New Courses 2019-2020

American Music History (1920-2000)

This one-semester course explores how popular music has evolved in America from 1920, the dawn of popular music in America, through the turn of the century. Students will learn to trace the journey of musical styles in America including, jazz, blues, swing, folk music, rock 'n roll, country, and the variations of each that have emerged. Students will also be able to identify the major artists and their contributions for each era and style of music. Music and lyric analysis from each era, developments in musical technology, the evolution of music production, music industry promotion, listening formats and delivery, as well as identifying influences upon the music from the cultural events of that same era are essential components of this course. Students will gain an appreciation for the rich history of music in America and the influences that have made it popular. In conjunction with the discussion of mainstream popular music will be a look at the journey of sacred Christian music during this same time period. This class will be comprised largely of class presentations, documentary movies, group projects and independent biographical reading. Literature, film, and listening to musical compositions will all be incorporated into the class. No musical performance experience is required.

Elective: 2.5 credits

Prerequisites: Freshman - Senior in good standing

Applied Coding

Programming can be fun and a very creative activity. Creating music is a great way to get started in coding. In this course you will learn to code creatively using Ruby by composing music in an incredible range of styles from classical & jazz to hip hop & rap. Then, building on these basics coding skills you'll begin to explore the world of artificial inelegance (AI) by working with your own Google Assistant and Python. This introductory coding course is designed to provide you with an opportunity to explore cutting edge technologies that are fun and interesting using Ruby and Python, which are two of the most popular programming languages, especially for your first languages. These object-oriented programming languages span many industries and companies like Google, YouTube and Twitter. You'll be learning to code using these high-level languages in terms that are more human like and less computer as you work both individually and in teams to complete coding projects throughout the semester.

Elective- 2.5 credits

Prerequisites: Students must have successfully completed Computer Science 1 and Technology Fundamentals

Art Through the Ages

This class is designed to offer students the opportunity to explore in depth, the history of art from ancient cave paintings to impressionism. Through reading, writing, researching, videos, class discussion and a visit to the Worcester Art Museum, students will view significant artworks from around the world. Writing skills will be used in the description, analysis, and comparison of works viewed. The class will have weekly discussions on significant historical events, art periods and styles, and themes that connect these works.

Elective-2.5 credits

Business & Personal Law
This half year course is designed to introduce the student to the study of law through a brief look at how law developed, the legal system in the United States, the functions of the federal and state court systems, and civil and criminal law. Additional topics include computer law, financial crimes, legal careers, international law, discrimination, contracts and business organization. This course will help students become aware of their rights and responsibilities under the laws so they can function as responsible citizens in their personal and professional lives.
Elective-2.5 credits
Prerequisite: Sophomore-Senior

Calculus
In this college preparatory course, students will build on the concepts learned in Pre-Calculus, learning about limits, differentiation, and integration. Students will apply these concepts to a wide range of real-world problems, including rates of change, optimization, and velocity/acceleration. This course will provide a solid foundation for students planning on studying mathematics-related topics in college.
Elective- 5.0
Prerequisite: Pre-Calculus

Digital Media
This course is a study of the concepts, principles, and terminology of digital image creation, animation, and videography. Students learn how to use digital cameras and computer software to create and edit still images, animations, and videos in order to tell imaginative and compelling visual stories. Students will also work with sound effects, music, and special effects.
Elective - 2.5 credits
Prerequisite: Technology Fundamentals / Sophomore-Senior

Ecology
The ecology course is based on laboratory experience and field site study. Students will learn numerous data collection techniques and how to collect, categorize and interpret hard data. The main focus will be to help students understand the relationships between flora and fauna and the transfer of energy through nutrient and biochemical cycles. Mammalogy will present students with an intensive overview of the scientific classification of mammals. Students will learn to identify all mammal orders as well as the similarities and differences between mammals and man as God's image. Dissection, skin preparation, bone identification and phylogenetic classification will be done.
Elective-2.5 credits
Prerequisites: Biology, Junior-Senior
Honors component offered, Approval of Ecology teacher

Faith and Reason

The Bible has been scrutinized for thousands of years. The claims most often levied against the Word of God suggest that alleged contradictions that "pervade the book" render it invalid. This course is meant to instruct students as to how they can reasonably understand and navigate their Bibles, all while directly facing common contemporary criticisms. In this course students will explore the character of God throughout the Old and New Testaments, evaluate stories that are seemingly too "fantastical to be true," and critically investigate claims that the Bible is full of contradictions. The goal of the course is to encourage students not to shy away from critically evaluating the content of their Bible(s), while simultaneously working to augment their faith as they work to understand that "[God's] word is Truth" (NASB, John 17:17) and "shall not return [...] void" (NKJV, Isaiah 55:11).
Elective- 2.5 credits
Prerequisite: Sophomore-Senior

Genetics

Genetics is the science of heredity and is understood today at the molecular level. The application of this understanding holds much promise, some of which has already borne fruit in the areas of human health and agriculture. But there are also many difficult questions and choices that are being forced on us as this field expands and develops. These demand close scrutiny in the light of God's word, making this course especially relevant to young Christians. The topics covered are "classical" (Mendelian) genetics, the structure and function of the gene, and genetic engineering. The course is lab-oriented and also considers inherited illness and some of the potential therapies being explored in modern genetic research.
Elective-2.5 credits
Prerequisite: Biology, Junior-Senior

Introduction & History of Philosophy

This course will examine the major aspects of philosophy (metaphysics, epistemology and ethics) and the history and flow of philosophy in order to understand the major figures and movements in Western thought. This class will be taught in a seminar format with readings, discussions and writing being the main focus. Students will be challenged to consider how the "Great thoughts" compare and contrast to a Christian worldview.
Elective-2.5 credits
Prerequisite: Sophomore-Senior

Microsoft Excel for Business
This half year Microsoft Excel 2016 Essentials course shows students how to get the most out of Excel features to work effectively and efficiently with workbooks, worksheets, formats, numeric and text functions, and charts. This course breaks it down into bite-sized pieces and teaches it in plain English. Course starts with the absolute basics, creating and saving a new workbook. The course proceeds step by step through the process of entering data in cells, doing basic math, formatting your worksheets, setting up pages for printing and applying basic mathematical formulas. Students move to more advanced formatting with themes, using Excel provided templates, adding graphics and charts, and using Excel as a database. Students finish off with advanced formulas, and applying conditional formatting to their worksheet. Students will be able to perform calculations, and create professional graphs and charts from their data. At the completion of this course, students, who will be involved in the day to day business operations, will be able to prepare and present Microsoft Excel spreadsheets that are required in the business world.
Elective-2.5 credits
Prerequisite: Intro to Business/Management, Sophomore-Senior

Music Composition 1
This one-semester course aims to introduce students to the practice of songwriting through workshop-formatted classes. Students will explore the ingredients of song including lyrics, melody, rhythm, harmony, form, texture, timbre, and arrangement. Students will learn these concepts through practical the skills of listening, analysis, experimentation and performance. Due to the heavy emphasis that will be placed on sharing songwriting ideas with classmates, students will need to have already acquired at least a basic set of performance skills in vocal music and an accompanying instrument (either piano or acoustic guitar). Students will be introduced to noted songwriters in American music as well as hear first-hand from local songwriters about their creative process. Lyric journaling as a discipline for songwriters will be a major component of the course and students should expect to be writing lyrics on a daily basis. Students will also learn the value of collaboration with and feedback from other songwriters. The final project of the course is a personal recording of a song composed by each student.
Elective: 2. 5 credits
Prerequisites: Assessment of basic vocal performance skills and instrument accompaniment by the Music Teacher