



BRIDGTON A C A D E M Y

SCIENCE ELECTIVE OFFERINGS:

ANATOMY

The Anatomy course at Bridgton Academy is designed to provide a broad appreciation for the structural organization of the human body and to relate the organization to regional and systems-related functions. Specific study is applied to bodily movements and the kinesiology required for physical movement. Students are provided multiple resources for study. Texts include Netter's "Atlas of the Human Body", Delevier's "Strength Training Anatomy" as well as "Netter's Anatomy Coloring Book". Weekly coursework consists of lectures, lab activities, quizzes, two exams and an oral presentation on kinesiology.

CAP GENETICS

CAP Genetics is a year-long science elective which provides an understanding of the kinds of questions that science can and cannot address, while exploring topics in cellular biology, the structure and function of genes, and biotechnology. Discussions probe the bioethical implications of our growing knowledge and application of technologies involving manipulation of cellular and genetic processes. This course also includes experiences in a laboratory setting to conduct basic experiments that elucidate the structure of cells and the function of genes. Successful completion of this course may qualify a student for 4 hours of transferable college credit from Saint Joseph's College.

CAP NUTRITION

CAP Nutrition is a college-level nutrition course, which focuses on the interrelationship between nutritional practices and human physical performance in sports and fitness. Topics include the role of carbohydrates, fats, proteins, vitamins, minerals and water on both everyday eating and physical performance. This course provides a foundational science background in chemistry, anatomy and physiology, and microbiology in the context of human nutrition, as well as hands-on lab experiences. Upon successful completion of CAP Advanced Human Nutrition, students may earn 4 credit hours from Saint Joseph's College.

INTRODUCTION TO ENVIRONMENTAL ISSUES

Introduction to Environmental Issues examines, in a one-semester elective, the origins of and solutions to pressing current environmental issues. A comprehensive, multidisciplinary approach to environmental problem solving is stressed, and students will explore the scientific, legal, economic, and social aspects of the issues in order to better understand the complexity of these problems.

METEOROLOGY

Meteorology is an introductory course that explores the composition, structure, and physical properties of the Earth's atmosphere. The course focuses on the basics of heat balance, atmospheric stability, precipitation processes, and understanding the importance of clouds. We also study cyclonic activity, weather analysis, and very basic weather forecasting techniques. Particular attention is paid to the causes, structure, and impact of tornadoes, hurricanes, thunderstorms and other severe weather systems.

NUTRITION

Nutrition is a one-semester elective that covers the scientific principles of human nutrition in maintaining health and preventing disease. Nutrient requirements of the human body, biochemical functions, and interrelationships of nutrients are examined. Athletes learn how to fuel their bodies for building muscle, optimal sports performance, and for general health and well-being. Nutritional misconceptions and controversies are evaluated using readings, discussions, and hands-on lab experiences.

SOCIAL SCIENCE ELECTIVE OFFERINGS:

AMERICAN CIVIL WAR

The American Civil War course begins with a study of the causes of the Civil War, and moves through an exploration of the war, its battles, and the social climate of America during the War. As we celebrate, seemingly daily, the anniversaries of a multitude of momentous events that occurred during this pivotal era, this class looks to put these events into a usable current context. The course format combines lectures and discussion. Reading is expected both in the text and through access to outside sources.

EXPERIENCES IN 21st CENTURY LEADERSHIP

Great leaders are people who influence and empower others and are able to think strategically and critically to impact the world around them. This one semester elective course provides students with an opportunity to learn about their strengths and put them to use via on & off campus community programs. This course asks students to assess strengths & weaknesses, learn basic budgeting skills, visit small and large businesses, and explore a variety of leadership philosophies, all while developing our group dynamic.

CAP GRAPHIC DESIGN

Graphic Design is a course designed to introduce students to the design process as it pertains to digital imagery. Focus is placed on the creation process and the idea of storytelling through digital design. Software applications such as Adobe Photoshop and Illustrator are used to simulate real world labs and design experiences. Techniques such as layering, selecting, enhancement, composting, path and pen skills are taught, as well as the fundamentals of graphic design. Successful completion of this course may qualify a student for 4 hours of college credit through Saint Joseph's College.

INTRODUCTION TO PSYCHOLOGY

This course serves as an initial overview of the field of psychology and introduces students to prevalent historical and current topics in the field. Through a combination of audiovisuals, lecture, and discussions, students will better understand the foundations of psychology and its application to our world today. Topics may include motivation, memory, cognition, personality, and social behavior.

LEISURE IN AMERICA

Leisure in America offers students the opportunity to examine the role of sports in American culture. Through case studies, students will identify the cultural changes of American within the leisure activities popular at the time. Gender roles, racial equality, and socioeconomic division will be of primary importance. Ultimately, the goal of the course is for students to better understand the relationship between sports and American values.

MASS COMMUNICATION

Mass Communication is a constantly evolving field. Audience, method, and content have all seen recent developments turn the industry on its head. However, the need for great storytelling has not changed. This course explores different types of media while focusing on the content created here at Bridgton Academy. The content will be student produced and presented and will include video, podcast, social media, and traditional written work.

SPORTS PSYCHOLOGY

Sports Psychology explores the various psychological factors that influence sport performance. Students examine both the scientific theory and the practical application of this knowledge to human performance. Major topics include issues in confidence, anxiety, motivation, leadership, and personality. Students learn what is relevant to their own experiences in all achievement related contexts, not just the athletic environment.

WAR IN US HISTORY (CAP)

CAP America at War surveys American military history, using select wars to investigate the relationship of the past to the present. The course studies the causes and effects of select wars, examining particular battles and extant home front issues. Students connect past strategies, events and debates to later times, along with themes of politics, society and culture. CAP America at War seeks to address the question: Has the US become a warrior nation? Successful completion of this course may qualify a student for 4 hours of college credit through Plymouth State University.

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