COMMON COURSE OUTLINE: Course discipline/number/title: MUSC 1621: Audio Production I

A. CATALOG DESCRIPTION
1. Credits: 3
2. Hours/Week: 6
3. Prerequisites (Course discipline/number): None
4. Co-requisites (Course discipline/number): None
5. MnTC Goals (if any): NA

This course is the first of a two part "hands-on" introduction to the world of contemporary music recording technology. This course is a core-curriculum course for the "Digital Arts" program as well as for potential transfer students wishing to attain a Bachelor of Music-Recording Engineering degree. The student will learn basic terminology and practice of contemporary recording theory and practice. The student will be given individual studio time for production practice in Studio A or B.

B. DATE LAST REVISED (Month, year): December, 2007

C. OUTLINE OF MAJOR CONTENT AREAS:
1. Introduction
   a) Basic Terminology
   b) The recording Studio
   c) The control Room
   d) Multi-track recording
   e) Professions and occupations
2. The Transducer
   a) Speakers
   b) Microphones
   c) Concepts and applications of the above
3. The Science of Sound
   a) Sound Pressure waves theory
   b) Waveform Characteristics
   c) Reflection of Sound
   d) Diffraction of Sound
   e) Frequency Response
   f) Phase
   g) Harmonic content
   h) Acoustic envelopes
   i) Loudness levels
   j) The ear
   k) Auditory perception
   l) Application of the above
4. Microphones
   a) Microphone Designs
   b) Microphone Characteristics
   c) Microphone Techniques
   d) Microphone Placement
   e) Microphone Selection
   f) Application of the above
5. Digital Audio Technology
   a) Basic Concepts
   b) Recording Concepts
   c) The Audio Recording Software environment
   d) Hard Drive recording
   e) RAM recording
   f) Sampling
   g) Quantization
   h) Reproduction Process
   i) Digital Audio Systems
C. OUTLINE OF MAJOR CONTENT AREAS: Continued...
   j) Sampling Systems
   k) Application of the above
6. Multimedia/Audio and the Web
   a) Multimedia environment
   b) Hardware
   c) Software
   d) The web
   e) Media types
   f) Streaming audio
   g) Compression
   h) Application of the above
7. Amplifiers
8. The Audio Production console
   a) Recording
   b) Overdubbing
   c) Mixdown
   d) Console Description
   e) Digital Console Technology
   f) Automation
   g) The Art of Mixing
   h) Application of the above
9. Signal Processing
   a) Equalization
   b) Dynamic Range
   c) Digital Signal Processing
   d) Application of the above
10. CD and CD-ROM production
11. Artist contact and project coordination
12. Projects
   a) Multi-track sound collage
   b) CD creation and Streaming Audio for the web
   c) Audio production for video footage
   d) Multi-track live audio mix
13. The Creation process in Audio Production
   a) What to listen for
   b) Creating form in audio composition
   c) Aesthetic consideration in audio creation
14. The Audio Critique
   a) Articulation of the audio critique
   b) Critique of each of the four assignments
15. Historical Perspective of Audio Creation
   a) Technical advancements
   b) Artistic decision-making process perspective
   c) Listening and Critique

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
Demonstrate understanding of the technical and artistic basics of production of audio. The student will demonstrate understanding of: basic terminology, the science and art of sound, audio and multimedia, basic studio operations, multi-track audio recording, audio production of the web, mixing process, audio processing, individual and team project creation.

E. LEARNING OUTCOMES (MNTC): NA

F. METHODS FOR EVALUATION OF STUDENT LEARNING:
1. Objective and short answer tests
2. Essay Tests
3. Small Projects
F. METHODS FOR EVALUATION OF STUDENT LEARNING: Continued...
4. Larger, short term projects
5. Portfolio, long term projects
6. Skill performance

G. SPECIAL INFORMATION (if any):
Tuition differential