

Accounting is the language of business and an important aspect of all business activities. It provides an introduction to keeping financial records for a small business and for personal financial records (Checking Account). It includes analyzing business transactions, journalizing, posting and preparing worksheets and financial statements.

Introduction to Business**1 credit****Grades 9-12**

This course focuses on an introduction to business at an entry level. It will cover topics on our economic system, business organization, starting a small business, being an informed customer, bank accounts, credit, and insurance. General knowledge of the business world will be gained and can be used to build upon future success in the business world.

Personal Finance**.5 credit****Grade 12**

This course is intended to prepare the student for his/her life skills concerning the management of their income. Having the knowledge and skills to understand, implement and evaluate various financial practices can help prevent or limit loss. Units on career decisions, money management, financial security, credit management, risk management, and consumer rights will be covered to help them in “real-life” situations.

MUSIC

HS Band**.5 credit per semester****Grades 8-12**

Instrumental music involves many areas of music including marching band, concert band, pep band, and solo and ensemble competition. In marching band, students perform and compete in parades in the Fall. Throughout the school year the concert band performs at least two concerts, competes in the large group contest, and plays for homecoming and graduation.

Students will work towards the following goals:

- 1.) Rehearsing and performing instrumental music in an ensemble setting.
- 2.) Developing an ensemble focuses around treating others with respect and kindness.
- 3.) Learn to read and understand musical notation.
- 4.) Develop instrument playing, tuning, and listening skills.
- 5.) Develop performance etiquette, poise, and confidence.

HS Choir**.25 credit per semester****Grades 9-12**

Vocal Music will acquaint the student with music theory, history, ear training, vocal technique, and performance etiquette. Students have the opportunity to participate in all-state choir, various types of ensembles, and competitions.

Students will work towards the following goals:

- 1.) Rehearsing and performing vocal music in an ensemble setting.
- 2.) Developing an ensemble focused around treating others with respect and kindness.
- 3.) Learn to read and understand musical notation.
- 4.) Develop singing, tuning, and listening skills.
- 5.) Develop performance etiquette, poise, and confidence.

Music Appreciation**.5 credit****Grades 9-12**

Music Appreciation is an elective for grades 9-12 that offers .5 credit per year. This class will take students through the history of rock and roll. Students will learn about classical music, composers and the eras in which they lived. Material will reflect on music from the past to the present in various cultures. Students will also be given the opportunity to share, through projects, their favorite artists and music styles.

FAMILY AND CONSUMER SCIENCE**FACS I****.5 credit****Grades 9-12**

In the FACS I students will get the opportunity to learn Careers/Career Exploration, Nutrition and Wellness, Human Development, and Relationships. The students spend a few weeks on each topic. They learn about themselves as a person, what their goals and dreams are, how to live a healthy lifestyle, what it means to be in a relationship, and how they developed into the person they are today.

Human Development: Prenatal to School-age**. 5 credit****Grades 10-12**

Understanding patterns, sequences, and stages of development is vital for guiding infant and toddler to

make informed decisions. Due to an increasing number of working parents and a need for highly qualified educators, trained personnel in the childcare field are in demand. Human development knowledge is essential for individuals seeking a career in education, health, medical and human service professions, and many other careers involving working with infant, toddler, children and youth.

Skills for Parenting

.5 credit

Grades 10-12

Effective parenting is important in nurturing children to become healthy, caring, contributing citizens. Parenting involves meeting the basic physical, emotional, intellectual, and social needs of the child. This class is designed to help students examine roles, responsibilities, influences, practices, and support related to the parenting process.

Nutrition and Wellness

.5 credit

Grades 10-12

According to the Center for Disease Control and Prevention, 23% of South Dakota high-school students are overweight or at risk of becoming overweight. Nationally, “obesity rates continue to rise in the United States. Since 1980, being overweight has doubled for children and tripled for adolescents. Being overweight puts children and teenagers at greater risk for developing type 2 diabetes, risk factors for heart disease at an earlier age, and other health conditions including asthma, sleep apnea, and decreased self-esteem” (National Conference of State Legislatures – Childhood Obesity Update – 2005). The Nutrition and Wellness course is designed to help students develop eating behaviors that will have a positive effect on their current and future lifestyles.

PHYSICAL EDUCATION/HEALTH

Physical Education

.5 credit

Grade 9

Freshman P.E. is a one semester class that explores life time activities. The class will spend time learning the rules and variations of sports like volleyball, basketball, flag football, weight lifting/fitness and archery. The first semester is reserved for exploring a variety of intramural type sports. Volleyball, Flag Football, Tennis, Basketball and Bowling are some of the sports students can expect to play. Also included is a three week session in the weight room to discuss proper form, etiquette and keeping all areas clean.

Health

.5 credit

Grade 9

Freshman Health is also a one semester class which explores a variety of health related topics. Students will be taught what health is and how it has changed over time, they explore the body systems and proper nutrition. We also explore the harmful effects of alcohol and new for this year we will be studying Life Style Diseases such as diabetes, cardiovascular disease, strokes and cancer.

Fitness and Conditioning I & II

.5 credit

Grades 11-12

Fitness and Conditioning focuses on the proper techniques of weight lifting and conditioning of the body. Students will explore sport specific weight lifting programs, pre-season, in-season and post-

season. Students create their own goals and manage their own weight program throughout the semester and calculating their progress. Students will also explore different fitness programs such as plyometrics and incorporate them into their daily routines. Fitness and Conditioning also explores weight lifting programs for those students that just have personal fitness goals that they want to obtain. These students will learn that cardiovascular health is just as important as physical strength.

Fitness and Conditioning II

.5 credit

Grades 11-12

Fitness and Conditioning II is an advanced lifting and conditioning course offered to Juniors and Seniors. Advanced lifting techniques and program structure will be applied to sport specific Pre-, In- and Post-season workouts.

FOREIGN LANGUAGE (Offered through Distance Learning)

Spanish I

1 credit

Grades 9-12

Goals in the classroom of a world language include speaking in the target language, reading material, writing patterns of language, understanding ideas and phrases, and developing an awareness and appreciation of heritage. Spanish 1, being the foundation, provides an introduction to and reinforces these objectives.

Spanish II

1 credit

Grades 10-12

Spanish II will constitute four major areas: vocabulary, conversation, pronunciation, and culture. Students will acquire an extensive vocabulary of Spanish words, will practice Spanish conversation skills, will learn correct pronunciation of sounds and words, and will learn about the Spanish culture. Students will learn Spanish articles, adjectives, plural forms, and verb conjugation. Students will learn to conjugate Spanish –ar, -er, and –ir regular and irregular verbs in the present, preterit, and future verb tenses. While learning verb conjugation, students will also learn the stem-changing verbs of “e” into “ie”, “o” into “ue”, and “e” into “i”. Reflexive verbs, possessions and direction object pronouns, direct object pronouns, and indirect object pronouns will be studied during Spanish II.