

Course Syllabus

Course Prefix, Number, and Title:

DAD 492 - Topics: Programming for Sound Design

Credits:

3

University Name:

Dakota State University

Academic Term/Year:

Fall 2022

Last date to Drop and receive 100% refund:

September 1st

Last date to Withdraw and earn a grade of 'W':

September 28th

Course Meeting Time and Location:

Tuesday / Thursday 1:00 PM - 2:15 PM TCB 209

Instructor Information:**Name:**

Tate Carson

Office:

TCB 305

Email Address:

Tate.carson@dsu.edu

Office Hours:

Monday – Thursday 10 am – 12 pm

Additional meeting time upon request

Approved Course Description:**Catalog Description:**

A course devoted to a particular issue in a specified field. Course content is not wholly included in the regular curriculum. Guest artists or experts may serve as instructors. Enrollments are usually limited with significant one-on-one student-teacher involvement.

Additional Course Information:

An introduction to audio coding and digital music composition using the Web Audio API.

Students will complete guided exercises, assignments, and composition projects. A particular emphasis is placed on interaction to encourage listener engagement.

Prerequisites:

Technology Skills:

Basic computer skills

Course Materials:

Required Textbook(s):

none

Required Supplementary Materials:

<< Supplements >>

Optional Materials:

<< Optional materials >>

Student Support:

DSU Knowledge Base:

The DSU Knowledge Base contains links and resources to help students by providing information about the following topics: User Accounts & Passwords, Academic Tools & Resources, Software & Apps Support, WiFi & Network Access, Campus Emergency Alert System, Campus Printing, IT Security & Safe Computing, and the Support Desk (which is there to help both on and off-campus students). The Knowledge Base can be accessed through the link below:

- [DSU Knowledge Base](#)

D2L Support for Students:

The D2L Support for Students site is designed to provide DSU students a D2L support resource center that contains user guides, tutorials, and tips for using the D2L learning environment. The D2L Support for Students site can be accessed through the link below:

- [DSU D2L Support Resources for Students](#)

Course Delivery and Instructional Methods:

This is a Discussion/Recitation course. Topics are explored in this course through short lectures, class discussion, instructor guided activities, individual student projects, and collaborative work.

Classroom Policies:

Attendance and Make-up Policy:

Students are expected to attend all scheduled classes. After **three** unexcused absences, 10 points will be deducted from the attendance grade for each additional absence.

Any excused absences must be communicated with me by email before the start of class. Explain why you are missing and when you will be returning to class. Failure to send an email will result in an unexcused absence.

Late work will only be accepted with a documented excuse. Students may redo work they received an undesirable grade on once, but only if they turned in something by the original due date. The deadline for redoing work is a week after the original due date. After this time, no late work will be accepted.

Accessibility Statement:

Dakota State University strives to ensure that physical resources, as well as information and communication technologies, are reasonably accessible to users in order to provide equal access to all. If you encounter any accessibility issues, you are encouraged to immediately contact the instructor of the course and Dakota State University's ADA Office, which will work to resolve the issue as quickly as possible.

DSU's ADA Office is located in the Learning Engagement Center and can be contacted by calling 605-256-5121 or emailing dsu-ada@dsu.edu. Students seeking ADA accommodations (such as non-standard note taking or extended time and/or a quiet space taking exams and quizzes) can log into the DSU portal to access <https://portal.sdbor.edu/dsu-student/student-resources/disability-services/Pages/default.aspx/> for additional information and the link to the Disability Services Request Form. You will need to provide documentation of your disability and the ADA Coordinator must confirm the need before officially authorizing accommodations.

Academic Honesty Statement:

Cheating and other forms of academic dishonesty run contrary to the purpose of higher education and will not be tolerated in this course. Please be advised that, when the instructor suspects plagiarism, the Internet and other standard means of plagiarism detection will be used to resolve the instructor's concerns. The South Dakota Board of Regents Student Academic Misconduct Policy can be found here: [SDBOR Policy 2.33](#).

All forms of academic dishonesty will result in << insert class specific Academic dishonesty standards here >>

Communication and Feedback:

Preferred Email Contact Method:

Tate.carson@dsu.edu

Email Response Time:

Maximum of 48 hours when class is in session

Feedback on Assignments:

Within one week of the assignment due date

Names and Pronouns:

At DSU everyone has the right to be addressed by the name and personal pronouns that correspond to their gender identity, including non-binary pronouns, for example, they/them/theirs, ze/zir/zirs, etc. Students can request a name change using the **Change Name/Preferred Name or Address** form at <https://support.dsu.edu/>. This will change the display name in D2L and across other campus systems. Students can always email me to let me know what pronouns they use.

To create and maintain an inclusive learning environment, it is important that we respect the names and pronouns of our peers in this class. I expect everyone to be serious and respectful when classmates share their names and pronouns. Mistakes in addressing one another may happen. If you hear someone make a mistake, please correct them and move on. ("I think Sam uses they, not she.") If you make a mistake or are corrected, please say "thank you" and move

on. ("Thank you. They made a great point about the film.") To learn more about pronouns and why they are important please visit <https://www.mypronouns.org/>

Student Learning Outcomes:

Students will learn audio programming basics and develop software tools for real-time digital signal processing, sound design, synthesis, and computer-assisted composition. Students will complete a final composition project integrating different aspects of the course's topic areas using the Web Audio API.

Evaluation Procedures:

Assessments:

Attendance/Participation: 30 %

Projects: 50%

Final project and proposal: 20%

Final Examination:

Final project presentation time: Thursday, December 8th, 1:00 pm – 3:00 pm

Performance Standards and Grading Policy:

90% and above = A

80%-89% = B

70%-79% = C

60% - 69% = D

59% or below = F

Student Verification Statement and Proctoring Policy:

Federal law requires that universities verify the identity of students when course materials and/or course assessment activities are conducted either partially or entirely online. A student's Desire2Learn (D2L) login and password are intended to provide the student with secure access to course materials and are also intended to help the university meet this federal mandate. Some DSU Faculty also require the use of a proctor for exams in distance-delivered (Internet) courses and this requirement provides a second level of student identity verification. Students are responsible for any proctoring fees, if applicable. Finally, an instructor who uses web conferencing technology may require students to use a webcam during exams as another means of student identity verification through voice and visual recognition.

<< For online courses, include the verification method used for the course (i.e., proctoring, portfolio, oral exam, student observation, etc.) >>

Tentative Course Outline and Schedule:

Week	Date	Topics, Assignments, Quizzes, Tests, Deadlines
1	8/22	<p>Introduction to coding and creativity</p> <ul style="list-style-type: none">• Review syllabus• Why interaction? <p>9/1 – Census Day</p>

Week	Date	Topics, Assignments, Quizzes, Tests, Deadlines
2	8/29	<p>Score as code, code as score</p> <ul style="list-style-type: none"> • Introduction to JavaScript • Web audio basics and sound file players
3	9/5	<p>Interfaces</p> <ul style="list-style-type: none"> • Examples of interfaces • Mapping • Design rules • Introduction to p5.js • Introduction to Project 1 - Build a sampler • Scores
4	9/12	<p>Synthesis in Tone.js</p> <ul style="list-style-type: none"> • Project 1 - Build a sampler DUE • Adding effects and intro to synthesis • Making synthesizers from scratch • Introduce Project 2 - Creating a synthesizer from scratch
5	9/19	<p>Process and generative music</p> <ul style="list-style-type: none"> • Project 2 - Synth from scratch DUE • Process music • Randomization and patterns • Scheduling signal and LFOs • Instruments and Sequencers • Create a score • Introduce Project 3 – Realize your score as code
6	9/26	<p>More musical complexity</p> <ul style="list-style-type: none"> • Rhythm / Scales / Tuning • Sound and animation • Introduce Assignment 4 – Midterm
7	10/3	<p>Sonification</p> <ul style="list-style-type: none"> • Assignment 3 - Realize your score as code DUE • Dealing with real-time data sources • Introduce Assignment 5 – Sonification

Week	Date	Topics, Assignments, Quizzes, Tests, Deadlines
8	10/10	<p>Mobile/networked Music</p> <ul style="list-style-type: none"> • Assignment 4 – Midterm DUE • Examples of networked music
9	10/17	<p>More Mobile Music</p> <ul style="list-style-type: none"> • Assignment 5 Sonification DUE
10	10/24	<p>Weird Synthesis</p> <ul style="list-style-type: none"> • Granular synthesis • Audio analysis • Machine learning
11	10/31	<p>Live Coding</p> <ul style="list-style-type: none"> • Ethos of Live Coding • Tools – Gibber, Sema, Glicol, Strudel
12	11/7	<p>Live Coding</p> <ul style="list-style-type: none"> • Live coding performance
13	11/14	<p>Final Project</p> <ul style="list-style-type: none"> • Start on your final project
14	11/21	<p>Final Project</p> <ul style="list-style-type: none"> • Thursday - Thanksgiving - No classes
15	11/28	<p>Work on Final Project</p>
16	12/5	<p><i>Exam Week/Final Presentation</i></p> <p>Required presentation of final project Thursday, December 8th, 1:00 pm – 3:00 pm</p>

Freedom in Learning Statement:

Students are responsible for learning the content of any course of study in which they are enrolled. Under Board of Regents and University policy, student academic performance shall be evaluated solely on an academic basis and students should be free to take reasoned exception to the data or views

offered in any course of study. It has always been the policy of Dakota State University to allow students to appeal the decisions of faculty, administrative, and staff members and the decisions of institutional committees. Students who believe that an academic evaluation is unrelated to academic standards but is related instead to judgment of their personal opinion or conduct should contact the dean of the college which offers the class to initiate a review of the evaluation.

COVID-19 Policies:

During this pandemic, students must abide by all DSU policies and public health rules put forward by the state of South Dakota, the Board of Regents, and Dakota State University to promote the health and well-being of fellow students and your own personal self-care.

As with other disruptive behaviors, we have the right to dismiss you from the classroom (Zoom and physical), or other class activities if you fail to abide by these COVID-19 policies. You will also be alerted to any possible course format changes in response to DSU decisions about COVID-19 during the semester. Please visit <https://dsu.edu/covid-19.html> for more information about COVID-19 policies at DSU.