

# AUDI 122-02 DAW Production Techniques and Applications

## FA2023

### Course Details

**Credits:** 3

**Prerequisites:** AUDI 121 Fundamentals of Audio Production

**Time:** Thursday, 3:30-6:20 PM

**Place:** Building 33, Room 617

**Instructor:** Teerath Majumder

**Instructor Email:** [tmajumder@colum.edu](mailto:tmajumder@colum.edu)

**Office Hours:** Wednesday, 11 AM-1 PM and 2 PM-3 PM on Zoom; Thursday, 1:30-2:30 PM at 33, 601-H; or by appointment

### Course Description

This course provides students with a solid foundation in working with digital audio workstations. Through lecture/demonstration/discussions, in-class and homework assignments, and a series of creative projects, students gain experience with fundamental practices in digital audio production, including editing, signal processing, automation, mixing, and preparing audio deliverables. Students participate in a series of assignments to develop, practice, and refine listening, evaluation, and judgment abilities. In the process, students adopt techniques and strategies for organizing and managing sessions, developing effective communication and presentation skills, and acquiring a sense of professionalism in the field.

- The course work will include lectures/discussions, live demonstrations, listening exercises, online tests, in-class work, or discussion groups, along with out of class audio productions.
- Assignments will reinforce lecture topics and afford students the opportunity to begin developing the craft and aesthetic necessary for successful audio production.
- All class materials and information are accessible via the course Canvas page.
- Assignments are submitted to Canvas and required to be in the form of archived (zipped) ProTools sessions.

### Learning Outcomes

Students successfully completing this course will:

- Demonstrate proficiency with digital audio mixing, editing, and signal processing functions.
- Demonstrate a solid understanding of DAW architecture and signal flow.

- Effectively manage digital audio sessions, using resources efficiently, preserving data integrity, and organizing sessions in a clear, professional manner.
- Practice ear training and demonstrate listening skills to identify, evaluate, and make decisions about technical aspects of recorded content.
- Express themselves creatively through sound using the tools and techniques introduced in the classroom.
- Complete a series of projects in a range of production contexts, including interactive media, music, sound art, and film and video.

## Required Materials and Resources

- This course has a \$70 fee and no required textbook.
- Students are required to have over the ears headphones.
- Students are required to have a back-up external USB storage device (minimum 32GB) and to back up every class.
- You will need at least a few hours of dedicated time a week to work on class material.  
*\*Lab stations and VO booths may be reserved via webcheckout.*

## Class Policies

- Students are expected to participate in class, which includes: attendance, submitting work on time, involvement in discussions/discussion questions, and constructive critique.
- Students who miss a class should inform the instructor in advance if possible and are responsible for any assignments due and material missed.
- Assigned work is due at the beginning of the specified class unless otherwise indicated. If a student is unable to submit their work on time due to extenuating circumstances, they should let the instructor know in advance. Otherwise, 10% of the score will be deducted for every 24 hours after the posted deadline.
- The instructor will record all grades in Canvas. Students are expected to check Canvas weekly to monitor their class average.
- Student course evaluations will be open during weeks 12-14 of the semester.
- At the end of each work session, back-up to at least two places. If working in the lab, delete all work from the internal local Audio Drive and then right click and “empty trash” on the desktop. It is good practice to delete material from the local drive of the classroom machines before loading your files to begin work.

## Evaluation

### Projects: 54%

Project 1: 21%

Project 2: 15%

Project 3: 18%

Students are encouraged to be as creative as they like with projects, while still demonstrating mastery of production techniques covered in class and by the resources.

**Labs: 27%**

Labs 1-5

**Tests: 19%**

Test 1: 5%

Test 2: 5%

Test 3 (cumulative): 9%

**Grading Scale**

93% ≤ A ≤ 100%	73% ≤ C < 77%
90% ≤ A- < 93%	70% ≤ C- < 73%
87% ≤ B+ < 90%	60% ≤ D < 70%
83% ≤ B < 87%	0% ≤ F < 60%
80% ≤ B- < 83%	I = Incomplete
77% ≤ C+ < 80%	

**Communication**

Students are encouraged to reach out to the instructor with any questions regarding the course through Canvas messages.

**Disability**

If there are conditions that prevent a student from attending classes or participating fully in academic activities, the student is encouraged to consult [Services for Students with Disabilities](#) as soon as such conditions present themselves.

**General Reference**

**School of Media Arts:** Tom Dowd, Interim Dean - [tdowd@colum.edu](mailto:tdowd@colum.edu)

**Department of Audio Arts and Acoustics:** Ben Sutherland, Chair - [bsutherland@colum.edu](mailto:bsutherland@colum.edu) (department phone: 312-369-8820)

**This syllabus is intended to give the student guidance in what may be covered during the semester and will be followed as closely as possible. However, instructors reserve the right in their discretion to modify, supplement, and make changes as course needs arise.**

## Semester Schedule

Week	Lecture Topic	Demo	In-Class Activity	Assignment Due
1	Introduction to the course	Lab workflow, archive locations, VO booth signal flow	Create Pro Tools session, configure I/O, back up to archive locations, Lab 1 part 1	Lab 1 part 1
2	Digital audio theory review, working with Pro Tools sessions	Pro Tools session management, file conversions	Lab 1 part 2, Lab 2	Lab 1 part 2, Lab 2
3	Computer and DAW architecture, designing sound assets	Pro Tools workspace, sound asset creation, basic mastering	File management exercise, Lab 3	Lab 3
4	Spectral, file-based and real-time processing	Listening exercise, spectral application, Audiosuite vs RTAS	Lab 4 Project 1: gather resources	Lab 4, Project 1 part 1, Test 1
5	Music production and editing	Identifying tempo, setting up a grid, arranging beats and loops, automation	Looping, tempo extraction Project 1: configure grid, begin arrangement	Project 1 part 2
6	Dynamics processing, signal routing	Dynamics processor parameters, sidechaining	Lab 5 Project 1: sidechain applications	Lab 5, Project 1 part 3
7	Time-based processing 1	Delay, chorus, flange, parameters; FX loops	Project 1: rough mix	Project 1 part 4
8	Time-based processing 2	Reverb and spatialization, multi-stage processing 1	Project 1: final mix	Project 1 part 5
9	Sound art	Soundscape design, multi-stage processing 2	Project 2: gathering sound assets	Project 2 part 1, Test 2
10	Advanced spectral and time-based processing	Pitch shift, time compression/expansion, elastic audio	Project 2: rough mix	Project 2 part 2
11	Sound for picture 1	Importing video into Pro Tools, creating a cue list	Project 2: final mix	Project 2 part 3
12	<b>Thanksgiving break</b>			Project 3 part 1
13	Sound for picture 2	DME submixes	Project 3: arrangement	Project 3 part 2, Test 3
14	Sound for picture 3	Submixes, bouncing final mix to a video file	Project 3: final mix	Project 3 part 3
15			Project 3 presentations	