DESN 498/385 Advanced Digital Sound Design – Syllabus *Prerequisite DESN 275*

Instructor Dr. James Braukmann, jbraukmann@ewu.edu, CEB 335, 359-2437

Course Description

This course provides in-depth experience in digital sound editing techniques and related hardware and software, including live and studio recording techniques, multi-track mixing, mastering, and the design and creation of sound tracks, including music, to support and enhance typical media productions. Group and individual projects will be required.

The course will meet for three hours per week of lecture, critiques and guided interactive demonstrations, and two hours per week for guided laboratory work. Appropriate systems are provided in the classroom/lab. Assignments will require access to computers with specific software installed and occasionally specific hardware installed. CEB labs will be available to students for homework assignments on most days, including weekends. Keycard access will be available.

Students are encouraged to acquire their own headphones. Please consult the instructor, as most consumer headphones tend to produce poor mixes.

Assignments and Tests

Assignments will be given weekly or every other week. Quizzes will be given often. Grading will be based 50% on production work, 10% on critique involvement, 5% on attendance, and 35% on quiz and final exam scores. Grading will follow EWU standards, with 97% points = 4.0

Text 1 Owsinski, B. *Mixing Engineer's Handbook, 2nd Ed. Thomson Course Technology*
Text 2 Cancellaro, *Sound Design for* Interactive Media. Other reading resources will be web-based or supplied by the instructor.

Projects

In addition to the assigned projects, each student is required to propose, plan and complete one individual major project and one minor project. Examples of major projects would include creating CD master quality recordings of a small or large ensemble in a venue (two or three numbers); creating a multi-track demo recording for an individual or group; creating a sound track for a video; creating a competitive cheer soundtrack; creating a set of sounds for a video/computer game; and so on. Examples of a minor project would include recording a narration for a podcast; creating a music track for a larger soundtrack production; and so on.

Turning in Assignments

Due to the large size of digital audio files, we will use FTP to turn in assignments. The host site is ***www.drbraukmann.com***. The username is ***stus*** and the password is ***(to be announced in class)***. Suggested free software you can use is *COREFTP* for Windows, and *Fetch* for Macs. An option is to burn a CD to give to your instructor.

***Topical Outline*: This course will provide instruction on now how to…**

1. Establish a bench mark standard system for listening and mixing - speakers and room - RTA and EQ system setup - troubleshooting

2. Record in the studio - part 1 utilizing simple vocal tracks - using typical microphones - miking techniques - optimizing levels at every interface: source to mic, mic to preamp input, preamp gain, channel gain, send level, input level gain, track volume - hardware compression - troubleshooting

3. Record in the studio - part 2 utilizing multiple tracks - miking techniques for various instruments - latency - click tracks - microphone or direct input box? Cabinet emulation device? -troubleshooting

4. Record live performances - stereo miking techniques – accent miking - capture or recreate the sound of a good performance venue.

5. Understand sound design for film and video - including terminology and planning - utilizing soundmaps, leitmotifs, themes, metaphors - understand the categories of sounds used in film: diegetic, nondiegetic, synchronized, false-synchromized, acousmatic, sound sculptures, on-track and off-track sounds.

6. Add sound to video - use video editing software - surround sound.

7. (Concurrent with all of above) Mix multi-track projects utilizing panorama, dimension, equalization, dynamics, and interest

8. (Concurrent with all of above) understand mastering processes - listen critically - develop standards

9. (Concurrent with above) understand optimizing files - file types for different media such as video, games, podcasting, etc.

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