CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA
[CLASS]
[MUSIC]
Expanded Course Outline

Course Subject Area:	**MU**
Course Number:	**4280**
Course Title:	**Music Mastering, Editing, and Delivery**
Units:	**3**
C/S Classification #:	**04**
Component:	**Lecture**
Grading Basis: (graded only, CR/NC only, student's choice)	**Graded only**
Repeat Basis: (may be taken once, taken multiple times, taken multiple times only with different topics)	**Taken once**
Cross Listed Course: (if offered with another department)	
Dual Listed Course: (if offered as lower/upper division or undergraduate/graduate)	
Major course/Service course/GE Course: (pick all that apply)	**Major course**
General Education Area/Subarea: (as appropriate)	
Date Prepared:	**3/31/15**
Prepared by:	**Arthur Winer**

I. Catalog Description

Advanced exploration of the principles and practices of music audio mastering. Group projects explore critical listening, noise reduction, continuity, sweetening, gain structure, dynamics processing, psychoacoustics, editing, fades, Fletcher & Munson loudness curves, and other topics related to audio mastering.

II. Required Coursework and Background

Prerequisite: MU 328 or MU 3281

III. Expected Outcomes

1. Demonstrated knowledge of technical, aesthetic and practical elements of music mastering.
2. Achieve a working knowledge of mastering procedures specific to musical genres and formats.
3. Achieve a realistic understanding of the functional scope of the mastering process.
4. Demonstrate proficiencies in delivering content to all mediums covered.

The outcomes of this course relate to the following Music Department Student Learning Outcomes:

#2: Communicate effectively--verbally and in writing--about specific musical works and musicians, about the creative process in music, and about music's role in human culture.
#3: Demonstrate musicianship skills (including those involving technology) and conceptual understandings.
#5: Articulate a holistic understanding of the many influences on any musical endeavor (e.g., cultural, artistic, technological, economic, etc.).
#6: Develop specialized knowledge appropriate to the option or emphasis area.

BA in Music:
#3. **Communicate effectively**--verbally and in writing--about specific musical works and musicians, about the creative process in music, and about music's role in human culture.
#4. **Demonstrate** creativity, musicianship skills, an understanding of appropriate technology, and conceptual understandings.

BA in the MIS Option:
#1. **Interpret** relationships between music and: commerce; technology; media; and audience.
#2. **Articulate** fundamental understanding of entrepreneurship and standard music industry practices.

BM in Music:
#1. **demonstrate** a high level of musicianship that facilitates independent preparation of music for performance.
#2. **utilize** current/recent technologies appropriate to the musical endeavor.

IV. Instructional Materials

Cousins, Mark and Russ Hepworth-Sawyer. *Practical Mastering: A Guide to Mastering in the Modern Studio.* New York: Focal Press, 2013.

Katz, Bob. *Mastering Audio: The Art and the Science.* 2nd Ed. New York: Focal Press, 2002.

Owsinski, Bobby. *The Mastering Engineer's Handbook.* 2nd Ed. Vallejo: ArtistPro, 2008.

V. Minimum Student Material

Headphones, blank CD-Rs, blank DVD-Rs,

VI. Minimum College Facilities

1. Control room/class room large enough to accommodate monitoring equipment, instructor and seated students. Avid ProTools HD hardware & software (or

equivalent). Computer system compatible with Avid hardware. Two hard drives. Two computer monitors. Internet access. Off-site server accessible via Ethernet for backing up audio data. Mixing console and/or digital audio workstation controller. Other signal processing equipment. Monitoring systems (speakers, amplifier and gain controller). Studio furniture including computer noise-isolation, equipment racks, speaker stands, console table, and chairs for instructor and students. Analog and digital cabling including patch-bay.

2. Blackboard (or equivalent) on-line site.

VII. Course Outline

1. Introduction and overview of audio mastering for music.
   a) Relative loudness adjustments
   b) Absolute loudness adjustments (Fletcher and Munson loudness curves)
   c) Noise reduction
   d) Fade-ins, fade-outs and cross-fades
   e) Dynamics signal processing (compression/limiting, expansion/gating)
   f) Other signal processing (subtractive vs. additive equalization; delay and reverberation)
   g) Mid-side and other advanced mastering techniques
   h) Dithering down from high to low bit depths
   i) Assembly of CD premaster and DDP Image
   j) Duplication
   k) Mastering for other media
2. Mastering Project I (noise reduction)
3. Mastering Project II (before and after demonstration CD)
4. Mastering Project III (multiple song demonstration CD)
5. Paper and presentation project.
6. Mastering Project IV (full-length CD)

VIII. Instructional Methods

Classes will be taught via lecture, demonstration and hands-on student experiences.

IX. Evaluation of Outcomes

Hands-on group projects.
Paper and presentation.