University of Florida | School of Music | Fall 2025

MUS 1360 Digital Musicianship and Production

M,W,F | (10:40 AM - 11:30 AM) MUB 147

Instructor

Xiaowei Cao
xiaowei.cao@ufl.edu
(786)-582-0060
Office hours: By appointment

Course Description

MUS1360 introduces the fundamentals of music technology in the context of digital music production. The course focuses on the basic technical skills required for producing creative music projects in Logic Pro X. The scientific foundations of acoustics, hearing, and digital audio, as well as their practical applications, will also be addressed.

Textbook

Hosken, Dan. *An Introduction to Music Technology*. 2nd ed. New York, NY: Routledge, 2015.
Logic Pro User Guide for Mac: https://support.apple.com/guide/logicpro/welcome/mac

Required Equipments

- Headphones/Earphones **(NO bluetooth or Mac speaker)**
- 1/4 inch TRS Male to 3.5mm TRS Female Adapter
- USB flash drive/External hard drive or Google Drive
- Musescore Studio **(Lab)**
- Audio interface **(Lab)**
- Logic Pro X **(Lab)**
- Computer (at least 8GB of RAM, 16GB is recommended) **(Lab)**

General Learning Goals.

This course enables students to:

- Develop a critical understanding of the fundamentals of essential technologies used in today's musical production, such as digital audio workstation, MIDI controller, audio interface, and so on.

- Develop technical and creative skills for utilizing Logic Pro X in music production.
- Learn to identify and solve common problems found in digital audio.

Assessment Information

Students will be evaluated based on five main factors: Attendance, Participation, Quizzes, Assignments, and the Final Group Project.

Students will need to actively participate in class (e.g., engaging in discussions and asking questions) to receive full marks for participation.

Assignments and **Quizzes** will mostly consist of materials covered in lectures and assigned readings. **Quizzes** will take place **once every two weeks**. Students can complete **Assignments** during each week's **Class Lab Hour**. For **Lab Hour** outside of regular class time, check the posted schedule outside of the **Computer Lab (MUB 147)** for more details. All assignments and quizzes, along with their corresponding requirements, will be posted on Canvas, which students should complete in a timely manner.

Students will also have to complete a **Final Group Project** (2-3 people per group) where students in the group will collaborate to either **1) Create an original production for an existing song** or **2) Produce an original song**. Students will also have to create a lead sheet for their project.

The **Final Group Project** **will be completed incrementally** by students throughout the semester, and an estimated timeline will be provided for project progression. There will also be **two showcases** for the project.

Grading

Attendance	10%
Discussions & Participations	15%
Quizzes	20%
Assignments	20%
Final Project	35%

Attendance

***1 unexcused absences** are allowed, any unexcused absence after that will result in a 10% deduction from the total attendance grade (2% of final grade). 8 or more unexcused absences will automatically result in an E grade (failure).

For an absence to be excused, the student will need to email the instructor **BEFORE** class starts and provide valid documentation (for example: doctor's note, appointment confirmation, etc.) for missing class (religious holidays, school sponsored trips, or absences cleared/approved in advance by the instructor will also be counted as excused)

Students are responsible for learning the content of a missed class (and if you have any questions, please don't suffer alone. Schedule an office hour and we will work things out!)

Late assignments will be penalized by one letter grade, and assignments turned in more than 48 hours after the deadline will receive no credit unless prior arrangements have been made.

Grading Scale

Grade	Percentage	Grade point
A	93.4-100	4.00
A-	90.0-93.3	3.67
B+	86.7-89.9	3.33
B	83.4-86.6	3.00
B-	80.0-83.3	2.67
C+	76.7-79.9	2.33
C	73.4-76.6	2.00
C-	70.0-73.3	1.67
D+	66.7-69.9	1.33
D	63.4-66.6	1.00
D-	60.0-63.3	0.67
E	0-59.9	0.00

University Honest Policy

UF students are bound by The Honor Pledge which states "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions.

See the UF Conduct Code website for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Class Schedules

***Class schedules on this syllabus are subject to change**
Lab/Q&A - Dedicated class time for students to do their **Assignments**, or work on the **Final Group Project.**

Week 1 (08/21 - 08/24)	Friday (08/22) Syllabus and Class Overview **Readings for 08/25:** *An Introduction to Music Technology* - Chpt. 1 - Chpt. 2
Week 2 (08/25- 08/31)	Monday (08/25) Sound Generation and Propagation Wednesday (08/27) Sound Properties, and the Waveform View **Readings for 08/29:** *An Introduction to Music Technology* - Chpt. 3 Friday (08/29) The Overtone Series and the Spectrum View **Readings for 09/03:** *An Introduction to Music Technology* - Chpt. 5 - Chpt. 6 **Quiz 1** due by Sunday 08/31 11:59pm
Week 3 (09/01 - 09/07)	Monday (09/01) **NO CLASS (Holiday)** Wednesday (09/03) Lab Equipment Overview; Digital Audio Data **Readings for 09/05:** *An Introduction to Music Technology* - Chpt. 4 Friday (09/05) Logic Pro X Overview

	Readings for 09/10: *An Introduction to Music Technology* - Chpt. 8
Week 4 (09/08 - 09/14)	Monday (09/08) Working with Audio in Logic Pro X Wednesday (09/10) Overview on MIDI, Software Instrument, and Sequencing **Readings for 09/15:** *An Introduction to Music Technology* - Chpt. 13 Friday (09/12) Working with MIDI in Logic Pro X **Readings for 09/17:** *An Introduction to Music Technology* - Chpt. 11 **Quiz 2** due by Sunday 09/14 11:59pm
Week 5 (09/15 - 09/21)	Monday (09/15) Sampling Techniques in Logic Pro X Wednesday (09/17) Synthesis Basics Friday (09/19) Lab/Q&A
Week 6 (09/22 - 09/28)	Monday (09/22) Alchemy Synth in Logic Pro X Final Group Project Introduction and Group Assignment **Sequencing Assignment 1** due by Monday 09/22 11:59pm Wednesday (09/24) Synthesis Demo in Logic Pro X (Alchemy); Q&A Friday (09/26) Lab/Q&A **Quiz 3** due by Sunday 09/28 11:59pm
Week 7 (09/29 - 10/05)	Monday (09/29) Audio Plug-ins: Distortion, and Time-based Effects Wednesday (10/01)

	SIgnal Flow in Logic Pro X Friday (10/03) Lab/Q&A **Final Group Project Proposal** due by Sunday 10/05 11:59pm
Week 8 (10/06 - 10/12)	Monday (10/06) Lab/Q&A **Sequencing Assignment 2** due by Monday 10/06 11:59pm Wednesday (10/08) Lab/Q&A Friday (10/10) Lab/Q&A **Quiz 4** due by Sunday 10/12 11:59pm
Week 9 (10/13 - 10/19)	Monday (10/13) Production Q&A or Lab/Q&A Wednesday (10/15) Lab/Q&A Friday (10/17) **NO CLASS (Homecoming)** **Readings for 10/20:** *An Introduction to Music Technology* - Chpt. 10 **Peer Feedback** due by Friday 10/17 11:59pm **Final Group Project First Draft** due by Friday 10/17 11:59pm
Week 10 (10/20 - 10/26)	Monday (10/20) Final Group Project First Draft Showcase Wednesday (10/22) MIDI CC in Logic Pro X Friday (10/17) Lab/Q&A **Quiz 5** due by Sunday 10/26 11:59pm
Week 11 (10/27 - 11/02)	Monday (10/27) Automation and Selection-based Processing in Logic Pro X

	MIDI CC Assignment due by Monday 10/27 11:59pm Wednesday (10/29) Audio Plug-ins: EQ Friday (10/31) Lab/Q&A
Week 12 (11/03 - 11/09)	Monday (11/03) Audio Plug-ins: Advanced EQ **Automation Assignment** due by Monday 11/03 11:59pm Wednesday (11/05) Audio Plug-ins: Compression and Miscellaneous Effects Friday (11/07) Lab/Q&A **Quiz 6** due by Sunday 11/09 11:59pm
Week 13 (11/10 - 11/16)	Monday (11/10) Audio Mixing in Logic Pro X Wednesday (11/12) Audio Mixing in Logic Pro X (cont.) Friday (11/14) Lead Sheet Notation; Musescore Basics or Lab/Q&A
Week 14 (11/17 - 11/23)	Monday (11/17) Lab/Q&A Wednesday (11/19) Lab/Q&A Friday (11/21) Lab/Q&A
Week 15 (11/24 - 11/30)	Monday (11/24) **NO CLASS (Holiday)** Wednesday (11/26) **NO CLASS (Holiday)** Friday (11/28) **NO CLASS (Holiday)**
Week 16 (12/01 - 12/07)	Monday (12/01) Lab/Q&A

	Wednesday (12/03) Final Group Project Showcase Friday (12/05) **NO CLASS (Reading Days)** **Lead Sheet Assignment** and **Final Group Project** **due by Sunday 12/07 11:59pm**

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center. See the "Get Started With the DRC" webpage on the Disability Resource Center site. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Technology

The use of cell phones during class is not permitted, nor is the use of computers for non-class-related activities. It is not only the instructor's right, but their responsibility to remove obstacles to learning. Inappropriate technology use in class interrupts the student's concentration, distracts other students, and is disrespectful to the instructor. Students accessing the textbook electronically on a tablet or laptop are asked to turn off notifications on their device, or, if possible, turn off wi-fi completely or close their web browser.

Academic Policies & Resources

Information about university-wide policies and resources can be found here: https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/