Social Studies grades 9-12

## **American History after 1865**

Students study key events and figures in American history after 1865 and gain an understanding of the historical context surrounding these figures and events. General concepts and themes include industrialization, westward expansion, women and minority rights, imperialism, World War 1, the Jazz Age, the Great Depression, World War 2, the Cold War, the tumultuous 1960s, and the gradual rise of American preeminence.

## **World History**

Combining the accumulation of historical knowledge with critical analysis, students will learn to connect the development of early human civilization to modern history and current events. Broad historical trends are discussed as well as the manner in which history is used to understand current events.

## **World Geography**

Students will examine the interdependence of history, geography, and culture to provide context for understanding current events around the world. Global problems are examined and potential solutions are presented and analyzed. Students will learn to debate important issues effectively and politely.

#### **American Government and Economics**

During the first semester, in addition to studying the intellectual and historical roots of American government, students will examine the mechanics of policymaking and implementation, campaigning, and learn about the people involved. During the 2<sup>nd</sup> semester, students will gain an understanding of the manner in which limited resources are allocated to accommodate unlimited needs and wants. Moreover, students will learn to evaluate economic arguments and reconcile the tension between behavioral and traditional economics. In both sections, students will learn to challenge opposing arguments responsibly, politely, and effectively.

English grades 9-12

# English I

The course aims to teach students to understand and execute different aims and modes of writing and to recognize the different genres of literature. Students practice speaking and writing clearly, following the standard conventions of our language. SAT-level vocabulary lessons, timed writings, and essay tests which encourage critical thinking challenge the students on their journey towards college. Novel studies and literary analyses are part of the curriculum. Students learn and execute the steps of the research process and produce a well-written and accurately documented (following the guidelines of the Modern Language Association) research paper on a given topic. In addition, students continue to practice skills which will prepare them for taking the SAT, ACT, and other achievement/college preparatory exams, including analysis and practice of successful test-taking strategies.

## **Enalish II**

Students build on skills learned in English I. The goal of the class is to exhibit an improvement in reading, writing, and grammar skills, and to use higher level critical thinking skills in the analysis of literature of different genres. College-preparatory lessons which include SAT-level vocabulary lessons, timed writings, and essay tests. Novel studies and literary analyses are part of the curriculum. Students learn and execute the steps of the research process and produce a well-written and accurately documented (following the guidelines of the Modern Language Association) research paper on a given topic. In addition, students continue to practice skills which will prepare them for taking the SAT, ACT, and other achievement/college preparatory exams, including analysis and practice of successful test-taking strategies.

## **English III/American Literature**

Students study American literature from its beginnings in Native American mythology through the various literary periods to present day literature, gaining abilities in grammar and writing. Emphasis continues on college-preparatory lessons which include SAT-level vocabulary lessons, timed writings, and essay tests. Novel studies and literary analyses are part of the curriculum. Students learn and execute the steps of the research process and produce a well-written and accurately documented (following the guidelines of the Modern Language Association) research paper which includes literary analysis of a particular work. In addition, students continue to practice skills which will prepare them for taking the SAT, ACT, and other achievement/college preparatory exams, including analysis and practice of successful test-taking strategies.

#### **English IV/British Literature**

Students study British literature from its birth in the Anglo-Saxon period to present day. They will exhibit college readiness through mastery of reading, writing, and grammar skills. Compositions, timed writings, and essay tests are expected to be detailed and show high levels of critical thinking. Students will exhibit mastery of their skills as they write essays for college applications. They will learn and execute the steps of the research process and produce a well-written and accurately documented (following the guidelines of the Modern Language Association) research paper which includes literary analysis of a particular work. In addition, students continue to practice skills which will prepare them for taking their final SAT, ACT, and other achievement/college preparatory exams, including analysis and practice of successful test-taking strategies.

#### **Dual Credit College English**

Qualified high school English students may concurrently earn credit for Composition and Rhetoric I and II as well as select upper level literature courses in cooperation with Lone Star College.

\*ESL credit is available for students in 6<sup>th</sup>-10<sup>th</sup> grades.

Math grades 9-12

# Algebra I

Algebra I broadens and deepens students' knowledge of the language and tools of Algebra, real numbers, solving equations, solving inequalities, and graphing functions learned in Pre-Algebra. Throughout the course basic understanding of algebraic thinking and symbolic reasoning, function concepts, and the relationship between equations, inequalities, and functions are incorporated. The course study connects to topics in geometry, probability, statistics, and trigonometry which helps students to apply mathematical concepts to the real world in their group activities or study.

## Algebra II

Algebra II covers systems of equations and inequalities, absolute value, mathematical induction, theory of polynomials, quadratic equations, exponential and logarithmic functions, conic sections, field of complex numbers, and rational functions. Topics in trigonometry include circular functions, trigonometric identities and trigonometric equations, inverse trigonometric functions and applications of trigonometry. Emphasis is placed on abstract thinking and mathematical rigor. Graphical calculators and computers are used to illustrate concepts and motivate ideas.

# Geometry

Students study properties and relationships of geometric figures in reference to size, shape, location, and direction. Students develop an awareness of the mathematical system, connecting definitions, postulate, logical reasoning, and theorems. This course teaches students how to use geometric ideas, constructions, logical reasoning, inductive reasoning, and deductive reasoning to prove, analyze, and solve problems. At the end of the course students are able to analyze geometric relationships in order to make and verify conjectures, and to prove and justify mathematical concepts.

#### **Pre-Calculus**

Pre-Calculus is a study of higher level math that has students concentrate on algebraic concepts and trigonometric applications with or without technology. The students will learn how to solve application problems that involve linear and quadratic functions, exponential and logarithmic functions, linear systems, matrices and determinants, permutation combinations, probability, and conic sections. The students will have opportunities to model real-world data with linear functions, matrices, polynomial functions, sinusoidal functions, parametric equations, and exponential and logarithmic functions.

### Calculus

This course brings together the concepts taught in Algebra, Pre-Calculus, and Trigonometry, which are prerequisites to the course. The curriculum includes topics of differentiation and graphing, integrations, analytic geometry, vectors and vector analysis, and a high level of mathematical theorems. The topics taught in Calculus will be supplemented with emphasis on visualization and effective use of technology. The curriculum will challenge the student to solve routine problems, theory problems, interpretation problems, and computational problems. This course is designed toward advanced placement for the college-bound student. Students who take the course will be prepared for the Calculus AB exam.

Science grades 9-12

## **Biology**

Students delve into the chemistry of life and the relationship between living organisms and their environment. A study of the cell and its processes, classification of organisms and the microscopic world of bacteria, protists and viruses complete the course.

## Chemistry

Students will participate in a high school level, college-preparatory course exploring the structure of matter and its interactions. Chemical bonding and reactions are studied, and the science of stoichiometry is introduced. Students work with units of measurement and the scientific method. Laboratory procedures are reviewed and practiced.

## **Aquatic Science**

This course covers the historical origins of oceanography. Students will study the ocean and its interaction with the atmosphere and weather. A field trip to Galveston where students observe sea turtles and gather specimens to identify and study will complete the course.

# **Anatomy and Physiology**

Students begin their study of the body with an understanding of anatomical terms. All body systems are studied, with an emphasis on the maintenance of a healthy body.

#### **Physics**

This course stresses application of mathematics to physical situations, principles of mechanics, and thermodynamics. Considerable emphasis is placed on laboratory investigation and student research.

# Clubs, Societies & Competitions

#### **Bears in Action**

Bears in Action is a club which focuses on students' service in our community as volunteers in many areas. In addition, the adviser helps students maintain records of their service and keeps copies of those records on file for use in college and scholarship applications.

# **Destination Imagination**

Each year, DI offers 7 long-term challenges to work on in science, technology, engineering, mathematics, improvisation, and visual arts. It enables student teams to learn and experience the creative process from imagination to execution.

#### **Houses and Prefects**

At The Banff School we have a "house system" in which the students are divided into four groups or teams called houses which are named after Greek philosophers - Socrates, Plato, Aristotle and Pythagoras. Each Banff student competes with other students academically and athletically for the benefit of his/her house.

# **National Honor Society**

The National Honor Society recognizes students for their outstanding academic achievement and demonstrates personal responsibility. The NHS also provides meaningful service to the school and community.

# **Scholastic Art and Writing Competition**

The Alliance for Young Artists & Writers identifies teenagers with exceptional artistic and literary talent and brings their remarkable work to a national audience through The Scholastic Art & Writing Awards.

#### Science Fair

The Annual Science Fair offers students the opportunity to compete against each other while following the parameters of the scientific method.

# **Scripps Spelling Bee**

Scripps is the nation's largest and longest running not-for-profit educational competition. It helps students in grades 2nd-8th improve their spelling, increase their vocabularies, learn concepts, and develop correct English usage that will stay with them all of their lives.

#### **Student Council**

The Student Council is tasked with planning and organizing important events as well as initiatives intended to improve student life at the Banff School.

#### Chess

Whether your child is a casual chess player or tournament participant, this exciting enrichment program will improve every child's game.