

IDSN 599-Special Topics: Sound and Story

Units: 2.0

Summer 2020-Thursdays 7:30-9:35 pm PST

Location: Online

Instructor: Wayne Jones

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Hours of Service: 8:30 am - 5:00 pm

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Course Description

Every design tells a story. And to the extent that the designer understands their user, this story will resonate with the specific needs and aspirations of their target audience.

The invisible and often unconsidered character in this story is Sound.

When designed effectively, Sound and Audio have the ability to support and augment the story of products, experiences, presentations and branding in ways that add tremendous value for designers, businesses and their end users.

The course will be divided into three modules:

- 1) Understanding the Fundamentals of Multimedia Sound Design (5 weeks)
- 2) Developing Strategies for Audio and Product Integration (5 weeks)
- 3) The Role of Audio in Environmental Design and Immersive Environments (2 weeks)

Instruction will include lectures, demonstrations, project assignments, quizzes and exams.

Learning Objectives and Outcomes:

In this course, the student will learn to approach Sound for Multimedia, Product and Experiential Design with the writer's mindset. Upon completion of this course, students will be able to:

- Understand the fundamental elements of Multimedia Sound Design and how to advance important elements of Narrative and Story like time and place, action and pacing, and dramatic impact.
- Explore and understand the unique ability of audio to persist in memory.

- Develop strategies for Audio and Product Integration with the goal of enhancing perceived quality, brand loyalty and trust, and the enhancement of HCI (Human Computer Interaction) through auditory feedback and reinforcement.
- Understand the fundamentals of VUI (Voice User Interface) design and the growing impact of voice technology as the natural evolution in Search,
 Smart Product Design and Marketing Communication.
- Understand the role of audio in Environmental Design, Immersive Environments such as AR/VR and other forms of interactive media.

Specific Topics to be Covered:

- Understanding how sound affects us
- · Creating a sound palette informed by narrative
- Serving the Story: Sound in its proper context
- · Sound as Meaning in Product Design
- Conversation Design
- The Effect of Sound in Environment and Experience
- Communicating with creative team members, producers and product managers
- Fundamental skills and techniques for high quality recording, editing and audio media integration

Course Notes

Students are responsible for all asynchronous material, including video lectures, interviews, and reading publication materials assigned by instructor throughout the course.

Technological Proficiency and Hardware/Software Required

Students must provide their own laptop. The laptop specifications take into consideration that students will be creating, streaming, and downloading audio and video; communicating using video conferencing applications; and creating and storing large multimedia files.

	Apple	Windows PC
Laptop (Minimum Standards)	 2.6 GHz dual-core Intel Core i5 or 2.0 GHz quad-core Intel Core i7 Minimum 13-inch display 250 GB hard drive or larger 8 GB memory; 16 GB memory recommended 	 Intel Core i5 or Intel Core i7 Minimum 14-inch display 250 GB hard drive or larger 8 GB memory; 16 GB memory recommended

Operating System	Mac OS X or higher	• Windows 7, 8, 10, or higher	
Peripherals	 in webcam, speakers, and microp Headset Digital camera (cameras on newon External drive for cloud account 	Digital camera (cameras on newer smartphones are acceptable) External drive for cloud account for backup and storage	
Software	 Adobe Creative Cloud (Photoshop, Dreamweaver, Illustrator, and Acrobat) Apple Logic Pro X or Apple GarageBand Digital Audio Workstation Browser: Most recent version of Internet Explorer, Firefox, Chrome, or Safari 		
Network	Cable modem, DSL, T1/T3 or higher		

Description and Assessment of Assignments

The majority of assignments for this course will be project based and will relate to specific skills and concepts covered in class. Online viewing of tutorials and other video material will be assigned as well. Assignments will be assessed according to:

- 1) Adherence to instructions
- 2) Creative problem solving
- 3) Demonstrated understanding and skill in use of tools and learned techniques.

Grading Breakdown

Assignment	% of Grade
Class Participation	5
Quizzes (2)	10
Module 1 Exam	10
Module 2 Exam	10
Module 3 Exam	10
Projects	30
Final Project	25
TOTAL	100

Grading Scale

Course final grades will be determined using the following scale:

A 95-100

A- 90-94

- B+ 87-89 83-86 В B-80-82 C+ 77-79 C 73-76 C-70-72 D+ 67-69 D 63-66 D-60-62
- F 59 and below

Assignment Submission Policy

All assignments must be delivered by the date and time (<u>Pacific Time</u>) that deliverable is listed as due per instructor guidelines. The instructor will provide due dates for all assignments and deliverables during course meeting times. Late assignments will be subject to the late submission policy indicated below.

*All assignments, no matter how late, must be completed in order to pass this class.

Late Submissions

Assignments will be accepted after the deadline with the following grade penalties. Do not ask for extensions; the below are the extensions.

- Submission in the 24 hours after the deadline: 10% deduction
- Submission between 24 and 48 hours after the deadline: 20% deduction
- Submission between 48 hours and 3 days after the deadline: 50% deduction
- Submission more than 3 days will receive NO credit

Keep copies of all your files and emails until the end of the semester.

Correcting a Grading Error or Disputing a Grade

If you don't inform the instructor of missing or incorrect grades within two weeks of those grades being posted, the grades will be assumed correct. Do not wait until the semester's end to check or appeal any grades. If you feel a grade merits re-evaluation, you are encouraged, within one week of the instructor providing a grade and initial feedback, to send the instructor a memo in which you request reconsideration. The memo should include a thoughtful and professional explanation of your concerns. Be aware that the re-evaluation process can result in three types of grade adjustments: positive, none, or negative. (Note: Complaints on the date of a graded assignment's return to you will not be addressed; it is essential to wait one full day prior to raising a concern.)

Academy Attendance Policy

The Academy maintains rigorous academic standards for its students and on-time attendance at all class meetings is expected. Each student will be allowed two excused absences over the course of the semester for which no explanation is required. Students are admonished to not waste excused absences on non-critical issues, and to use them

carefully for illness or other issues that may arise unexpectedly. Except in the case of prolonged illness or other serious issue (see below), no additional absences will be excused. Each unexcused absence will result in the lowering of the final grade by ½ of a grade (e.g., an A will be lowered to A-, and A- will be lowered to a B+, etc.). In addition, being tardy to class will count as one-third of an absence. Three tardies will equal a full course absence.

Students remain responsible for any missed work from excused or unexcused absences. Immediately following an absence, students should contact the instructor to obtain missed assignments or lecture notes and to confirm new deadlines or due dates. Extensions or other accommodations are at the discretion of the instructor.

Automatically excused absences normally many not be used for quiz, exam or presentation days. Using an excused absence for a quiz, exam or presentation, such as in the case of sudden illness or other emergency, is at the discretion of the instructor.

In the case of prolonged illness, family emergencies, or other unforeseen serious issues, the student should contact the instructor to arrange for accommodation.

Accommodation may also be made for essential professional or career-related events or opportunities. All accommodations remain at the discretion of the instructor, and appropriate documentation may be required.

Additional Policies

Class notes policy: Notes or recordings made by students based on a university class or lecture may only be made for purposes of individual or group study, or for other noncommercial purposes that reasonably arise from the student's membership in the class or attendance at the university. This restriction also applies to any information distributed, disseminated, or in any way displayed for use in relationship to the class, whether obtained in class, via e-mail or otherwise on the Internet, or via any other medium. Actions in violation of this policy constitute a violation of the Student Conduct Code and may subject an individual or entity to university discipline and/or legal proceedings. Again, it is a violation of USC's Academic Integrity Policies to share course materials with others without permission from the instructor.

No recording and copyright notice: No student may record any lecture, class discussion, or meeting with the instructor without his/her prior express written permission. The word "record" or the act of recording includes but is not limited to any and all means by which sound or visual images can be stored, duplicated, or retransmitted whether by an electromechanical, analog, digital, wire, electronic, or other device or any other means of signal encoding. The instructor reserves all rights, including copyright, to his/her lectures, course syllabi, and related materials, including summaries, slides (e.g., Keynote, PowerPoint), prior exams, answer keys, and all supplementary course materials available to the students enrolled in the class whether posted to the LMS or otherwise. They may not be reproduced, distributed, copied, or disseminated in any media or in any form, including but not limited to all course note-sharing websites. Exceptions are made for

students who have made prior arrangements with The USC Office of Disability Services and Programs and the instructor.

Participation and Critiques: Students are expected to actively participate in this course. The purpose of a critique is to provide constructive feedback to each other in a safe environment that helps to push the boundaries of critical thinking and creative problem solving. In an online forum, participation includes:

- Careful reading and viewing of assigned materials by the date due
- Regular, substantive contributions to discussions
- Active engagement with online content
- On-time attendance and full attention in synchronous sessions
- Significant collaboration with classmates and teammates

Course grades for students who do not contribute to the course through active participation may be affected. Students should notify the instructor in advance if they are unable to attend.

Contact Hours

This 2-unit course requires 1500 minutes of instructional time per semester, which equals 125 minutes (2 hours and 5 minutes) of instructional time each week. In addition, it is expected that students will work, on average, an additional 240 minutes (4 hours) per week outside of class — on readings/viewings, homework assignments, field experiences, and individual or team projects. Synchronous class sessions will be offered as a regularly scheduled evening class once each week.

How to Purchase Software at the discounted Academy Rate through the USC Bookstore: The following first year software are now available for purchase online through the USC Bookstore at the Academy discounted rate:

<u>Software</u>	IYA Short-Term License at USC Bookstore
Adobe Creative Cloud	\$70 2019-2020 annual license
Apple Logic Pro	\$35 semester license

- 1. Visit the USC Bookstore online: https://www.uscbookstore.com/usciyasoftware.
- 2. Select the software license(s) you would like to purchase.
- 3. When you proceed to checkout, add the Promo Code "IYASoftware" (This will override the listed taxes).
- 4. For shipping, select FedEx Home Delivery (free).
- 5. Once you complete your online purchase, you will receive a confirmation email/receipt. (Note that even if a shipping charge appears on your invoice, it will not be charged to your credit card. This relates to a known technical problem with the Bookstore's online store.)
- 6. Upload your receipt here to receive access to your purchased license.
- 7. You will be notified by email when the license has been activated.

Course Schedule: A Weekly Breakdown

UNIT	ТОРІС	SUB-TOPICS	ASSIGNMENTS/TESTS	
MODULE 1	MODULE 1: FUNDAMENTALS OF MULTIMEDIA SOUND DESIGN			
Unit 1	 Course Introduction Instructor Introduction How Sound Affects Us 	 Psychoacoustics Response Types: Physiological Psychological Cognitive Behavioral Multimodal Perception Audio-Visual Binding Audio-Haptic Binding Crossmodal Perception 	N/A	
Unit 2	Advancing Narrative Elements With Sound	Creating a Palette Informed by: Time and Place Action and Pacing Character Story Arc	Read: Designing Across Senses, ch.6 (Park/Alderman) Multi-Modal Perception, (Lachs) Crossmodal Processing, (Spence) Assignment: 1.1 Active Listening	
Unit 3	Comparative Analysis and Application Pt.1	Sound Effects (SFX)Sound DesignUnderscore MusicSource Music	Read: • Unheard Melodies, ch.2 (Gorbman) • What Should a Brand Sound Like? (Neff) Quiz 1_In Class	
Unit 4	 Comparative Analysis and Application Pt.2 Audio Recording Basics 	Pitch DecksPitch VideosPodcast/LivestreamsFilm/TV	In-Class Deconstruction of Multimedia Sound Design	

Unit 5	Editing For Impact Editing For Impact	 Function Tone Timing Texture Pacing Dynamics OR AUDIO AND PRODUCT INTEGER	Module 1 Exam Assignment: 1.2 • Audio/Media Deconstruction GRATION
Unit 6	 Every Product Has a Voice Intentional and Consequential Sound Additive & Subtractive Audio Design 	 Conscious and Unconscious Effects of Product Sound on: Perception Cognition Experience Behavior 	Read: • The Experience of Product Sounds, (Van Egmond) • Designing with Sound, ch.2 & ch.3 (Case/Day) Assignment: 2.1 • Audio/Product Deconstruction Project
Unit 7	Sound As Meaning	 Sound as: Quality Security Precision Power Gender Identification Nostalgia 	Read: TBD Quiz 2_In Class
Unit 8	Enhancing Brand Identity. Loyalty And Trust	 Audio Branding Identity Values Reinforcement (Pavlov) Persistence of Sound in Memory 	Read: • Designing with Sound, ch.5 (Case/Day) Assignment: 2.2 • Audio Logo Mapping
Unit 9	Invisible Design HCI (Human Computer Interaction)	VUI (Voice User Interface) Conversation Design	Read: • Designing Voice User Interfaces, ch.2 (Pearl) • Secret Messages for Alexa and Co., (Ruhr) Assignment: 2.3 Alexa Skills Set Project

Unit 10	Usage Scenarios	 Frame Based Storytelling within Audio Design Process Use Scenarios Story Boarding Audio Mood Boards 	Read: • Designing Across Senses, ch.9 (Park/Alderman) Module 2 Exam
Unit 11	THE ROLE OF AUDIO IN ENVI Architectural and Environmental Psychology Impact of Noise Interactive Installations Accessibility and Advanced Auditory Signaling	 Acoustical Design as Aesthetic Reinforcement Supporting the Architects Vision Cognitive Load Stress Reduction Directed Sound and 	Read: • How Restaurants Got So Loud, (Wagner) • Warning SystemTsunami, (Wright) Assignment: 3.1 Neighborhood Walking Tour
Unit 12	 Behavior Modification Virtual Reality Augmented Reality 	Narrow Field Spotlight Gaming Interactive Installations Ambisonics Bravemind: Virtual Reality Exposure Therapy-USC ICT	Read: • Getting Your Sound Into the Game (Spanos) • How Sound Design Can Add Texture To A Virtual World (Colgan) Module 3 Exam

Reading Materials Required Reading:

Module 1

- Park, C., Alderman, J., (2018). *Designing Across Senses*. Sebastopol, *CA: O'Reilly Media, Inc*
- Lachs, L., (2020). Multi-Modal Perception. Retrieved from: https://nobaproject.com/modules/multi-modal-perception
- Spence, C., Senkowski, D., Röder, B., (2009). *Crossmodal Processing*. Retrieved from: https://link.springer.com/article/10.1007/s00221-009-1973-4
- Gorbman, C., (1987). *Unheard Melodies: Narrative Film Music*. Bloomington, IN. Indiana University Press
- Neff, J., (2019, July 16). What Should A Brand Sound Like? Retrieved from:

Module 2

- Van Egmond, R., (2008). *The Experience of Product Sounds.* (Publisher Summary) Retrieved from: https://doi.org/10.1016/B978-008045089-6.50006-X
- Case, A., (2019). Designing With Sound: Fundamentals for Products and Services. Sebastopol, CA: O'Reilly Media, Inc
- Pearl, C., (2017). Designing Voice User Interfaces. Sebastopol, CA: O'Reilly Media, Inc
- Actions on Google, (2019, September). Conversation Design. Retrieved from: https://designguidelines.withgoogle.com/conversation/conversation-design/what-is-conversation-design.html#
- Warden, P., (2019, August 24). Launching the Speech Commands Dataset.
 Retrieved from: https://ai.googleblog.com/2017/08/launching-speech-commands-dataset.html
- Ruhr-Universitaet-Bochum, (2018). *Secret Messages for Alexa and Co.* Retrieved from: https://phys.org/news/2018-09-secret-messages-alexa.html

Module 3

- Wagner, K., (2018). How Restaurants Got So Loud. Retrieved from: https://www.theatlantic.com/technology/archive/2018/11/how-restaurants-got-so-loud/576715/
- Wright, S., (2018). Warning System Might Have Saved Lives in Indonesian Tsunami.
 Retrieved from: https://apnews.com/110eb42c03324a08bff5b3e6b58c309e/Warningsystem-might-have-saved-lives-in-Indonesian-tsunami
- Spanos, G., (2009). Getting Your Sound Into the Game. Retrieved from: http://www.gamesounddesign.com/GettingYourSoundIntoTheGame.html
- Colgan, A., (2017). How Sound Design Can Add Texture To A Virtual World. Retrieved from: https://uploadvr.com/explorations-vr-sound-design/

Suggested Reading

- Brown, R. S., (1994). Overtones and Undertones. Berkley, CA: Berkley Press
- Velasco, C., Balboa, D., Marmolejo-Ramos, F., Spence, C., (2014).
 Crossmodal Effect of Music and Odor on Olfactory Quality Perception. Retrieved from: https://www.frontiersin.org/articles/10.3389/fpsyg.2014.01352/full
- Inglis, S., (2002) *Music and Sound Design for Video Games*. Retrieved from: https://www.soundonsound.com/techniques/music-sound-design-video-games

Required Listening

- To the Best of Our Knowledge, (2019, September). *Listening to the City.* Retrieved from: https://www.ttbook.org/show/listening-city
- Twenty Thousand Hertz, (2018). Sonic Branding.

Retrieved from: https://www.20k.org/episodes/sonicbranding

Twenty Thousand Hertz, (2018). Ultrasonic Tracking.
 Retrieved from: https://www.20k.org/episodes/ultrasonictracking

Additional Resources

Storyboarding Resources

24 Best Storyboard Software of 2020 with Free Templates
 Retrieved from: https://www.studiobinder.com/blog/best-storyboard-software-free-storyboard-templates/

Description and Assessment of Assignments

The below provides a brief overview of assignments throughout the course as they correspond to each module. Additional assignment details will be provided separately. Participation (Individual): Throughout the semester, students will be expected to contribute to class in a variety of ways. They will be asked to: Provide substantive and thoughtful feedback to questions posted, by peers and instructor, in specified online forums. Provide written and verbal responses during live, synchronous sessions. Complete, after the delivery of each Team assignment, individual Peer Feedback Reports.

Assignments

Module 1

1.1 – Active Listening Experiment (Listening vs Hearing)

- Tools:
- A timer. (Stand alone timer, Smart Phone or Computer)
- A recording device. (Stand alone timer, Smart Phone or Computer)
- Instructions:
- Find a comfortable place inside your home where you can remain quiet and still. Set the timer to 3mins.
 - Create a 3 min recording of your environment without, stopping, restarting or editing. As you create the recording, close your eyes and actively listen. Begin by allowing your ears to attend to the myriad sounds in your environment. Before listening back to your recording, create a written log of all the sounds you recall from the experiment: note the sounds themselves, whether they carried a specific prominence, timbre, texture or subjective/object meaning. Next, add a new column to your log, listen back to your recording and any sounds that you may have missed when recalling from memory.

1.2 - Audio/Media Deconstruction Project (Individual) Instructions:

• Deconstruct and Analyze assigned video using the following criteria with respect to the role and impact of audio design:

- Time and Place, Action and Pacing, Character and Story Arc
- Function and Tone, Texture and Dynamics
- Sound Spotting (In-Point Out-Point Timing)
- Texture and Dynamics, Editing Style
- **Deliverable:** Produce a Story Timeline populated with above data. Specific Format guidelines will be covered in class.

Module 2

2.1 - Audio/Product Deconstruction Project (Team)

- Instructions:
- Work in teams to select an existing product that incorporates effective elements of sound design. Begin by analyzing and summarizing what you interpret as the story of both the product and the associated brand in the form of a synopsis. Next create an A/B chart and deconstruct and categorize both the designed sound components and the accidental sound components with respect to the following criteria:
 - Quality and Value
 - Security
 - Precision
 - Power
 - Gender Identification
 - Nostalgia
 - Other
- **Deliverable:** Based on your teams' data: create an analytical report, focusing on the success and failure of the brand to project narrative and image through sound design.

2.2 - Audio Logo Mapping (Individual)

- Instructions:
- As a template for this assignment, create four Coordinate Plane diagrams similar to those found on pp.88-89 of *Designing With Sound*.
- Select four consumer brands whose audio logos resonate with you.
- Listen carefully to each audio logo several times and make your best guess as to where each brand's logo might live on the coordinate plane. (When beginning this exercise, it can be difficult to commit to a certain quadrant. Oftentimes, deduction is your best friend. Try choosing the most obvious "poor' choice, then continue to recalibrate your ear as reason and intuition begin pointing you in the right direction.)

2.3 - Alexa Skills Set Project (Team)

- **Instructions:** Detailed instructions will be covered in class.
- Getting Started with the Alexa Skills Kit:
 Retrieved from: https://developer.amazon.com/en-US/alexa/alexa-skills-kit

Module 3

3.1 - Neighborhood Walking Tour (Team)

Instructions:

- Begin the project as individual team members and narrate a recorded walking tour of your neighborhood. As you narrate, remember the value of using space and prolonged silences in your recording as a means of drawing the listeners ear to your environment and creating a more immersive experience. The goal of the project is to paint an audio landscape of your environment, using sparse narration as support and underscore to the experience: the inverse of the more common multimedia format.
- The team portion will involve stitching together the individual tour segments into a cohesive whole. Technical and artistic instructions on planning, transitions, etc. will be covered in class.

Final Project Podcast Episode (Team)

• Description:

- Your team will model that of a Podcast Production Team responsible for
 producing a weekly Podcast on the theme "Current trends in Product and
 Experiential Sound Design." The goal of the final project is to bring together skills
 and concepts learned during the course and apply them in an organized and
 creative fashion that demonstrates an understanding of Storytelling and
 Messaging through Sound Design. In addition to evaluating technical skills,
 assessment of soft skills, organization and teamwork will rank highly in
 determining the overall success of the project.
- During the project, I will be acting in two contrasting capacities:
 - 1) Program Director for the Podcast station and
 - 2) A professional audio/sound consultant
- Work between Teams and Program Director will involve:
 - a) Creative meetings
 - b) Scheduling of Project Target Dates, Progress Reports, etc.

 (These parameters will be executed on highly compressed schedule)
 - c) A process of audio file submissions and revisions with strict file naming conventions

• Instructions:

- Designate a "Creative Lead' as the primary communicator with the "Podcast Station Program Director" via Google Drive, Dropbox, WeTransfer or other specified online file transfer system.
- Designate a "Technical Lead' as the primary communicator with the "Sound Design Consultant" via Google Drive, Dropbox, WeTransfer or other specified online file transfer system.
- Submit a show topic subject for approval which focuses on a Product Design, Experiential Design, etc.
- Storyboard Show Concept and Layout using Keynote
- Create of Script Outline based on approved subject

• Engage in Conceptual and Development Meetings with Program Director and Sound Design Consultant

• Technical Specifications:

• Technical specifications and Instructions on Deliverables will be covered in class.