



COURSE SYLLABUS

Course Prefix, Number, and Title

DAD 422: Audio Production III: Advanced Techniques and MIDI Music

Credits

3

University Name

Dakota State University

College and Department

College of Arts and Sciences, Department of Arts and Humanities

Academic Term/Year

Fall 2026

Last date to Drop and receive 100% refund

September 3, 2026

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

November 6, 2026

Course Meeting Time and Location

Monday, Wednesday, and Friday, 3:00-3:50 p.m., TCB 209 / Studio A / Studio B.

Instructor Information

Name

Tate Carson

Office

TCB 305

Phone Number(s)

605-681-6183

Email Address

Tate.Carson@dsu.edu

Office Hours

Monday, Wednesday, and Friday: 10:00–10:50 a.m. and 12:00–1:50 p.m.; additional times by appointment.

Book an appointment on the [office-hours scheduling page](#).

Approved Course Description

Catalog Description

Builds upon Audio Production II. Instructs in advanced multi-track editing techniques including advanced audio mixing, signal processing, and critical listening. Also covers business practices for the music industry and career preparation, including copyright law, resume building, and online music marketing and promotion.

Additional Course Information

The Fall 2026 course focuses on spatial and immersive audio. Students move from mono and stereo listening through binaural sound, Ambisonics, cinema surround, and Dolby Atmos workflows while considering how spatial placement, movement, and room response shape musical and narrative experience.

Prerequisites

Course Prerequisite(s)

DAD 322.

Technology Skills

- Working knowledge of digital audio recording, editing, mixing, and signal processing.
- Ability to manage multichannel sessions, routing, media files, and studio hardware.

Student Learning Outcomes

By the end of this course, students will be able to:

- Explain perceptual and technical principles that distinguish mono, stereo, binaural, Ambisonic, surround, and object-based audio.
- Configure and use multichannel routing, monitoring, recording, panning, processing, and delivery workflows.
- Create spatial-audio productions using REAPER, Logic Pro, Ambisonic tools, and immersive monitoring systems.
- Evaluate spatial mixes critically and make defensible aesthetic and technical decisions for different formats and audiences.

Course Materials

Required Textbook(s)

No textbook is required. Readings and listening materials will be provided through D2L.

Required Supplementary Materials

Studio-quality, wired, over-ear headphones are required. A limited number may be rented through the department. Required software: REAPER, Ambisonic Toolkit, Anaglyph, and Logic Pro. Additional plug-ins and resources will be introduced as needed.

Optional Materials

None.

Course Delivery and Instructional Methods

This course meets in person and uses the following instructional methods:

- In-person, project-based lectures, listening demonstrations, and technical workshops.
- Studio and immersive-audio lab sessions.
- Independent research and production work.
- Peer critique, mix reviews, and project presentations.

Communication and Feedback

Preferred Contact Method

Email: Tate.Carson@dsu.edu

Email Response Time

I will respond within 48 hours on days when classes are in session.

Feedback on Assignments

Students can expect feedback within one to two weeks after an assignment's automatic grace period closes.

Requirements for Course Interaction

Course discussions, critiques, and collaborative studio work should be respectful, specific, and attentive. Critique the work and its technical or aesthetic choices rather than the person, and follow the same expectations in D2L communication.

Evaluation Procedures

Assessments

The final grade is a composite of attendance and participation, course projects and assignments, and the final project.

- **Attendance and participation - 30%**
 - Includes one 50-point attendance item plus preparation, in-class activities, exercises, critiques, discussions, and other participation-based assignments.
- **Projects - 50%**
 - Project 1: Mono Sound Walk.
 - Project 2: Binaural/Stereo.
 - Project 3: Ambisonics.
 - Project 4: Dolby Atmos Mix.
- **Final self-directed project - 20%**
 - A spatial-audio project developed through proposal, technical setup, work-in-progress critique, final delivery, and presentation.

Project weights within the Projects and Assignments category follow their posted point values. Detailed requirements and rubrics are provided on the course website and in D2L; students should review them before beginning and submitting.

Final Examination

Monday, December 14, 2026, 3:30-5:30 p.m.

The final project presentation and review held during the officially scheduled final-exam period serve as the final examination. Attendance during the final-exam period is required.

Performance Standards and Grading Policy

- A: 90–100%
- B: 80–89%
- C: 70–79%
- D: 60–69%
- F: 59% or below

Tentative Course Outline and Schedule

The schedule below is a planning snapshot. The course website is the source of truth for current content and project instructions; D2L is the source of truth for submission deadlines and recorded grades. Changes will be announced in class and posted in D2L.

Table 1 Tentative Course Outline and Schedule

Week	Date	Topics, Assignments, Quizzes, Tests, Deadlines
1	Aug. 24-28	Sound foundations; acoustic waves; space and time in recorded sound. Assignments/deadlines: Listening and studio exercises.
2	Aug. 31- Sept. 4	Historical context; introduction to spatial audio and mono composition. Assignments/deadlines: Project 1 introduced; due Sept. 14.
3	Sept. 7-11	Labor Day - no class Sept. 7; distance perception and psychoacoustics. Assignments/deadlines: Project 1 work.
4	Sept. 14-18	Stereo reproduction and recording; introduction to binaural audio. Assignments/deadlines: Project 1 due Sept. 14; Project 2 introduced. No class Sept. 18.
5	Sept. 21-25	Binaural production and Anaglyph; room calibration; Ambisonics theory. Assignments/deadlines: Project 2 work; due Oct. 9.
6	Sept. 28-Oct. 2	Ambisonic recording, Ambisonic Toolkit, mixing, and YouTube 360 delivery. Assignments/deadlines: Project 3 introduced; due Oct. 19.
7	Oct. 5-9	Cinema-surround history; 5.1 aesthetics and workflow. Assignments/deadlines: Project 2 due Oct. 9.
8	Oct. 12-16	Native American Day - no class Oct. 12; ReaSurroundPan; binaural listening and Ambisonics check-in. Assignments/deadlines: Project 3 work.
9	Oct. 19-23	7.1 lab; introduction to Dolby Atmos and object-based audio. Assignments/deadlines: Project 3 due Oct. 19.
10	Oct. 26-30	Apple Music Atmos; Logic Pro spatial workflow. Assignments/deadlines: Project 4 introduced; due Nov. 16.
11	Nov. 2-6	Like Lambs 7.1 lab; commercial and hybrid playback systems. Assignments/deadlines: Project 4 work; withdrawal deadline Nov. 6.
12	Nov. 9-13	Atmos delivery; advanced Ambisonics; ATMI conference. Assignments/deadlines: Progress bounce due in D2L; no class Nov. 11 or 13.
13	Nov. 16-20	Project review; final project introduction and proposal workshop; SpatGris. Assignments/deadlines: Project 4 due Nov. 16.
14	Nov. 23-27	Proposal presentations; Thanksgiving recess. Assignments/deadlines: Final proposal due Nov. 23.
15	Nov. 30-Dec. 4	Final-project setup; research showcase; midpoint critique. Assignments/deadlines: Research showcase Dec. 2.

Week	Date	Topics, Assignments, Quizzes, Tests, Deadlines
16	Dec. 7-9	Progress reviews, course evaluation, final questions; Reading Day Dec. 9. Assignments/deadlines: Final presentation Dec. 14, 3:30-5:30 p.m.

Student Success Services and Supports

ADA Accommodations

Dakota State University strives to ensure that physical resources, as well as information and communication technologies, are reasonably accessible to users 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 Office of Disability Services, which will work to resolve the issue as quickly as possible.

DSU's Office of Disability Services is located in the Learning Engagement Center and can be contacted by calling 605-256-5121 or emailing [DSU ADA Email Link](#). Students seeking ADA accommodations (such as non-standard note taking or extended time and/or a quiet space taking exams and quizzes) can access the DSU website [Student Life Disability Services](#) 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.

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 with 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](#)

Classroom Policies

Attendance and Make-up Policy

Attendance is a 50-point item in the combined Attendance and Participation category. The first three unexcused absences do not reduce the score. Beginning with the fourth, 10 points are deducted for each additional unexcused absence: 0-3 = 50; 4 = 40; 5 = 30; 6 = 20; 7 = 10; 8 or more = 0. Excused absences recognized under university policy do not count toward this total. Participation-based assignments are entered separately in the same category, which is calculated from total points earned across all attendance and participation items.

Excused absences require an emailed explanation before class. When applicable, documentation may include a medical note, documentation of a family emergency, or an official university notice for university-sponsored travel or events.

Every assignment has an automatic 72-hour grace period; no request is needed. D2L shows the original due date and remains open until the grace period ends. Grading normally begins after that window closes.

After the grace period, work is accepted only for a documented excused absence, an approved accommodation, or another arrangement made with the instructor. Work tied to a scheduled presentation, critique, or collaborative activity must be ready on that date to receive credit for that portion.

Unless an assignment specifically includes a revision stage, graded work will not routinely be revised and regraded.

Studio, Equipment, and Hearing Safety

Students are responsible for following the studio, equipment, field-recording, and hearing-safety guidance presented in class and on the course website.

AI Use Policy

AI-assisted tools embedded in audio software—including noise reduction, stem separation, smart equalization, or automated mastering—may be used when appropriate, but their use must be disclosed in the submission notes.

Generative systems may not create music, sound effects, dialogue, written analysis, or other material submitted as the student's own unless an assignment permits it. Students are responsible for the accuracy, legality, and ethical use of their work and must be able to explain their technical and creative decisions. If unsure whether a tool is permitted, ask before submitting.

DSU Policies

Complaint Procedure

Dakota State University seeks to resolve student concerns and complaints in a fair and prompt manner. Students may file a complaint using the [DSU Concerns and Feedback form](#). SARA complaints from out-of-state students may be filed using the procedures noted [on the SARA complaint procedures page](#).

Grade Appeal Policy

If a student believes the final grade assigned in a course was inappropriate, he/she may appeal that grade by filing a formal grade appeal within 15 days of the start of the next academic session. Please see the DSU policy on [Appealing Academic and Administrative Decisions](#) for the required process and form to appeal a final grade.

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.

South Dakota Board of Regents Policy Statements

Freedom in Learning Statement

Under Board of Regents and Regental Institutions policy, student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Discussion and debate are critical to education and professional development. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. While the exploration of controversial topics may be an important component of meeting the student learning outcomes in a course, no student will be compelled or directed to personally affirm, adopt, or adhere to any divisive concepts (as defined in SDCL 13-1-67). Students who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should contact their home institution to initiate a review of the evaluation.

ADA Statement

The Regental Institutions strive to ensure that physical resources, as well as information and communication technologies, are reasonably accessible to users to provide equal access to all. If you encounter any accessibility issues, you are encouraged to immediately contact the instructor of the course and the Office of Disability Services, which will work to resolve the issue as quickly as possible. Please note: if your home institution is not the institution you are enrolled at for a course (host institution), then you should contact your home institution's Office of Disability services. The disability services at the home and host institution will work together to ensure your request is evaluated and responded to in a timely manner.

Academic Dishonesty and Misconduct

Cheating and other forms of academic dishonesty and misconduct run contrary to the purposes of higher education and will not be tolerated. Academic dishonesty includes, but is not limited to, plagiarism, copying answers or work done by another student (either on an exam or an assignment), allowing another student to copy from you, and using unauthorized materials during an exam. The Regental Institution's policy and procedures on cheating and academic dishonesty can be found in your home institution's Student Handbook and the governing Board of Regents policies can be found in [BOR Policy 2.9.2](#) and [BOR Policy 3.4.1](#). The consequences for cheating and academic dishonesty are outlined in policy.

Acceptable Use of Technology

Acceptable Use of Information Technology Resources: While Regental Institutions strive to provide access to computer labs and other technology, it is the student's responsibility to ensure adequate access to the technology required for a course. This may include access to a computer (not Chromebooks, iPads, etc.), webcam, internet, adequate bandwidth, etc. While utilizing any of the information technology systems students, faculty and staff should observe all relevant laws, regulations, [BOR Policy 7.1](#), and any institutional procedural requirements.

Emergency Alert Communication

In the event of an emergency arising on campus under [BOR Policy 7.3](#), your Regental Home Institution will notify the campus community via the emergency alert system. It is the responsibility of the student to ensure that their information is updated in the emergency alert system. The student's cell phone will be automatically inserted if available and if not, their email

address is loaded. Students can at any time update their information through the student alert system.