Common Course Outline
MUSC 110
Survey of Music and Audio Technology with Applications
3 Credits

Community College of Baltimore County

Description

MUSC 110 – Survey of Music and Audio Technology with Applications explores emerging applied software applications in audio technology as tools to generate, present, collaborate, and share for education, employment, and personal enrichment, while learning how to use computers to effectively solve problems. Students will manage and organize audio files, apply information literacy skills to research, present course materials, develop solutions to work-place problems, develop an appreciation for music from a variety of musical styles, genres, and cultures, and identify ethical practices in the field of audio technology, with particular emphasis on computer based integration of applications, file formats and organization, and web-posting and sharing technologies.

3 Credits

Prerequisites: ACLT 052

Co-requisite: MATH 081

Overall Course Objectives

Upon completion of this course students will be able to:
1. demonstrate an understanding of the components and basic structure of a modern computer system (RAM, storage, processing, operating systems, applications, hardware);
2. demonstrate an understanding of the nature and properties of sound, and the ways it can be created, measured, shaped and manipulated, stored, and transmitted;
3. trace an audio signal as it flows within and between digital and analog audio equipment;
4. demonstrate, in writing and through class discussion and collaborative activities, the basic use and setup of analog and digital sound systems;
5. use a Digital Audio Workstation and mobile apps to complete recording projects that demonstrate an understanding of and appreciation for music from a variety of cultures, genres, and styles;
6. demonstrate, through projects and collaborative class activities, a basic application of digital editing and mixing, with attention to musical differences in style, genre, and cultural characteristics;
7. demonstrate a working knowledge of web posting options (YouTube, Facebook, Soundcloud, etc.), and audio formats suitable for these applications;
8. demonstrate a basic application of music notation software;
9. create original musical content through the following means: Digital Audio Workstation software, MIDI (Musical Instrument Digital Interface) sequencing, and music notation software;
10. identify risks, threats, and vulnerabilities of computers and mobile devices, and examine mitigation solutions;

11. find, evaluate, use and cite academic resources in the discipline of audio and/or music technology; and
12. discuss ethical and legal issues in the capture, manipulation, and transmission of pre-existing sound or music.

Major Topics
I. Fundamentals of computer components and use
II. Fundamentals of computer file handling, storage, and organization
III. Fundamentals of sound
IV. Audio terminology
V. A historical perspective of sound recording technology; inventions and recording practices, styles, genres, and philosophies that shape our current technological landscape
VI. Integrating digital and analog technologies
VII. Mobile audio apps
VIII. Moving digital signals and files between applications
IX. Digital signal processors (DSP) and effects
X. Digital media formats, possibilities, and limitations
XI. Overview of the Digital Audio Workstation
XII. MIDI and Digital Audio Workstation applications
XIII. Music notation programs
XIV. Security
XV. Ethical and legal use of audio recording and editing technology

Course Requirements

Grading procedures will be determined by the individual faculty member but will include the following:

Grading/exams
- Attendance and class participation
- At least 3 Unit quizzes
- At least two projects demonstrating applied skills
- Final exam and/or project

Written Assignments: Students are required to use appropriate academic resources.

Multiple assignments will infuse CCBC General Education Program objectives; at least one assignment worth a minimum of 10% of the total course grade will allow students to demonstrate at least 5 of the 7 General Education Program outcomes:

1. Written/oral communication;
2. Critical analysis and reasoning;
3. Technological competence;
4. Information literacy
5. Scientific and quantitative or logical reasoning;
6. Local and global diversity; and
7. Personal and professional ethics.

Other Course Information

1. This course is an approved General Education course in the Information Technology category. Please refer to the current CCBC Catalog for General Education course criteria and outcomes.
2. Students must have regular access to a computer, the internet, and a Smart phone for the downloading and use of apps.

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