MUSC 2448 Audio Engineering IV, Syllabus Addendum, McLennan Community College, Waco, TX

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WHAT IS THIS COURSE?

Studio Production is the fourth and final semester Audio Technology course in which sophomore audio students are able to complete their study of recording skills. This course consists of lecture sessions and a practicum laboratory in which students can integrate the materials and equipment covered by the lecture. This Syllabus Addendum contains the details of how this class will be conducted, the competency assignments, and the other necessary information needed to successfully complete this class.

Be sure to visit the student link at http://www.ranchstudio.com regularly to access updated information and other helpful audio resources.

Periodical reading and reports will be from *Mix magazine, EQ magazine, Electronic Musician Magazine*.

ATTENDANCE POLICY:

Because of the technical nature of this course, tardiness or missed classes will seriously jeopardize your chances of success. If you experience a true emergency and must miss a class, contact the fine arts office. Your attendance will affect your grade as follows:

3 tardy = 1 absence
Accumulated absences will result in a proportional lowering of the student's grade.
25% absence will result in the student being dropped and\or failed, see the MCC official Attendance Policy.

GRADING POLICY:

A student's grade will be the cumulative total of the following criteria:
70%   Performance on the objectives.
30%   Attendance, professional attitude and conduct, Completion of live performance reviews, evaluated by instructor's observation.

The grading scale used in this class is:
A=90-100%
B=80-89%
C=70-79%

D=60-69%
F=BELOW 60%

OFFICE HOURS:

I will be glad to help you outside of class-time. I have regular office hours posted outside of my office. Many times I am meeting with someone else in the studio or elsewhere during these hours, so be sure to make an appointment with me or leave a message for me with the secretary in the PAC office.

Check in at http://www.ranchstudio.com/MccStudents.htm regularly to have access to all of the forms, syllabi, and other helpful audio information.

COMPETENCY and OBJECTIVES

The following **competencies** outline the purposes of this course. The **objectives** are the specific activities that we will carry out.

Competency 1 Develop advanced skills in trouble shooting, maintenance and repair of audio electronic equipment.

Objective: Maintain studio equipment to peak performance level.

Objective: Perform repairs of cables and circuit components.

Objective: Analyze ground faults, and continuity problems using a Volt Ohm-Milliammeter and Oscilloscope.

Objective: Repair and fault find audio equipment.

Source:Class lecture \ lab

Evaluation: projects, 80% mastery required

Competency 2 Demonstrate advanced interfacing of audio equipment.

Objective: Implement correct application of balancing, unbalanced, level matching.

Objective: Isolate and correct ground potential differences in interconnections.

Objective: Identify, isolate and correct the sources of hum and noise in an audio system.

Source:Class lecture \ lab

Evaluation: Projects; 80% mastery required

Competency 3 Develop advanced skills in performing live 2 track recording.

Objective: Select and maintain the equipment needed to do live two track recording.

Objective: Exhibit good practice in microphone and equipment operation and placement.

Objective: Record live 2 track recordings.

Source:Class lecture \ lab, and handouts

Evaluation: Performance of live 2 track recordings, 100% mastery required

Competency 4 Develop necessary knowledge to do advanced recording and editing of DAW recording systems.

Objective: Perform recording sessions and manipulate audio and midi tracks to create

release quality audio recordings using Digital Audio Workstations.

Objective: Perform mastering and editing of complete audio projects using DAW.

Objective: Demonstrate proper equipment utilitization and session procedures using DAW recording workstation..

Source:Class lecture \ lab

Evaluation: Demonstration of skills; 80% mastery required

Competency 5 Develop necessary knowledge to tune-up and optimize computer-based recording systems.

Objective: Explain operation of audio interfaces integration with DAW systems.

Objective: Set up audio – digital interface input, output, and monitoring systems.

Objective: Record high quality audio input sources.

Source:Class lecture \ lab

Evaluation: Demonstration of skills; 80% mastery required

Competency 6 Demonstrate advanced engineering skills in audio recording sessions.

Objective: Plan, allocate and follow through with externally imposed time budgets.

Objective: Direct and supervise efficient studio planning and setup\teardown.

Objective: Identify and Contrast microphone\input quality with desired sound.

Objective: Analyze comprehensive multiple signal flow problems, and respond effectively.

Objective: Advanced operation of console and patchbay functions; Setting optimum levels throughout signal chain, and on the recorded medium.

Objective: Maintain principles of diplomacy, maintain professional work ethics and relationships while in session.

Source:Class lecture \ lab, and hand outs

Evaluation: Demonstration of skills; 80% mastery required

Competency 7 Develop the necessary skills to efficiently operate digital multitrack recorder.

Objective: Perform entire recording sessions from power-up to session archive on the digital multitrack.

Objective: Perform patch, metering, segment allocation, and data manipulation necessary for timely session completion.

Objective: Compile the necessary data records and project, segment labels for recorded projects.

Source:Class lecture \ lab, and handouts

Evaluation: Demonstration of skills; 80% mastery required

Competency 8 Demonstrate advanced MIDI operations in the control room.

Objective: Perform audio triggering for midi devices, and midi control of audio devices.

Objective: Use audio outputs from midi voice modules on recording sessions.

Objective: Use a variety of midi controller input devices.

Objective: Demonstrate and perform SMPTE lockups between midi\audio systems.
Source:Class lecture \ lab, and hand outs
Evaluation: Demonstration of skills; 80% mastery required

Competency 9 Develop advanced skills in Programming midi devices.
Objective: Perform master settings editing, channel editing, voice editing, system exclusive dumps.
Objective: Demonstrate recording of programmed modules and voices (pan, level, channel, audio outputs, primary and secondary voice manipulation, sysex dump-restore).
Source:Class lecture \ lab, and hand outs
Evaluation: Demonstration of skills; 80% mastery required

Competency 10 Demonstrate advanced skills in Computer sequencing.
Objective: Perform manipulation of input ports, output ports, channel allocation, midi interface, for computer sequencing.
Objective: Perform multiple channel midi computer sequencing, editing, midi volume changes, patch changes, pan changes, system exclusive dumps.
Objective: Demonstrate in recording session, midi and SMPTE synchronization of a sequencer to audio recorders.
Source:Class lecture \ lab, and hand outs
Evaluation: Demonstration of skills; 80% mastery required

Competency 11 Demonstrate advanced digital audio editing.
Objective: Compile multiple takes into an edited final "comped" track.
Objective: Perform multiple track editing and transitions on recording sessions.
Objective: Master a multiple song demo.
Objective: Perform sessions with manipulation of multiple tracks of digital effects and EQ.
Objective: Perform virtual mixing, track bouncing, automated levels, punch ins.
Objective: Demonstrate set-up, speed and agility in automating virtual mixes.
Source:Class lecture \ lab, and hand outs
Evaluation: Demonstration of skills; 100% mastery required

Competency 12 Review information from audio trade periodicals.
Objective: Summarize procedures, trends, or technical information presented in articles from trade publications.
Source:Audio trade periodicals (Mix magazine, EQ magazine, Electronic Musician Magazine)
Evaluation: Monthly report due; 80% mastery required, must be typed and grammatically correct.

Competency 13 Develop audio critical listening skills.
Objective: Analyze recordings of student's choice, identifying techniques, procedures, sound sources, instrumentation.

Source:Student provided commercial recordings.
Evaluation: Monthly oral report due; 80% mastery required

Competency 14 Demonstrate professional conduct.
Objective: Demonstrate regular attendance, promptness, adequate preparation, willingness to volunteer, the ability to deal with difficulties, work with groups, and deal with adversity.
Source:Skills demonstration.
Evaluation: Classroom observation by instructor; 80% mastery required

Competency 15 Develop music business networking skills and co-lateral relationships.
Objective: Practice regular attendance to other artist's live performances, and share your experiences with other music business people. Each student is required to attend and review at least five live performances of MCC students/faculty each semester. You must hand in at least five written reviews of the concerts or performances that you attend. Details are at http://www.ranchstudio.com/MccStudents.htm
Source:Skills demonstration.
Evaluation: 5 Reviews handed in to instructor; 80% mastery required

Students in the McLennan Community College Music Industry Careers Audio Technology Program are learning to operate Digital Audio Work stations (DAW's), as well as analog devices. They are required to do the majority of their out-of-class work and projects on a DAW capable computer. In order to complete their assignments, they must have access to a DAW capable computer outside of the classroom. The need for a personal computer is required in order to complete the assignments. It is recommended that the DAW audio computer should be dedicated to the audio recording function, and not used for other non-audio tasks, in order to maximize operation reliability and speed.