

INTRODUCTION TO SOUND ENGINEERING

MUAE 2100.002 – FALL 2026

Class Time: 11:10a – 12:05p

Location: MUSI 287 and SPEC's LAB (239)

Instructor: Harlan Hodges

Office: MUSI 240

Office Hours: - Tuesdays 3pm - 4pm

Email: harlan.hodges@unt.edu

[Music Computer Lab and Studio](#) MUSI 238-239

HOLIDAYS

NO CLASS: September, 7th - Labor Day

NO CLASS: November 23th - 29th - Thanksgiving Break

COURSE OVERVIEW

This course is an introductory exploration and practice in the field of sound engineering, studio recording, and music production. The technique and practice of post-production consist of a vast array of many interdisciplinary subjects ranging from Performance and Studio Etiquette all the way to scientific fields such as Electrical and Acoustical Engineering! The working studio engineer or musician in today's music industry no longer has the luxury of only focusing on one field of study. This class is intended to prepare the student for a variety of situations they will encounter as they move into the professional post-production industry. With this in mind, the topics included in the course are designed to prepare the student for the following jobs that they may potentially fall into: Sound / Tracking / Mix Engineer, Pro-Tools Operator, Music/Score Producer, Studio Technician / Systems, Studio Maintenance, Studio Owner, as well as the various fields that are adjacent. Often, young professionals break into the field through studio assistantships / apprenticeships. The class is intended to equip the students with all the skills necessary to begin assisting working professionals in the post-production industry.

The course is taught through a variety of real-world simulations and hands-on learning experiences that are engaging, creative and collaborative. Students will be given an opportunity to build their portfolio and credentials through hands on projects.

COURSE OBJECTIVES

- To equip students with a thorough understanding of the multiple stages of post-production in the studio and recording environment.
- Provide students with hands on vocational-style training.
- Help students gain a more accurate understanding of what type of work they might want to do post-school.

ATTENDANCE / PARTICIPATION

Students are encouraged to attend all classes, demos, field trips, and lectures to ensure they get the most out of the class. UNT strives to offer you a high-quality education and a supportive environment, so you learn and grow. Students are allowed 4 absences that are unexcused before their grade is affected. Each additional absence will drop their score by ½ letter grade. Excusable absences include Sickness, Emergency, Religious Holiday, School-related Functions, high-paying gigs **ONLY IF** the instructor is notified by email!

Students will be graded on their professional demeanor and participation in class. In the post-production world being on time is everything and so the beginning of each class period will be considered DOWNBEAT of a gig. Please ensure that you are on time and ready to work at the beginning of each class since there is a lot of material to cover and get through.

REQUIRED MATERIALS

Course Textbook: Bobby Owsinski's - The Tracking Engineer's Handbook
Accessibility to Avid Pro Tools

RECOMMENDED (NOT REQUIRED!) SOFTWARE and HARDWARE MATERIALS

Secondary DAW of your choice: Cubase, Logic, Ableton Live, Nuendo, Reaper
Notation software of your choice: Dorico, Sibelius, MuseScore, or other
Laptop / iPad
MIDI Keyboard

MANDATORY ATTENDANCE EVENTS

Attendance is tracked via a **QR Code**. Students are responsible for monitoring the Commercial Music Microsoft Teams channel for the most current schedule updates.

Show Date Week Time Venue

Commerical Music

Showcase Tue, Sep 15 5 9p Syndicate

zebras Tue, Oct 20 10 9p Syndicate

Commerical Music

Showcase Mon, Oct 26 11 8p Lab West

Zebras Tue, Nov 17 14 8p Lab West

CM Departmental bi-weekly

(odd weeks) 12.45-1.35p MEIT (MU1001)

CLASS SCHEDULE (ALL DATES TBD by week 2 of class)

FIELD TRIPS:

SPEC's Research and Recording LAB (TBD)

Electrical Engineering Lab (TBD)

Soundbox Willis Library Facility (TBD)

Acoustical Engineering Lab (TBD)

Panhandle Audio Denton, TX (TBD)

HANDS ON ASSIGNMENTS:

Rolling Cables

Mic Placement

Signal Flow

Pro Tools Operating

Producing

File-Management

Basics of Soldering (TBD) – XLR, TS, TRS

CLASSROOM LECTURES:

Naming Conventions

Project Organization / Folder Structure / Client Share

Click-Track Building

Monitoring

Mix Engineer vs. Pro Tools Op

Microphone Types: Overview Basic Categories

Cable Types: Overview of Basic Categories

Punches / Streamers

Patchbay Workflow and Routing

Time Keeping: Bars and Beats, SMPTE, Min:Sec, Samples, Feet and Frames, and “Real-time”
Studio Organization and Management
Templates
Automation Explored pt. I – Software Tools Overview
Automation Explored pt. II – Hardware Tools Overview
Computer Based “Non Mixing” Automation Explored pt. I – Keyboard Maestro, AI Tools Overview
Studio Systems Building - Custom Fabrication, Boutique, and Ergonomics
Client Relations

STUDIO LECTURES:

Studio Tour and Layout Explanation
Signal Flow pt. I – Home Tracking
Signal Flow pt. II – Advanced Home Tracking
Signal Flow pt. III – Professional Tracking
Signal Flow pt. IV – Professional Multi-Tracking
Handling Microphones / Stands
Patchbay Basics
Headphones / Talkback
Pro Tools Operating – Click Tracks, Prelays, Pre-Roll, Markers
Producing – How to move a session along
Who, Where, What and (Why) - The concept of mic Placement.
Who, Where, What and (Why) – The concept of music direction.
Video Playback / Sync
Analogue Console Overview

STUDIO TRACKING DEMOS:

Acoustic Guitar – Demo
Acoustic Guitar / Vocal - Demo
Vocals – Demo – Gain Matching for Comparisons
Drum Set – Demo (Phase, Placement, etc.)
Piano Tracking 101 – Demo
Electric Guitar / Bass Tracking 101 – Demo
Upright Bass Tracking – Demo
Brass Tracking – Demo
Woodwind Tracking – Demo
Harp Tracking – Demo
String Quartet – Demo
Percussion 101 – Demo
Sample Building - Demo
The Rhythm Section – Demo
Rock Band – Demo
Big Band – Demo
String Orchestra – Demo

SUPPLEMENTARY READINGS:

DPA Mic University
Shure Mic Techniques
Modern Recording Techniques - A Practical Guide to Modern Music Production by David Miles
Huber, Emiliano Caballero, Robert Runstein
Classical Recording - A Practical Guide in the Decca Tradition
by Caroline Haigh (Author), John Dunkerley (Author), Mark Rogers (Author)

MID-TERM / FINAL TEAM Project:

Students will be placed in groups for the mid-term tracking and final team project. This will give each of you the opportunity to collaborate in a simulated real-world environment and learn from making mistakes.

Teams will be expected to brainstorm and choose the strengths of individuals within the team to assign the following jobs:

- Producer
- Tracking Engineer
- Pro Tools Operator
- Assistant Engineer
- Mix Engineer
- *Contractor / Librarian

Groups will select a project from the list below to complete and present at the end of the semester. Once a project is selected students will not have the ability to change direction on production. Students MUST SUBMIT for APPROVAL of instructor before continuing with production. Projects that have not been approved will not be considered.

- Acoustic Single Instrument – Instrumental Performance Track
- Acoustic Single Instrument / Vocal – Song Track
- Acoustic / Hybrid – Instrumental Track
- Ensemble / Hybrid / Vocal - Track
- VST Sample Build - Final includes demonstration of build / Use in context
- Other Projects within reason that can be managed like the above.

Students will schedule a tracking session and will be given an opportunity to present their final project during our last week of the semester. Additional tracking time can be booked in SPEC's once the lab is open and students can use any outside equipment to complete the project.

Projects:

Mid-Term Tracking Session:

During the mid-term students will be expected to run their own studio session during class-time to demonstrate their proficiency in the studio. During such a short window of time, organization is critical and oversight of potential technical problems must be managed. This will include performance considerations and studio workflow management. The student groups will be allowed to set up their session before their session time so that class-time is spent tracking. This will be left up to their selected producer's discretion.

Final Project Delivery:

Students will present a final mix or presentation of their project to simulate a client delivery during our final in-class listening sessions. Students' final projects will be graded based on a variety of factors during the semester and it is integral that you bring your working strengths to the group. Post-production jobs do not exist without collaboration! Your grade will be based on your proficiency within the group.

ACADEMIC INTEGRITY

Students caught cheating or plagiarizing will receive a "0" for that particular assignment or exam [or specify alternative sanction, such as course failure]. Additionally, the incident will be reported to the Dean of Students (Office of Academic Integrity), who may impose further penalty. According to the UNT catalog, the term "cheating" includes, but is not limited to: a. use of any unauthorized assistance in taking quizzes, tests, or examinations; b. dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; c. the acquisition, without permission, of tests or other academic material belonging to a faculty or staff member of the university; d. dual submission of a paper or project, or resubmission of a paper or project to a different class without express permission from the instructor(s); or e. any other act designed to give a student an unfair advantage. The term "plagiarism" includes, but is not limited to: a. the knowing or negligent use by paraphrase or direct quotation of the published or unpublished work of another person

without full and clear acknowledgment; and b. the knowing or negligent unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

See: [Academic Integrity](#)

LINK: <https://policy.unt.edu/policy/06-003>

STUDENT BEHAVIOR

Student behavior that interferes with an instructor's ability to conduct a class or other students' opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Dean of Students to consider whether the student's conduct violated the Code of Student Conduct. The university's expectations for student conduct apply to all instructional forums, including university and electronic classrooms, labs, discussion groups, field trips, etc.

See: [Student Code of Conduct](#)

Link: <https://deanofstudents.unt.edu/conduct>

ACCESS TO INFORMATION – EAGLE CONNECT

Your access point for business and academic services at UNT occurs at my.unt.edu. All official communication from the university will be delivered to your Eagle Connect account. For more information, please visit the website that explains Eagle Connect.

See: [Eagle Connect](#)

LINK: eagleconnect.unt.edu/

ODA STATEMENT

The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with an accommodation letter. You can now request your Letters of Accommodation ONLINE and ODA will mail your Letters of Accommodation to your instructors. You may wish to begin a private discussion with your professors regarding your specific needs in a course. Note that students must obtain a new letter of accommodation for every semester. For additional information see the Office of Disability Access.

See: [ODA](#)

LINK: disability.unt.edu. (Phone: (940) 565-4323)

Health and Safety Information

Students can access information about health and safety at: <https://music.unt.edu/student-health-and-wellness>

Registration Information for Students

See: [Fall Academic Calendar Information](#)

Link: <https://registrar.unt.edu/registration/fall-academic-calendar.html>

Semester Calendar, Fall 2026

See: [Fall Semester Calendar](#)

Link: <https://registrar.unt.edu/registration/fall-academic-calendar.html>

Financial Aid and Satisfactory Academic Progress

Undergraduates

A student must maintain Satisfactory Academic Progress (SAP) to continue to receive financial aid. Students must maintain a minimum 2.0 cumulative GPA in addition to successfully completing a required number of credit hours based on total hours registered. Students cannot exceed attempted credit hours above 150% of their required degree plan. If a student does not maintain the required standards, the student may lose their financial aid eligibility.

Students holding music scholarships must maintain a minimum 2.5 overall cumulative GPA and 3.0 cumulative GPA in music courses.

If at any point you consider dropping this or any other course, please be advised that the decision to do so may have the potential to affect your current and future financial aid eligibility. It is recommended that you to schedule a meeting with an academic advisor in your college or visit the Student Financial Aid and Scholarships office to discuss dropping a course before doing so.

See: [Financial Aid](#)

LINK: <http://financialaid.unt.edu/sap>

Graduates

A student must maintain Satisfactory Academic Progress (SAP) to continue to receive financial aid. Students must maintain a minimum 3.0 cumulative GPA in addition to successfully completing a required number of credit hours based on total registered hours per term. Music scholarships require a 3.5 cumulative GPA. Students cannot exceed maximum timeframes established based on the published length of the graduate program. If a student does not maintain the required standards, the student may lose their financial aid eligibility.

If at any point you consider dropping this or any other course, please be advised that the decision to do so may have the potential to affect your current and future financial aid eligibility. It is recommended you schedule a meeting with an academic advisor in your college, an advisor in UNT-International or visit the Student Financial Aid and Scholarships office to discuss dropping a course.

See: [Financial Aid](#)

LINK: <http://financialaid.unt.edu/sap>

COUNSELING AND TESTING

UNT's Center for Counseling and Testing has an available counselor for students in need. Please visit the Center's website for further information:

See: [Counseling and Testing](#)

Link: <http://studentaffairs.unt.edu/counseling-and-testing-services>.

For more information on mental health resources, please visit:

See: [Mental Health Resources](#)

Link: <https://disparities.unt.edu/mental-health-resources>

ADD/DROP POLICY

Please be reminded that dropping classes or failing to complete and pass registered hours may make you ineligible for financial aid. In addition, if you drop below half-time enrollment you may be required to begin paying back your student loans. See Academic Calendar (listed above) for additional add/drop Information.

Drop Information: <https://registrar.unt.edu/registration/fall-academic-calendar.html>

STUDENT RESOURCES

The University of North Texas has many resources available to students. For a complete list, go to:

See: [Student Resources](#)

Link: <https://success.unt.edu/aa-sa-resources>

CARE TEAM

The Care Team is a collaborative interdisciplinary committee of university officials that meets regularly to provide a response to student, staff, and faculty whose behavior could be harmful to themselves or others.

See: [Care Team](#)

Link: <https://studentaffairs.unt.edu/care-team>

Additional Resources for Faculty

USE OF ARTIFICIAL INTELLIGENCE (including sample statement for syllabi)

See: [Faculty Guide for the Use of AI](#)

Link: <https://guides.library.unt.edu/artificial-intelligence/AIfaculty>

RETENTION OF STUDENT RECORDS

Student records pertaining to this course are maintained in a secure location by the instructor of record. All records such as exams, answer sheets (with keys), and written papers submitted during the duration of the course are kept for at least one calendar year after course completion. Course work completed via the Canvas online system, including grading information and comments, is also stored in a safe electronic environment for one year. You have a right to view your individual record; however, information about your records will not be divulged to other individuals without the proper written consent. You are encouraged to review the Public Information Policy and the Family Educational Rights and Privacy Act (FERPA) laws and the university's policy in accordance with those mandates.

See: [FERPA](#)

Link: <http://ferpa.unt.edu/>

