

Instructor

Charles Gutierrez
E-mail: chgutier@usc.edu
Mailbox: TMC G118
Office: TMC G107
Office Hours: TBA - Online

Course Description

As the rolls of musicians, engineers, producers, and music business professionals continue to become more intertwined, it is crucial that music professionals communicate intelligently about what they are hearing. Critical Listening, MTEC 176, is designed to help students develop a comprehensive understanding of audio quality and the musical aspects of audio production. Through selected listening examples, the course will develop the students' listening and problem identification skills, as well as, the specialized vocabulary necessary to offer useful audio critique.

Objectives

Students in Critical Listening will learn how room setup and psychoacoustics impact the way humans perceive sound. Additionally, they will learn to recognize elements of a recording by frequency, amplitude and spatial position; by audio production style and technique; and then effectively combine those skills with an analysis of musical form, instrumentation, arrangement, dynamics, style and other musical characteristics.

Requirements, Exams and Grading Information

Student evaluation will consist of take-home listening exercises, in-class listening quizzes, a midterm exam and final exam. Concise instructions for take-home exercises will be available at a later date. Take-home exercises are due one week after assignment.

Exams will contain both written and listening sections. Please note that the final exam is cumulative. Tests must be taken during the scheduled times and cannot be made up at a later date. **The final exam will be given during the university scheduled final exam time for the class.**

ACADEMIC FINAL EXAM CONFLICT WARNING

Courses taken on Wednesdays from 12PM – 1:50PM may/will have semester Final Exam scheduling conflicts. ***MTEC175 is not affected. All other courses will conflict.*** Student must resolve this issue at least two weeks prior to exam date. This may also include instructors who may choose to move their final exam time outside of USC guidelines and policies.

Attendance is taken each class and will count towards your final grade. After two absences your grade will be lowered one-half grade for each additional absence. Because of the importance of hands on experience with this subject, attendance to all classes is the only method of understanding the concepts of this specialized topic.

Classroom Interference

Any class interference such excessive talking, whispering, technology interference, phones or devices sounding will not be tolerated in any manner. Offending student or students will be asked to leave classroom and not allowed back until an instructor office meeting takes place. Further academic actions may be necessary for offenses.

Recommended Textbooks- wait till first meeting discussion before any purchases

Corey, Jason. *Audio Production and Critical Listening*. Focal Press (2010). (Required)

Huber, David Miles and Runstein, Robert E. *Modern Recording Techniques 8th Edition*. Focal Press (2013)

Everest, F. Alton. *Critical Listening Skills for Audio Professionals*. Cengage Learning (2006).

Thompson, Daniel M. *Understanding Audio: Getting the Most Out of Your Project or Professional Recording Studio*. Berklee Press (2005.)

Grading

1. Participation (in-class and online)	15%	<i>Class Attendances, Blackboard Groups</i>
2. Labs and Project	20%	<i>Training Labs, Song Analysis Project</i>
3. All Module Quizzes	20%	<i>Module Content Assessments</i>
4. Midterm Exam	20%	<i>Comprehensive to Date</i>
5. Final Exam	25%	<i>Online Listening Exam</i>

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

Blackboard and Communication

Course materials, assignments, documentation and grades will be posted on Blackboard at <https://blackboard.usc.edu/>. Please make it a habit to use/check your USC E-mail account. Any E-mails sent to the class will only use your USC E-mail account.

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/departments/departments-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

Class Schedule – (Subject to Instructor Changes)

Module 1 – *Course Introduction:*

How Sound Works

- Frequency
- Levels
- Time
- Harmonics
- Pitch vs. Frequency

Reading: *Modern Recording Techniques* Ch. 2

Module 2 - *Hearing*

- The Ear
- Perception
- Objective and Subjective

Reading: *Modern Recording Techniques* Ch. 2

Module 3 - *Spectral Balance*

- Equalization
- Ranges
- Identifying boost or cut
- Filter Types

Reading: *Audio Production and Critical Listening* Ch. 2

Module 4 - *Audio Dynamics*

- Levels
- Noise
- Distortion
- Compression

Reading: *Audio Production and Critical Listening* Ch. 4

Module 5 - *Audio Imaging*

- Mono
- Stereo
- Surround

Reading: *Audio Production and Critical Listening* Ch. 3

Module 6 - *Room Acoustics*

- Basic Design
- Testing
- Treatment
- Correction

Reading: *Modern Recording Techniques* Ch. 3

Module 7 - Midterm Exam

Module 8 - *Sound and Reflections*

Delay
Phase
Reverb
Creating depth

Reading: Audio Production and Critical Listening Ch. 3

Module 9 - *Monitoring*

Passive Monitors and Amps
Active Monitors
Control
Headphones

Reading: Modern Recording Techniques Ch. 17

Module 10 - *Judging Audio Quality*

Distortion Problems
Stereo Problems
Playback issues
Editing Issues

Reading: Audio Production and Critical Listening Ch. 5

THE FOLLOWING ARE NOT INCLUDED IN REMOTE LEARNING PRESENTATION

Module 11 - *Instrument Identification I*

Drum Set
Percussion
Electrics and Acoustic Bass
Guitars
Keyboards

Reading: Audio Production and Critical Listening Ch. 7

Module 12 - *Instrument Identification II*

Percussion
String
Brass
Woodwinds

Reading: Audio Production and Critical Listening Ch. 7

Module 13 - *Song Analysis I*

Instrumentation

Form

Levels

Position

Dynamics

Dimension

Quality

Layering

Frequency stratification

Side-chain processing

Envelope modulation

Filter modulation

Arpeggiators

Finals Week: Final exam day and time TBA per published USC Final Exam Schedule for current semester. See Final Exam Policy Warning Above.