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**Syllabus**

**I. General Course Information**

Course Code: 05071 (1st Semester) 05072 (2nd Semester)

Course Title: CTE Audio Production

Department: Career & Technical Education (CTE)

School Level: High School

Grade Level: 10th - 12th grade

Primary Credit Type: Elective

Prerequisites: None

Duration: Yearlong

Credits per Duration: 5 credits per semester

Maximum Duration: 1 year

Grading: Honors (Concurrent Enrollment with CCCS courses MUS 161 and MUS 163)

**II. Course Description**

 Semester 1 (05071): This course introduces students to the Digital Audio Workstation, current practices with MIDI instruments, MIDI sequencing, MIDI editing, music notation programs.

Semester 2 (05072): This course is designed to give students a basic understanding of the Music Production process. This includes the basic knowledge of audio/music production, the fundamentals of sound and microphone, digital and analog technology, recording, and mixing.

**III. Course Outline**

**Semester 1:**

1. Audio Software
	1. Digital Audio Workstations – Logic Pro
	2. MIDI concepts
	3. Sequencing and Editing
	4. Using Audio and MIDI Loops
	5. Syncing sound and picture
	6. Understanding basic music notation software
	7. Using music notation software to produce score and parts
2. Fundamental Principles of audio production
	1. Sound waves
	2. Overtones
	3. Acoustics
	4. Amplitude
	5. Equal loudness contours

**Semester 2:**

1. History of recorded sound and the impact of recorded sound on the music industry
	1. Historical events
	2. Leaders in the field
	3. Roles in the studio recording process
2. Sound System Basics
	1. Signal flow
	2. Cable types and connectors
	3. Mixer configurations
	4. Microphone types and functions
3. Signal Processing
	1. Dynamics: compressors and limiters
	2. Equalization and filters
	3. Reverb, delay and echo
	4. De‐essing
4. Studio Equipment
	1. Preamplifiers
	2. Converters
	3. Studio microphones
	4. Patchbay
	5. Cables
5. Studio Recording Process
	1. Session techniques
	2. Mixing and Mastering
	3. Microphone placement
6. Music Business
	1. Budgets
	2. Equipment maintenance
	3. Career options
7. Applications
	1. CD production
	2. Genre specific recording and mixing
	3. Music forms
	4. Song analysis and construction

**IV. Standards and Assessments Coding**

**CTE Content Standard**

AVTF.01 Analyze and explain the foundations in audio, video and film as related to current industry standards and trends.

AVTF.01.01 Understand the concepts, principles, elements and techniques of audio, video and film production.

AVTF.01.02 Use available equipment, tools and techniques as associated with audio, video and film production.

AVTF.01.03 Apply historical and cultural context as related to audio, video and film production.

AVTF.02 Understand and demonstrate technology and process related to audio/video technology and film.

AVTF.02.01 Demonstrate the planning process.

AVTF.02.02 Apply project implementation.

AVTF.02.03 Understand and apply finalization techniques.

AVTF.03 Know and understand the scope of career opportunities and qualifications in the audio/video and film industry to build an understanding of career opportunities and options.

AVTF.03.01 Investigate career opportunities.

AVTF.03.02 Cultivate necessary workplace skills.

**Postsecondary & Workforce Readiness and Essential Skills**

PWR.01.01.e - Employ standard English language properly and fluently in reading, writing, listening, and speaking

PWR.01.02.b - Understand and apply algebraic and geometric concepts and techniques

PWR.01.02.d - Apply knowledge of mathematics to problem solve, analyze issues, and make critical decisions that arise in everyday life

PWR.01.04.a - Identify and describe historical, social, cultural, political, geographical, and economic concepts

PWR.01.04.e - Interpret information from a global and multicultural perspective

PWR.01.05.a - Understand and appreciate how the arts and humanities (expressions of culture and identity through language, movement, sound, and visual representation) contribute to and shape culture and our understanding of culture

PWR.01.05.b - Understand how the arts and literature are used as instruments of social and political thought

PWR.01.05.c - Identify leading innovators in the arts and humanities and the contributions they have made to their respective art forms

PWR.02.02.a - Select, integrate, and apply appropriate technology to access and evaluate new information

PWR.02.03.a - Demonstrate intellectual curiosity

PWR.02.03.b - Generate, evaluate, and implement new ideas and novel approaches

PWR.02.04.a - Appreciate the arts, culture, and humanities

PWR.02.04.b - Interact effectively with and respect the diversity of different individuals, groups, and cultures

PWR.02.05.c Balance personal freedom with the interests of a community

PWR.02.06.a - Plan and prioritize goals

PWR.02.06.b - Manage time effectively

PWR.02.06.g - Demonstrate flexibility and adaptability

PWR.02.07.f - Demonstrate awareness of and evaluate career options

PWR.02.09.a - Work effectively with others

PWR.02.09.c - Cooperate for a common purpose

PWR.02.09.d - Use teamwork and leadership skills effectively

**Academic Alignment with Math, Science, Reading, Writing and Communication (CCSS, CAS)**

MA10-GR.HS-S.1-GLE.2-EO.a - Reason quantitatively and use units to solve problems (CCSS: N-Q)

MA10-GR.HS-S.4-GLE.5-EO.a - Apply geometric concepts in modeling situations. (CCSS: G-MG)

RWC10-GR.10-S.1-GLE.2-EO.a - Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively. (CCSS: SL.9-10.1) a.i-Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful,

RWC10-GR.10-S.4-GLE.1-EO.a - Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. (CCSS: W.9-10.7)

RWC10-GR.10-S.4-GLE.1-EO.b - Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation. (CCSS: W.9-10.8)

RWC10-GR.10-S.4-GLE.1-EO.d - Identify and evaluate potential sources of information for accuracy, reliability, validity, and timeliness

RWC10-GR.11-S.4-GLE.2-EO.b - Evaluate strengths and weaknesses of their logic and logic of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic and precision

RWC10-GR.11-S.4-GLE.3-EO.b - Assess strengths and weaknesses of thinking and thinking of others by using criteria including relevance, clarity, accuracy, fairness, significance, depth, breadth, logic, and precision

RWC10-GR.12-S.2-GLE.2-EO.b - Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem. (CCSS: RI.11-12.7)

**V. Additional Course Information**

Fees: Determined by School

Materials: Determined by School

Textbooks: Determined by School

Resources: Determined by School

**VI. Final Notes**

This course is designed to qualify for Concurrent Enrollment with Arapahoe Community College - MUS 161 and MUS 163