

University of North Texas  
College of Music, Division of Jazz Studies  
**Introduction to Digital Audio Workstation Techniques**

Topic: **MIDI Sequencing Using Logic Pro X**

MUAE 3100-003 CRE (12848), MUJS 5900-703 (4278)

Spring 2022

Tu Thu 3:30p-4:50p, RM 322

## **Course Syllabus**

**Instructor:** Robert Trusko, MA: [Robert.Trusko@unt.edu](mailto:Robert.Trusko@unt.edu)

Office Hours: **Thursdays 12:30-1:50pm**; or by appointment.

Instructor Zoom Meeting Room ID: **273 154 8243**

**Course Pre-requisites, Co-requisites, and/or Other Restrictions:** None.

**Course Description:** Introduction through intermediate skill development in MIDI sequencing, recording, editing, mixing and audio mastering using the Logic Pro X DigitalAudio Workstation (DAW) software for Mac.

### **Student Learning Outcomes**

- Demonstrate intermediate proficiency as an engineer in Logic Pro X, knowing the interface, tools and keyboard shortcuts.
- Apply a professional workflow and techniques to produce tracks in any genre using software instruments, MIDI, loops and audio.
- Learn to record and edit to movie files in Logic Pro X for scoring and sound designing your own videos.
- Customize Logic's built-in sound library and create original presets to suit your artistic preferences.
- Learn basic synthesis techniques for creating your own sounds from scratch using digital and analog-modeled synthesizers.
- Compile a shareable portfolio of original projects, including composition sketches and several full-length song arrangements.
- Command basic mixing abilities using levels, panning, corrective signal processing (EQ, compression, etc.), creative signal processing (reverb, delay, distortion, modulation) and automation.
- Implement a basic mastering chain on your stereo output for finalizing your tracks to commercial specs.

### **Teaching Philosophy**

You will learn by doing in this course.

- The instructor will present tools and demonstrate their application, then you will practice applying the same techniques to create your own original music.
- Each student will produce something unique for every lab assignment and project.

The instructor will give you information, direction, support and feedback always with the goal of

empowering you.

- For example, if you ask a technical question that is answered online somewhere, the instructor might respond with a link to an external website that troubleshoots your issue, or the instructor might recommend a specific query phrase you can enter into a web search engine to find the answer.
- If you ask a question about the class that is answered in the syllabus, the instructor might respond, "See page 4 of the syllabus."
- The instructor wants to empower you to become self-sufficient and fully ready for continued success after the semester ends!
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## Communicating With Your Instructor

Please check Canvas course announcements and your UNT email daily, as these are the means by which the instructors will contact you with important information, updates and reminders.

Please **use Discussions** in our Canvas course for all communication with the instructors and your classmates, unless your communication content needs to be private.

Please **use email** to contact your instructor and assistant instructor with any private questions, concerns, planned absence consultation or office hours appointments:

- Always address emails to [Robert.Trusko@unt.edu](mailto:Robert.Trusko@unt.edu)
- Always use the Subject: "Logic Pro Spring 2022: Your Subject"
- Expect an email response within 24 hours.
- Zoom Number for class or office hours:
- Expect emails you send after 5pm or on weekends to be seen the next work day.
- **Please do not contact me through canvas e-mail, my personal g-mail or any other outlet.**

## Format (Canvas-Driven)

Canvas will be the hub for everything in this course. Some lectures will be delivered in person and others will be as step-by-step instructional videos. All will always be accompanied by PDFs. All lab and project assignments will be submitted online via Canvas. All quizzes will be administered online via Canvas.

The lecture material and assignment will all be given *before* our weekly class-meeting. Our class time will be used for follow-up group work, individual work with instructor support, asking and answering questions and/or sharing drafts of your work with the instructor and your classmates.

Typical weekly schedule:

- Friday 8am - New module opens on Canvas with all lecture videos and lab assignment material
- Following Tuesday 9:30am - In class discussion, activities, and workshopping on assignment material, and sometimes continue your individual work on your lab
- Thursday 9:30am - Lab rough draft due at the start of class. Class time used to work out any technical kinks with instructor help, receive instructor and/or classmate feedback on your lab, continue your individual work on your lab.
- Thursday 12:59pm - Lab due to Canvas
- Friday 8am - New module opens on Canvas...

Smartest way to do this class:

1. Look over the new module materials Friday.
2. Watch the videos, complete reading, and get to work on your Lab early (Friday-Tuesday).
3. Give yourself an extra day (Wednesday) for dealing with any unforeseen issues that arise (computer crashing, internet drama, trouble understanding the Lab techniques, life-problems...).
4. Bring your completed Lab to class Thursday to share, get feedback and continue working during class time.
5. Finish and submit your Lab by Thursday night 11:59pm.

### Minimum Technical Skills Needed

Using the Canvas learning management system. Using an online file sharing platform (e.g. Dropbox) for submitting Pro Tools session folders.

### Materials

The following materials are all supplied in the Computer Music Lab for working at school when the lab is open. You can also [check out a Mac laptop with Logic Pro installed from the Lab for 24 hours](#) and/or other materials below for your home use during this course. As such you are **not required** to purchase any materials for this class. **BUT...** Purchase of the following materials is *recommended* so that you can work on audio projects at home and in the future as a music professional.

### Highly Recommended but Not Required:

1. **Mac Computer with Logic Pro X installed.** Although there is no academic discount for Logic Pro X alone (\$199), this price is very low for the features included when compared with ProTools, Cubase or any other professional DAW. It is well worth the investment. Before you buy, please consider Apple's [Pro Apps Bundle for Education](#) that includes Logic Pro X plus four other valuable video and live music production apps (\$199--same price as Logic by itself!)
2. **Reference headphones** are needed for all audio work. Earbuds and any other headphones you already own are almost assuredly not reference headphones. There are many companies and options, but be sure to choose headphones that *explicitly specify* they have a **flat frequency response for studio reference monitoring**. A popular, affordable option are [Sony MDR 7506](#) reference headphones. If you have a slightly higher budget, [AKG371 BT](#) are my current personal favorite.

Optional:

3. **MIDI keyboard controller.** If you want to input notes and control other Logic Pro parameters not only using your mouse and laptop's keyboard, consider spending \$80+ on a [USB MIDI controller](#). Some compact examples for those who don't need the range and feel of a piano: [Akai Pro MPK Mini mk II](#), [Novation Launchkey 25](#), [M-Audio Oxygen 25](#), [Arturia MiniLab MkII](#), [IK Multimedia iRig Keys I/O 25](#), others.... Compare the features and pick what suits you best. Some have smaller/larger keys. Some work with iOS as well as Mac OS. Some have bundled software or even built-in USB audio interface



capabilities.

3. **Audio recording interface.** This is needed to plug an instrument or external microphone into your computer for recording audio into a Logic session. There are MANY available options, ranging from inexpensive to very expensive. A few high quality options I can personally recommend:
  - (least expensive but still high quality) [PreSonus AudioBox USB 96](#) or [PreSonus AudioBox 96 Studio USB 2.0 Hardware/Software Recording Kit](#) (includes reference headphones and a microphone as well) or [UAD Volt](#)
  - (a little more expensive) [Focusrite Scarlett 2i2](#) or [UAD Volt](#)
  - (expensive and high quality) [Apogee Duet](#) is great. Or an [Apollo Twin](#)
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4. **Microphone (and accessories).** There are many, MANY microphone options for all budgets. A great mic to start with for studio recording is a [Large-diaphragm condenser microphone](#). I recommend you first set your budget then compare reviews of mics in that budget.
  - If you have a mic, you need a [mic cable](#) (be sure to check the length)
  - You probably need a mic stand: [full-size](#) / [desktop](#)
  - And for recording vocals you'll want a [pop filter](#)

#### Grading Summary:

35	Lab Exercises (9)
15%	Quizzes (5)
20%	Attendance (15)
10%	Midterm Project
<u>20%</u>	<u>Final Project</u>
100%	Total

**Lab exercises** are due to Canvas by 11:59 pm Thursdays. **Late submissions are not accepted without advance request of extension** (see policy below).

**Quizzes** will be administered via Canvas throughout the semester, covering lecture content, lab techniques and assigned online reading and viewing content. These will be open-note and generally consist of multiple choice and true/false questions.

The **Midterm Project** will be a polished representation of your best MIDI sequencing work for the first half of the semester. See Module 7 for details.

The **Final Project** will be a polished representation of your best MIDI sequencing and audiomixing work for the semester and may include audio tracks and/or video as well. The project will be assigned and completed in 5 parts, each part having specific requirements detailed beginning Module 11. Your final mastered product must be hosted online for streaming that can be accessed via link, but does not need to be public.

## Final Project bonus opportunity

For each lab exercise you submit *on time with no deadline extension*, you will earn bonuspoints on the Final Project:

- All 9 Labs on time: 13% bonus
- 8 Labs on time: 11% bonus
- 7 Labs on time: 8% bonus
- 6 Labs on time: 6% bonus
- 5 Labs on time: 5% bonus
- 4 Labs on time: 4% bonus
- 3 Labs on time: 3% bonus
- 2 Labs on time: 2% bonus
- 1 Labs on time: 1% bonus

Your attendance at each class is scored on a 10-point scale:

10 pts: **Exactly on-time** and present for the class period (i.e. paying attention during instructor demonstrations, doing class work during work time, **having rough draft at the start of class**)

8 pts: *A little late* and/or not fully present (e.g. not not fully paying attention and/or not exclusively doing classwork for this course during work time,)

5 pts: *Very late* and/or hardly present (e.g. being disruptive and/or spending half of the class doing unrelated work, **does not have rough draft**)

0 pts: *Absent* or not present (e.g. being repeatedly disruptive and/or spending most of the class doing unrelated work)

## ATTENDANCE, DRAFTS, LATE WORK AND EXTENSION POLICIES:

**Absences are only excused for** religious holidays, required performances, family emergencies or student illness. You must get documentation or a doctor's note for an absence to be excused. If you need to be absent for a reason that you are not sure fits into these categories, please let me know and we will discuss if it can be excused.

**Rough Drafts** are due at the beginning of class every Thursday. These must be either downloaded on your laptop or available on a USB-C or 3.0 flash drive. The rough draft must consist of the full project file and an MP3.

**Zero Late Work:** No late work is accepted without advance request of extension. If you are absent (excused or unexcused), your work is still due on time to Canvas. You are always responsible to check Canvas and complete any lab work or quizzes assigned in your absence. Consult the class schedule (pp. 6-7) for all due dates.

### Requesting an Extension

Extension requests are completed on Canvas and **not via email**. To request a deadline extension, you must enter the text "Extension requested. Reason: [your reason]" to the Canvas assignment submission

by Thursday 11:59pm. All extension requests made after the deadline will be denied. All requests made by the Thursday 11:59pm deadline will be granted an extra 48-hours until Thursday 11:59pm at the latest to submit your work.

### **IF YOU ARE STRUGGLING IN THIS CLASS:**

**If you are struggling for any reason** please send me an email. I want to hear what you're experiencing and we will work together to fix it. Depending on your struggle, there might be immediate help from UNT's Office of Disability Accommodation (info and link below) and/or a medical note from a counselor or therapist that will authorize me to accommodate your needs. If your struggle doesn't match either of these, we will work to find another solution.

My life is complicated, as is everyone else's I know, as is yours, I suspect. The goal of this class is to empower you with new knowledge and experience to do things you can't yet do. That means every week we will butt up against challenges you don't yet know how to clear. The schedule and policies in this syllabus are all designed with the purpose of giving you the tools you need to succeed and motivating you to use them to pass each new challenge. Every assignment is designed for your focused practice and palpable improvement. Every deadline is in place to support your pacing. Every grading policy is there to encourage and reward you for working up to your own high standards. I am generally strict about enforcing everything in this syllabus because that strictness **usually helps** my students achieve their goals and they thank me later for the tough love. I say "usually" because I know there are sometimes situations where we need to do things differently to clear the right path for a student to succeed.

We will proceed through new material and assignments with a healthy momentum designed to be manageable and helpful. If for any reason you fall off the train and feel unable to catch up, talk to me right away and we'll get you back on board.

### **Canvas Technical Assistance**

UIT Help Desk: <http://www.unt.edu/helpdesk/index.htm>

The University of North Texas provides student technical support in the use of Canvas and supported resources. The student help desk may be reached at:

Email: [helpdesk@unt.edu](mailto:helpdesk@unt.edu)

Phone: 940.565-2324

**Class Schedule** (Topic schedule subject to change **with notice**)

★ Check <b>Canvas</b> for ALL course materials, assignment details and quizzes ★			
Week	Date	TUES: Lecture	THURS: Rough Draft Due 3:30p, Final at 11:59p
1	1/17	Syllabus and course introduction Introduction to MIDI sequencing with Logic Pro X Creating a song with Apple Loops	<i>Lab and project rough drafts will always be due in class Thursday at the start of class. Final draft submissions will always be due to Canvas by 11:59pm. All quizzes will be due by 11:59pm.</i>  <b>Quiz 1</b> (Syllabus) <b>Lab 1</b> - Apple Loops Sequence
2	1/24	Drums part 1 Creating a rhythm track with Logic Pro X's Drummer instrument	<b>Lab 2</b> - Drum Sequence
3	1/31	Drums part 2 Advanced Drummer instrument techniques using Drum Designer, electronic kits and Producer Kits Layering and transforming using aliases of Drummer regions	<b>Lab 3</b> - Advanced Drum Sequence & <b>Quiz 2</b>
4	2/7	Bass MIDI programming on software instrument tracks Sampled and synthesized bass instruments	<b>Lab 4</b> - Drums and Bass Line Sequence
5	2/14	Harmony Pads and rhythmic chordal parts for keys, guitars, horns and strings MIDI inserts	<b>Lab 5</b> - Drums, Bass and Chords Sequence
6	2/21	Melodies Synthesis techniques for sculpting original sounds MIDI automation	<b>Lab 6</b> - Drums, Bass, Chords & Synth Melody Sequence
7	2/28	Mixing and Rough Mastering Mixing workflow, signal processing with audio effects insert plugins, basic mastering chain on the stereo output <b>Midterm Project:</b> 3:00+ complete song with at least 15 tracks, mixed and roughly mastered to specifications	<b>Midterm Project &amp; Quiz 3</b>

8	3/7	Digital Audio part 1; Movies Working with movie files in Logic Pro Audio tracks and recording audio with a microphone Loop recording and comping audio takes	<b>Lab 7</b> - ADR
9	3/21	Digital Audio part 2 Recording instruments via mic and line Audio processing and advanced editing, fades	<b>Lab 8</b> - MIDI and AudioSequence
10	3/28	Notation; Importing and Exporting MIDI Files Inputting and outputting staff notation with LogicPro X Importing and exporting MIDI files	<b>Lab 9</b> - Song Sequence and Sheet Music from Imported MIDI& Quiz 4
11	4/4	Final Project part 1 Create a full song (to assignment specifications)	Final Project part 1
12	4/11	Final Project part 2 Add layers, arrange and pre-mix	Final Project part 2
13	4/18	Final Project part 3 Corrective processing: EQ, de-essers, gates, compressors and limiters	Final Project part 3
14	4/25	Final Project part 4 Creative processing: reverb, delay, bus sends and aux inputs, modulation, distortion	Final Project part 4
15	5/1	Final Project part 5 Stereo output mastering chain	Final Project part 5 & <b>Quiz 5</b> (cumulative) Wed 4/28 11:59pm

## UNT POLICIES AND RESOURCES:

### 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/sites/default/files/06.003.AcadIntegrity.Final\\_.pdf](https://policy.unt.edu/sites/default/files/06.003.AcadIntegrity.Final_.pdf)

## **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](http://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/](http://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](http://disability.unt.edu). (Phone: (940) 565-4323)

## **UNT Policy Statement on Diversity**

UNT values diversity and individuality as part of advancing ideals of human worth, dignity and academic excellence. Diverse viewpoints enrich open discussion, foster the examination of values and exposure of biases, help educate people in rational conflict resolution and responsive leadership, and prepare us for the complexities of a pluralistic society. As such, UNT is

committed to maintaining an open, welcoming atmosphere that attracts qualified students, staff, and faculty from all groups to support their success. UNT does not discriminate on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, or veteran status in its application and admission process, educational programs and activities, employment policies and use of university facilities.

See: [Diversity and Inclusion](#)

Link: <https://idea.unt.edu/diversity-inclusion>

### **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: [Registration Information](#)

Link: <https://registrar.unt.edu/students>

### **Academic Calendar at a Glance, Spring, 2022**

See: [Academic Calendar at a Glance](#)

Link: [https://registrar.unt.edu/sites/default/files/Spring\\_2022\\_Academic\\_Calendar.pdf](https://registrar.unt.edu/sites/default/files/Spring_2022_Academic_Calendar.pdf)

### **Final Exam Schedule**

See: [Spring, 2022 Final Exam Schedule](#)

<https://registrar.unt.edu/exams/final-exam-schedule/spring>

### **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>

## **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/>

## **COUNSELING AND TESTING**

UNT's Center for Counseling and Testing has an available counselor whose position includes 16 hours per week of dedicated service to students in the College of Music and the College of Visual Arts and Design. 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 issues, please visit:

See: [Mental Health Issues](#)

Link: <https://speakout.unt.edu>.

The counselor for music students is:

Myriam Reynolds

Chestnut Hall, Suite 311

(940) 565-2741

[Myriam.reynolds@unt.edu](mailto:Myriam.reynolds@unt.edu)

### **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. After the 12<sup>th</sup> class day, students must first submit a completed "Request to Drop" form to the Registrar's Office. The last day for a student to drop a class in Fall, 2021 is November 12. Information about add/drop may be found at:

See: [Drops and Withdrawals](#)

Link: <https://sfs.unt.edu/class-drop-and-withdrawal-refunds>

(Also see Academic Calendar, listed above)

### **STUDENT RESOURCES**

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

See: [Student Resources](#)

Link: [https://www.unt.edu/sites/default/files/resource\\_sheet.pdf](https://www.unt.edu/sites/default/files/resource_sheet.pdf)