

RAT-2311: RECORDING LAB II

Cuyahoga Community College

Viewing: RAT-2311 : Recording Lab II

Board of Trustees:

2016-05-26

Academic Term:

2016-08-22

Subject Code

RAT - Recording Arts & Technology

Course Number:

2311

Title:

Recording Lab II

Catalog Description:

Practical applications of theory and techniques covered in Recording Theory. Student will produce, record and mix various styles of musical and audio for video projects. Includes human relations and talent management.

Credit Hour(s):

2

Lecture Hour(s):

0

Lab Hour(s):

6

Requisites

Prerequisite and Corequisite

RAT-1320 Audio Transducers, and RAT-1500 Recording Theory I, and RAT-1511 Recording Lab I; and concurrent enrollment in RAT-2300 Recording Theory II.

Outcomes

Course Outcome(s):

Assess needs and prepare thorough pre-production plans for an audio recording project.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Written Communication: Demonstrate effective written communication for an intended audience that follows genre/disciplinary conventions that reflect clarity, organization, and editing skills.

Objective(s):

1. Prepare basic music chord/lyric charts for project.
 2. Choose appropriate tempo for project.
 3. Identify type of studio needed for project work.
 4. Plan talent logistics for project.
 5. Prepare microphone input sheets for project recording session dates.
 6. Prepare initial digital audio workstation session file for project.
 7. Demonstrate punctuality with other project team members, talent and studio personnel.
 8. Select appropriate reference material recordings to help determine direction of project.
 9. Show song instrumentation for project.
 10. Outline song arrangement for project.
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Course Outcome(s):

Model effective professional interaction/etiquette in a professional group setting.

Objective(s):

1. Show effective collaboration techniques with other project team members.
2. Identify and show group member roles for the project.
3. Demonstrate reliability to other project team members.
4. Demonstrate preparedness with other project team members, talent and studio personnel.
5. Examine both positive and negative criticism to improve the outcome of the project.
6. Demonstrate studio etiquette by leaving studio in a clean and organized fashion for the next client.
7. Prepare an invoice that contains session dates.
8. Prepare an invoice that contains an invoice numbering system.
9. Prepare an invoice that contains a description of work.
10. Prepare an invoice that contains hours and units and rates.

Course Outcome(s):

Arrange and conduct a studio recording session in a professional environment.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Schedule talent for project recording session dates
2. Prepare proper documentation needed to schedule studio time for project recording session dates.
3. Prepare documentation needed to acquire equipment from studio for project recording session dates.
4. Demonstrate appropriate microphone setup technique for project recording session dates.

Course Outcome(s):

Operate commonly found outboard studio equipment during recording and mixing session dates.

Objective(s):

1. Demonstrate effective use of time-based processors
2. Demonstrate effective use of dynamics based processors.
3. Demonstrate effective use of outboard microphone pre-amps.
4. Demonstrate effective use of studio headphone system.
5. Demonstrate effective use of microphone stands.
6. Demonstrate effective use of gobos in the studio setting.
7. Demonstrate effective use of D.I. boxes in the studio.

Course Outcome(s):

Operate digital audio workstations (DAW) in a professional studio environment.

Objective(s):

1. Demonstrate professional file management and session naming conventions.
2. Demonstrate software session file set up hardware calibration techniques.
3. Demonstrate D.A.W. track creation and naming within software.
4. Manipulate click track settings within software.
5. Use arrangement markers in software to mark elements transitions within the project.
6. Use track color-coding to differentiate tracks within the project.
7. Manipulate internal routing and signal flow within D.A.W. and connected hardware interface.
8. Identify acceptable tracks used for comping finished tracks from multiple takes.
9. Demonstrate editing techniques required for timing correction of recorded tracks.
10. Demonstrate professional session backup techniques.
11. Manipulate tuning software in ways that enhance the project.
12. Manipulate amp simulation software in ways that enhance the project.
13. Manipulate sound replacement software in ways that enhance the project.

Course Outcome(s):

Operate both digital and analog recording consoles in a professional studio environment.

Objective(s):

1. Demonstrate proper large format console input path configuration and gain structure techniques.
2. Demonstrate proper large format console monitor path configuration and gain structure techniques.
3. Demonstrate proper large format console cue/talkback configuration and gain structure techniques.
4. Demonstrate proper console documentation procedure.
5. Demonstrate proper console "zeroing" techniques.

Course Outcome(s):

Record audio for multi-track music projects in a professional studio environment.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Differentiate between types of instruments amps that enhance the project.
2. Differentiate between music instrument recording techniques that enhance the project.
3. Differentiate between vocal recording techniques that enhance the project.
4. Distinguish between acceptable and non-acceptable tracking levels.
5. Discriminate between acceptable and non-acceptable instrument tuning.
6. Discriminate between acceptable and non-acceptable instrument timing.
7. Demonstrate stereo layback recordings.

Course Outcome(s):

Mix audio for multi-track music projects in a professional studio environment.

Essential Learning Outcome Mapping:

Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Objective(s):

1. Demonstrate rough mix, cue mix, final mix and alternate mix creation.
2. Identify and use elements that contribute to the volume balance of a mix.
3. Identify and use elements that contribute to the frequency balance of a mix.
4. Identify and use elements that contribute to mix dynamics.
5. Differentiate between appropriate and non-appropriate use of time-based processors.
6. Differentiate between appropriate and non-appropriate use of dynamics based processors.

Course Outcome(s):

Prepare and deliver a finished audio product.

Objective(s):

1. Prepare a deliverable product that has a pleasing appearance.
2. Prepare a deliverable that plays back on outside sound systems.
3. Prepare a deliverable that includes appropriate documentation and liner notes.

Methods of Evaluation:

1. Lab technical performance
2. Quality of finished projects
3. Participation
4. Teamwork in lab groups

Course Content Outline:

1. Project Preproduction
 - a. Choosing reference material
 - b. Choosing song arrangement/instrumentation/chords/lyrics/tempo
 - c. Talent logistics
 - d. Pre-session documentation-mic input sheets/studio layout
 - e. Preparing DAW project file

- f. Recording scratch tracks
- g. Choosing appropriate studio for project needs
- 2. Studio etiquette in the professional setting
 - a. Session roles
 - b. Effective collaboration techniques
 - c. Reliability
 - d. Punctuality
 - e. Preparadness
 - f. Positive and negative criticism
 - g. Invoice numbering, dating, work description and rates
- 3. Effective session management
 - a. Scheduling talent
 - b. Scheduling studio time
 - c. Equipment rental
 - d. Mic setup and technique
 - e. Wrapping up sessions
- 4. Outboard studio equipment use during sessions
 - a. Time-based processors
 - b. Dynamics processors
 - c. External mic pre amps
 - d. Studio headphone systems
 - e. Microphone stands
 - f. Gobos
 - g. D.I. boxes
- 5. Digital Audio Workstations
 - a. File management & session naming
 - b. Session file setup and hardware calibration
 - c. Session markers and track color coding
 - d. Internal routing and signal flow
 - e. Track comping
 - f. Editing for timing correction
 - g. Sound replacement
 - h. Amplifier simulation
 - i. Session backup and archiving
- 6. Analog and digital console efficiency
 - a. Monitor path
 - b. Input path
 - c. Cue send and talkback
 - d. Recall documentation
 - e. Reset to zero
- 7. Multi-track recording
 - a. Choosing the appropriate instruments and amplifiers
 - b. Advanced electric and acoustic recording techniques
 - c. Advanced vocal recording techniques
 - d. Tracking levels
 - e. Instrument tuning
 - f. Instrument and track timing
 - g. Stereo layback
- 8. Multi-track mixing
 - a. Rough mixes
 - b. Cue mixes
 - c. Final mixes
 - d. Alternate mixes
 - e. Mix volume balance
 - f. Mix frequency balance
 - g. Mix dynamics
 - h. Time-based processing
 - i. Dynamics based processing

9. Final product presentation
 - a. Appearance
 - b. Playability
 - c. Supporting notes and documentation

Resources

Boyd, Brian C. *CCA 026A Quick Start Guide for Students Staff*. 3rd ed. Cleveland, OH: Cuyahoga Community College, 2011.

Boyd, Brian. *CCA 028 Quick Start Guide for Students Staff*. 3rd ed. Cleveland, OH: Cuyahoga Community College, 2011.

Boyd, Brian. *CCA 30 Quick Start Guide for Students Staff*. 3rd ed. Cleveland, OH: Cuyahoga Community College, 2011.

Boyd, Brian. *CCA 033 Quick Start Guide for Students and Staff*. 3rd ed. Cleveland, OH: Cuyahoga Community College, 2011.

Boyd, Brian. *CCA 034 Quick Start Guide for Students Staff*. 3rd ed. Cleveland, OH: Cuyahoga Community College, 2011.

Bartlett, Bruce and Bartlett, Jenny. *Practical Recording Techniques The Step-by-Step Approach to Professional Audio Recording*. 6th ed. New York, NY: Focal Press, 2014.

Corey, Jason. *Audio Production and Critical Listening: Technical Ear Training*. 1st ed. New York, NY: Focal Press, 2010.

Everest, F. Alton. *Critical Listening Skills for Audio Professionals*. 1st ed. Boston, MA: Cengage Learning, 2006.

Everest, F. Alton, and Pohlmann, Ken. *Master Handbook of Acoustics*. 6th ed. New York, NY: McGraw-Hill Education, 2014.

Gervais, Rod. *Home Recording Studio Build it Like the Pros*. 2nd ed. Boston, MA: Cengage Learning PTR, 2010.

Gibson, David. *The Art of Mixing: A Visual Guide to Recording, Engineering, Production*. 2nd ed. Boston, MA: Cengage Learning, 2005.

Huber, David Miles, and Runstein, Robert E. *Modern Recording Techniques*. 8th ed. New York, NY: Focal Press, 2014.

Owsinski, Bobby. *The Mixing Engineers Handbook*. 3rd ed. Boston, MA: Cengage Learning, 2014.

Owsinski, Bobby. *The Recording Engineer's Handbook*. 3rd ed. Boston, MA: Cengage Learning, 2014.

Owsinski, Bobby. *The Mixing Engineer's Handbook*. 3rd ed. Boston, MA: Cengage Learning, 2014.

Senior, Mike. *Mixing Secrets for the Small Studio*. New York, NY: Focal Press, 2011.

Senior, Mike. *Recording Secrets for the Small Studio*. New York, NY: Focal Press, 2015.

Resources Other

1. Student reference headphones
2. Course Blackboard site consisting of equipment operation manuals, reprints, data sheets, etc.
3. Annual RAT Recording Workshop session files
4. Instructor supplied multi-track session files
5. Crooked River Groove multi-track project

Key: 3916