Collegiate San Mateo  
Official Course Outline

1. **COURSE ID:** DGME 118  
**TITLE:** Digital Audio Production  
**Units:** 3.0 units  
**Hours/Semester:** 48.0-54.0 Lecture hours; and 16.0-18.0 Lab hours  
**Method of Grading:** Grade Option (Letter Grade or P/NP)  
**Recommended Preparation:**  
Eligibility for ENGL 838 or ENGL 848.

2. **COURSE DESIGNATION:**  
Degree Credit  
Transfer credit: CSU

3. **COURSE DESCRIPTIONS:**  
**Catalog Description:**  
Students get hands-on experience in audio production and the basic operation of professional audio equipment. Covers basic microphone techniques, recording in the studio and field, and broadcast production. Students will gain a practical understanding of digital audio recording, mixing, and editing. Includes an introduction to digital audio editing using Pro Tools or equivalent software.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**  
Upon successful completion of this course, a student will meet the following outcomes:  
1. Explain sound fundamentals and common audio aesthetics  
2. Describe radio programming practices and the production needs of a radio station  
3. Demonstrate ability to record  
4. Demonstrate basic audio mixing  
5. Demonstrate proper microphone selection and placement for various recording situations

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**  
Upon successful completion of this course, a student will be able to:  
1. Demonstrate ability to record  
2. Explain sound fundamentals and common audio aesthetics  
3. Demonstrate basic audio mixing  
4. Demonstrate proper microphone selection and placement for various recording situations

6. **COURSE CONTENT:**  
**Lecture Content:**  
- Introduction to Sound (SLO 1)  
  - Hearing and sound perception  
  - Sound waves, properties, interaction  
  - Elements of sound  
  - Audio aesthetics  
- Radio Station Practices (SLO 2)  
  - Audio production for radio stations  
  - Audio for radio specifications  
  - Radio programming, station formats (a station's "sound")  
- Radio today: internet radio, satellite radio, terrestrial broadcast, HD radio  
- Microphones (SLO 4)  
  - Transduction and diaphragms  
  - Types of Mics: dynamic, condenser, ribbon, crystal  
  - Directional Properties and pick up patterns  
  - Frequency Response  
  - Mic Level vs Line Level  
- Recording (SLOs 3 & 4)  
  - Analog to Digital  
  - Mic selection & positioning  
  - Acoustics  
  - Types of recording equipment and formats  
  - Studio recording
Field recording
Mastering
Mixers (SLO 3)
  • Input Channels: Gain/Attenuation, Phantom Power, EQ, Aux, Pan, Solo, Slider
  • VU Meter & PPM, monitoring
  • Subgroups
  • Outputs
Controlling sound (SLO 3 & 4)
  • Distortion and Feedback
  • Equalization
  • Processing, Compression, Limiting, Expansion
  • Audio Effects: Reverb, Phasing, Flanging, Chorus
Editing (SLO 3)
  • Types of digital audio files
  • Audio editing, making sound visual
  • Audio editing software
  • Cutting, Fading, Crossfades

Lab Content:
Lab time is used for hands-on training in operating professional audio equipment for recording, mixing, and editing. Students also use lab time to complete production assignments.

7. REPRESENTATIVE METHODS OF INSTRUCTION:
Typical methods of instruction may include:
A. Lecture
B. Lab
C. Other (Specify): I. Lecture will introduce new material and concepts to the students and provide a survey of radio industry operational practices and programming. One half of the lecture time is done in a Smart classroom. This allows the instructor to use audio/visual examples and discuss overarching audio principles
2. Demonstration: the second half of lecture is done in the recording studio and audio labs to demonstrate the appropriate use of mics, and recording and mixing equipment. 3. Readings will reinforce and/or supplement lecture information 4. Production lab assignments: lab time will be completed in audio labs in, where students will apply their learning in production assignments, using professional audio equipment and computer applications. 5. Studio recording assignments: students will be required to set up and record a studio-based performance (controlled environment) 6. Field recording assignments: students will record natural sound and interviews in a uncontrolled environment 7. Lessons in aesthetics: assignments will include application of audio aesthetics 8. Reflection essays on audio production experience and self-assessment of skills

8. REPRESENTATIVE ASSIGNMENTS
Representative assignments in this course may include, but are not limited to the following:
Writing Assignments:
  Studio recording assignments: students will be required to set up and record a studio-based performance (controlled environment)
  Field recording assignments: students will record natural sound and interviews in a uncontrolled environment
Reading Assignments:
  Readings will reinforce and/or supplement lecture information. Readings may be from a textbook, handout, or online.

9. REPRESENTATIVE METHODS OF EVALUATION
Representative methods of evaluation may include:
A. Class Work
B. Exams/Tests
C. Homework
D. Lab Activities
E. Projects
F. Quizzes
G. 1.Exams on key information and concepts in audio production and radio programming 2.Hands-on testing of skills in microphone selection, set-up and placement, recording, and operating mixers 3.oral presentation of ideas and expression of independent views 4.Participation in small group projects 5.Radio
production assignments will be evaluated by instructor and assessed for improvement and skill mastery in recording, mixing, and editing. Informal writing in the form of critiques of radio programming.

10. **REPRESENTATIVE TEXT(S):**
   Possible textbooks include:
   Other:
   A. A free, online text has been adopted: http://www.mediacollege.com/audio/
   B. MediaCollege.com is a free educational website containing tutorials, reference and other resource material in all areas of electronic media production.

   **Origination Date:** November 2014
   **Curriculum Committee Approval Date:** January 2015
   **Effective Term:** Fall 2015
   **Course Originator:** Kevin Henson