Course Syllabus

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OFFICE HOURS: (will be posted by week 2 after studio assignments)

DIGITAL ORCHESTRATION | UNT College of Music

COURSE DESCRIPTION

Advanced techniques and practices around digital orchestration—MIDI programming, sample selections, and DAW workflows facilitating the production of life-like virtual digital band and/or orchestra recordings. Assignment sequence begins with programming individual digital instrument performances, moving on to chamber ensembles, and finally programming full-scale virtual band or orchestra. For the final project, students produce a virtual band, concert orchestra, or film score orchestra recording to professional standards.

PREREQUISITES

- workflow proficiency in Logic Pro or Cubase.
- baseline knowledge of instrumentation (MUCP 3320 equivalent)
- some previous experience in composing for or arranging for acoustic instrumental ensembles

REQUIREMENTS

Students will be required to produce a number of project assignments using professional DAW software and acoustic sample library sound sets. Students are solely responsible for facilitating access to these resources for outside class work.

The UNT College of Music Computer Lab has four media composition workstations outfitted with the necessary hardware and software. Responsibility for scheduling time at these workstations is the sole responsibility of the student. As these resources are limited, the instructor cannot guarantee their access which will be on a first-come-first-serve basis using an online registration system. The instructor will work to maintain coordinated efforts with computer lab staff to facilitate adequate media comp workstation

access as possible. It is agreed that by taking this class, the student acknowledges that any difficulty scheduling adequate workstation time will not be accepted as excuse for any late or incomplete work.

GRADED ASSESSMENTS

- assignments
- participation: in-class
- participation: attendance (3 unexcused absences lowers one letter grade, 5 unexcused absences lowers two letter grades, 6 or more is an automatic fail)
- participation: online discussions
- final digital orchestration project
- (graduate students will be assigned an additional specialized orchestration project or an analysis project/demonstration)

GRADING PERCENTAGES

- Assignments: 35%
- Participation: 35%
- Final Project: 30%

SCALES

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = Below 60%

REQUIRED MATERIALS

Ownership of, or access to, professional DAW software and acoustic sample library sound sets (as stated above).

TOPICS AND TECHNIQUES

- digital orchestration overview
- multi-sampling techniques
- audio/midi signal path workflows
- midi protocols
- DAWs and sample host programs
- sample libraries
- composition templates demonstration
- humanization: sample articulations
- humanization: sampler controllers
- expression maps (Logic / Cubase)

- humanization: tempo maps
- humanization: physics and acoustics
- humanization: syntactic inaccuracy
- workflows: start with existing audio recording source
- workflows: start with live MIDI recording
- workflows: start with existing MIDI recording source
- templates: choosing libraries
- templates: workflow design
- templates: resource management
- templates: audio signal path design
- mixing: spatial signature normalizing
- mixing: individual positioning and EQ
- mixing: automation techniques
- mastering: dynamics and loudness
- mastering: EQ matching to reference

SCHEDULE

Week 1

Digital Orchestration Overview

Week 2

Sample Libraries

Week 3

Idiomatic sounds and MIDI Controllers

Week 4

Tempo Maps

Week 5

Expression Maps

Week 6

DAW Template Design

Week 7

DAW Template Design

Week 8-10

Digital Reproduction from Existing Recording

Week 11-12

Digital Reproduction from Existing Score

Week 13

Spatial Normalization / Mixing and Mastering

Week 14-15

Final Project Labs and Presentations

UNIVERSITY INFORMATION AND POLICIES

Academic Integrity **vpaa.unt.edu/dcgcover/resources/integrity (http://vpaa.unt.edu/dcgcover/resources/integrity)**

Student Behavior **deanofstudents.unt.edu/conduct (https://deanofstudents.unt.edu/conduct)**

Access to Information – Eagle Connect **eagleconnect.unt.edu (http://eagleconnect.unt.edu/)**

Office of Disability Accommodation (ODA) **disability.unt.edu (http://disability.unt.edu/)** phone: (940) 565-4323

Statement on Diversity **idea.unt.edu/diversity-inclusion (https://idea.unt.edu/diversity-inclusion)**

Health and Safety **music.unt.edu/student-health-and-wellness (https://music.unt.edu/student-health-and-wellness)**

Academic Calendar, Fall 2023 **Fall 2023 Academic Calendar (https://registrar.unt.edu/registration/fall-registration-guide)**

Final Exam Schedule **registrar.unt.edu/exams/final-exam-schedule (https://registrar.unt.edu/exams/final-exam-schedule/)**

Financial Aid and Satisfactory Academic Progress

Undergraduates **financialaid.unt.edu/sap (http://financialaid.unt.edu/sap)**

Graduates **financialaid.unt.edu/sap (http://financialaid.unt.edu/sap)**

Retention of Student Records **ferpa.unt.edu (http://ferpa.unt.edu/)**

Student Resources **success.unt.edu/aa-sa-resources (https://success.unt.edu/aa-sa-resources)**

Care Team **studentaffairs.unt.edu/care-team (https://studentaffairs.unt.edu/care-team)**

Counseling and Testing

UNT's Center for Counseling and Testing **studentaffairs.unt.edu/counseling-and-testing-services (http://studentaffairs.unt.edu/counseling-and-testing-services)** . More information on mental health issues

speakout.unt.edu (http://speakout.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 12th 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 2023 is September 1st. Information about add/drop may be found at **registrar.unt.edu/registration/fall-registration-guide (https://registrar.unt.edu/registration/fall-registration-guide)** .

GRADUATE STUDENT ADDENDUM

Graduate students are responsible for the following additional requirements.

Graduate students will complete an additional final project assignment embodying significant original research utilizing digital orchestration techniques learned in class. Assessments of this additional work will be reflected in the student's "final project" percentage assessment. Two **additional one-hour group meetings** will be scheduled by instructor with enrolled graduate students to discuss project proposals and work progress. Participation in these discussions will apply to each student's final "class/lab participation" percentage assessment.

Course Summary:

Date	Details	Due
Thu Sep 22, 2022	**Assignment 4: Tempo Map Exercise [graded] Copy** (https://unt.instructure.com/courses/94959/assignments/1849839)	due by 11:59pm
Tue Sep 27, 2022	**Assignment 5: Expression/Articulation Maps [graded] Copy 2** (https://unt.instructure.com/courses/94959/assignments/1849841)	due by 11:59pm
Wed Aug 23, 2023	**Discussion 1.1: WHO are You? [graded]** (https://unt.instructure.com/courses/94959/assignments/1849835)	due by 11:59pm
	Discussion 1.2: Digital Orchestration Examples [graded] (https://unt.instructure.com/courses/94959/assignments/1849828)	due by 11:59pm
Mon Sep 4, 2023	**Discussion 2: Sample Library Explorations [graded]**	due by 11:59pm

Date	Details	Due
	(https://unt.instructure.com/courses/94959/assignments/1849829)	
Wed Sep 6, 2023	Discussion 3a: Idiomatic Instrumental Sounds [graded] (https://unt.instructure.com/courses/94959/assignments/1849830)	due by 11:59pm
Mon Sep 11, 2023	Discussion 3b: Idiomatic Instrumental Mockup [graded] (https://unt.instructure.com/courses/94959/assignments/1849831)	due by 11:59pm
	Assignment 11: Digital Reproduction From Existing Sheet-music Score [graded] (https://unt.instructure.com/courses/94959/assignments/1849836)	
	Assignment 13: Spatial Normalization Mix Exercise [graded] (https://unt.instructure.com/courses/94959/assignments/1849837)	
	Assignment 4: Tempo Map Exercise [graded] (https://unt.instructure.com/courses/94959/assignments/1849838)	
	Assignment 5: Expression/Articulation Maps [graded] (https://unt.instructure.com/courses/94959/assignments/1849840)	
	Assignment 6: Orchestration Template v1 [graded] (https://unt.instructure.com/courses/94959/assignments/1849842)	
	Assignment 7: Orchestration Template v2 (VE Pro) [graded] (https://unt.instructure.com/courses/94959/assignments/1849843)	
	Assignment 8: Digital Reproduction of Existing Instrumental Recording (phase 1) [graded] (https://unt.instructure.com/courses/94959/assignments/1849844)	
	Assignment 9: Digital Reproduction of Existing	

Date	Details	Due
	Instrumental Recording (phase 2) [graded] (https://unt.instructure.com/courses/94959/assignments/1849845)	
	Discussion 10: Assignment 9 Progress Demonstrations [graded] (https://unt.instructure.com/courses/94959/assignments/1849833)	
	Discussion 11-12: Assignment 11 Progress Demonstrations [graded] (https://unt.instructure.com/courses/94959/assignments/1849834)	
	Discussion 4: Musical Tempo Example [graded] (https://unt.instructure.com/courses/94959/assignments/1849832)	
	Final Project: Digital Orchestration [graded] (https://unt.instructure.com/courses/94959/assignments/1849846)	
	Participation Assessment (https://unt.instructure.com/courses/94959/assignments/1849847)	
	QUIZ 3: MIDI protocols and controllers [graded] (https://unt.instructure.com/courses/94959/assignments/1849827)	