

Syllabus: MTEC 275, Fundamentals of Audio Engineering

Instructor:

Andrew Garver

E-mail: garver@usc.edu Add "MTEC 275" to the Subject

Mailbox: TMC 118

Office: TMC 107 {or MUS 103}

Office Hours: Tuesday and Thursday by appointment

Text: Huber and Runstein, *Modern Recording Techniques (optional)*

Other resources: <http://www.soundonsound.com/>
<https://blackboard.usc.edu> (Lynda.com)
<http://mixonline.com/>
<http://www.recordingmag.com/>

Course Description:

Fundamentals of Audio Engineering MTEC 275 is a survey of the principles of audio studios, recording, and mixing. Topics include an overview of studio acoustics, microphones, consoles, and other components involved in the recording process. Students will obtain a better understanding of the details involved with making professional-sounding audio. This knowledge is invaluable to anyone interested in working in the entertainment industry. The class consists of a lecture on Tuesday and a lab on Thursday. Make sure you are enrolled for both days.

Requirements, Exams and Grading Information:

Student evaluation in 275 will consist of a variety of work. Take home exercises stressing vocabulary and concepts will be assigned in class, and must be turned in one week later. Lab projects will consist of writing assignments and in-lab demonstrations of concepts discussed. Concise instructions for all exercises will be available at a later date.

Tests will contain mostly short answer or multiple-choice questions. The midterms will cover the topics discussed prior to the test. Only the final exam will be cumulative. Tests must be taken during the scheduled times and cannot be made up at a later date.

Attendance is mandatory and will count towards your final grade, as part of class and lab participation. Because of the importance of hands-on experience with this subject, participation in all classes and labs is the only method of understanding the concepts of this topic. Attendance will be taken at each class, and each absence will be noted. After three absences, your grade will be lowered one-half grade for each additional absence. There is no distinction in this class between "excused" and "unexcused" absences—all will be counted. In the event of a serious situation such as illness that causes you to miss more than three classes in a row, you should contact Professor Garver as soon as possible.

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Throughout the semester, questions about your grades should be addressed immediately. Do not wait until the semester has ended to resolve a grading issue.

Disabilities:

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. The phone number for DSP is (213) 740-0776, <https://dsp.usc.edu>

Academic Integrity:

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. Scampus (scampus.usc.edu), the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: <http://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: <http://www.usc.edu/student-affairs/SJACS/>.

Blackboard:

Course materials, documentation and grades will be posted on Blackboard at <https://blackboard.usc.edu/>. All e-mail correspondence regarding the class will be sent to USC accounts only, so please check yours regularly!

Grading:

1. Assignments and Quizzes	20%
2. 2 Midterm Exams	40%
3. Final Exam	30%
4. Class and Lab Participation	10%

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GRADING SCALE

100 - 94	A
93 - 90	A-
89 - 87	B+
86 - 83	B
82 - 80	B-
79 - 77	C+
76 - 73	C
72 - 70	C-
69 - 67	D+
66 - 64	D
63 - 60	D-
Below 60	F

Class Schedule:

Week	Date	Topic
1	22-Aug	Introduction
2	29-Aug	Studio Design/Monitoring
3	5-Sep	Microphones – Placement, Selection
4	12-Sep	Microphones – Stereo, Phase
5	19-Sep	dB Levels and Amps
6	26-Sep	1st Midterm Exam
7	3-Oct	Consoles Recording/Mixing
8	10-Oct	Consoles Recording/Mixing
9	17-Oct	Analog Tape and Recorders
10	24-Oct	Digital Audio – Review, Dither, Word Clock
11	31-Oct	2nd Midterm Exam
12	7-Nov	Mixing
13	14-Nov	Signal Processing
14	21-Nov	Synchronization
15	28-Nov	Final Review
16	12-Dec	Final Exam 8am