

# DIGITAL AUDIO RECORDING ARTS (DARA)

## DARA 101 Digital Audio Recording I (3)

Introduces the basics of audio hardware and signal paths in tandem with the use of digital audio workstations. The course will focus on the production of radio commercials, voice-overs and music to develop and gain engineering and production skills in recording, mixing, editing, and composition.

**Meets general education requirements:** GE-Aesthetic Awareness, GE-Literary/Aesthetic Studies

## DARA 102 Live Sound Recording (2)

Introduces the use of minimal microphone choices, techniques, placements, and live recording equipment including mixers and live mixing to 2 tracks. Also includes multiple track recording with phasing and mixing problems, and editing the mix to the selected end-user media. The emphasis will be on capturing acoustic music and ambient sound recording; students will record a number of concerts during the semester without the use of processing.

## DARA 103 Live Sound Production (2)

Introduces fundamental technologies and equipment used in basic and professional audio systems from a technical and functional perspective. Students will be taught the techniques and tools of sound reinforcement, live audio production, basic and advanced uses of the mixer, and monitor stage mixing for live sound reinforcement. Awareness of audio systems components will be combined with ear training and hands-on practice.

## DARA 201 Digital Audio Recording II (3)

**Prerequisite:** DARA 101

Provides an extensive study of audio equipment hardware, including microphone pre-amps, microphone studies and trials, compressors, equalizers, and analog to digital converters. Students will take an active role in session operations, and will be involved in numerous recording sessions of music and ensembles from the community, with continued emphasis on recording, mixing, editing, and composition.

## DARA 202 MIDI Composition I (2)

**Prerequisite:** DARA 101

Introduces Musical Instrument Digital Interface (MIDI), sequencing language, using audio industry standard software. This course introduces techniques that utilize MIDI recording, routing MIDI channels, quantization, MIDI editing in Step and Score editors, MIDI controllers and combining multiple MIDI sources. Students will create MIDI compositions using these techniques.

## DARA 203 Music Architecture and Structure (3)

**Prerequisite:** DARA 101 or MUSC 191

Develops critical listening skills and perspective in a nonlinear fashion in regards to tonality, harmony, rhythm, form and melodic textures and nuance incorporating music technology hardware and software. This is a necessary skill for all audio professionals. The big picture of what is happening musically is what will be striven for here in this course. This course will cover a wide variety of topics as stated in the syllabus that music professionals from recording artists, studio engineers, sound designers, and live sound operators, work with, analyze and manipulate on a daily basis.

## DARA 204 Acoustics Recording Artist/Audio Engineering (3)

**Prerequisite:** DARA 201 or MUSC 291 and MUSC 392

Covers the study of acoustics, a fundamental skill for all audio specialists. Acoustics covers a wide variety of topics as extensively elaborated in the syllabus that music professionals from recording artists, studio engineers, live sound operators, musicians and sound designers work with and manipulate on a daily basis.

## DARA 205 Digital Audio Recording Arts Original Saints Ensemble (1)

**Prerequisite:** DARA 201

Is a performance ensemble focuses on the development of using technology to create and preform music. The course will focus on communication between computers, DAWs and MIDI controllers on both a technical and expressive level. Student will gain insight and skills in creation and performance of music on instruments amplified or otherwise manipulated via digital audio software. A performance will be presented at the end of the semester.

May be repeated for up to 5 hours

## DARA 206 Controller Techniques (2)

**Prerequisite:** MUSC 302 or MUSC 291 and MUSC 392

Focuses on external controller integration with the DAW in the studio and live performance. Controlling virtual instruments to create beats, chord progressions and melodies will be the musical focus. Manipulating these sounds with sliders, encoders and modulation will be the second phase. Combining multiple musicians using synchronization through as hoc networks to create music together will be the end goal.

## DARA 207 Applied Studio Guitar/Bass (1-2)

Individualized instruction on either acoustic guitar, electric guitar or electric bass with an emphasis on performance technique, style, genres, guitar types, characteristics and especially performance in the studio. There are many directions the individualized student of Guitar/Bass can take as listed in the syllabus. Ultimately, the goal will be for the DARA student to become a more competent performer so as to generate better recordings.

May be repeated for up to 4 hours

**Restrictions:** Enrollment is limited to students with a major in Digital Audio Recording Arts.

## DARA 208 Applied Studio Control/Keyboard (1-2)

A one-on-one study of the basics of midi and the techniques necessary to manipulate and program an array of controllers. Students will gain an in-depth understanding of the shapes of harmonies, melodies and rhythms generated using midi controllers. Students will learn how to program and manipulate many different controllers. In order to promote this understanding, this course will provide an in-depth look at manipulating and programming midi controllers keys, sliders, knobs, pads, foot pedals, expression pedals, modulation wheels, percussion triggers pads and more. Students will learn how to utilize, manipulate and program velocity, attack, sustain, release, decay, envelope, panning, EQ via the use of sliders, faders, knobs and pads.

May be repeated for up to 4 hours

## DARA 209 Applied Studio Vocals (1-2)

Provides individualized instruction to improve techniques and proficiency on voice. In addition, studio recording applications, microphone technique, microphone choices, equalization, auto tune, vocal timing and harmonization may be explored throughout the semester.

May be repeated for up to 4 hours

**DARA 210 Applied Studio Drums/Percussion (1-2)**

An individualized instruction on drum/percussion with an emphasis on performance, technique, style and genres. The end goal is to be able to play various styles for live or studio performances. Students will also be able to care for their own equipment and make professional choices about what they need to be successful. Ultimately, the goal will be for the DARA student to become a more competent performer so as to generate better recordings.

May be repeated for up to 4 hours

**DARA 301 Digital Audio Recording III (3)**

**Prerequisite:** DARA 201 or DARA 203

Provides ear training for recording engineers to develop an understanding of the sonic spectrum. Theory and application of recording particular voices and instruments using various types of microphones will be extensively investigated. Emphasis will be placed on recording, editing, mixing, and automating effects of digital multi track productions; various onsite recording sessions of music and ensembles will be utilized.

**DARA 302 MIDI Composition II (2)**

**Prerequisite:** DARA 202

Provides a continuation of Composing for MIDI I, integrating virtual instruments, rewire techniques, advanced use of processing and sculpting samples, tempo and velocity maps. Students will engage in further exploration of the more elaborate nuances of MIDI triggering architecture and MIDI file management; assessment will be based on MIDI compositions using this architecture.

**DARA 303 Elements of Groove (3)**

**Prerequisite:** DARA 201 and DARA 202 or MUSC 291 and MUSC 292

Focuses on drums, percussion and elements of the groove. Teaching drum performance in the studio with emphasis on performance technique, style, genres, drum types, characteristics, microphone choices, microphone techniques and recording techniques. Several demos, drafts, exercises, listening examples and final recordings will be conducted throughout the semester deconstructing and recreating classic examples. Students will learn how to build solid grooves from the ground up using different types of drums along with programming.

**DARA 304 Genres of Contemporary Music (3)**

**Prerequisite:** DARA 201 and DARA 203 or MUSC 291

Studies the development of modern music. Genres covered in this course include: hip-hop, electronic dance, rock, jazz, country, rap, orchestral, ethnic music and more. Students will explore the differences in chords, rhythms, melodic approaches and instrumentation typical to the genres studied. This course will enable students to identify specific genres, understand the social, political and historical background of each genre and to be knowledgeable on the architecture of each genre's rhythmic patterns, chord structure, timbre and medium. Course work will include active listening, reading, research and music recreation and interpretation.

**DARA 305 Songwriting (3)**

**Prerequisite:** DARA 101

Provides an introduction to the basics of songwriting including the creation of lyrical content, musical progression and song structures. It will also include an analytical approach to songwriting by studying great composers and writers, evaluating and interpreting song lyrics, and exploring the relationship between form and content.

**DARA 306 Max for Ableton Live (3)**

**Prerequisite:** DARA 302 or MUSC 291 and MUSC 392

Introduces the theory and practice of algorithm, electronic sound syntheses and signal processing using Max for Ableton Live. Graphic programming languages taught during this course are intended to provide experience in applications of computer logic, external controller integration and a practical understanding of the fundamental techniques used in digital signal processing (DSP). In addition, this course will offer many real world examples of the use of computer music synthesis in academic and popular music as well as the music technology industry. Topics include audio software development, simple interactive systems and custom audio plug-ins.

**DARA 307 Vocals in the Studio (2)**

**Prerequisite:** DARA 101 or MUSC 191

Focuses on vocal performance in the studio with emphasis on technique, style, intended audience, performance integrity and authenticity. Students will explore professional approaches to "session singing" in different genres and for different purposes. Students will also record several demos, drafts and final recordings of work pieces throughout the duration of the course.

**DARA 308 Strings, Brass and Woodwind Studio (2)**

**Prerequisite:** DARA 302 or MUSC 291 and MUSC 392

Understanding specific idiosyncrasies of the instruments themselves such as techniques, styles, tones and range. The best microphone choice and placement for capturing the best tones while recording. Replicating acoustic instruments with virtual instruments. Also, studying, arranging and composing techniques for these instruments.

**DARA 309 Guitars in the Studio (2)**

**Prerequisite:** DARA 201 or MUSC 291

Focuses on acoustic guitar, electric guitar and electric bass performance in the studio with emphasis on performance technique, style, genres, guitar types, characteristics, microphone choices, microphone techniques and recording techniques. Several demos, drafts, exercises, listening examples and final recordings will be conducted throughout the semester deconstructing and recreating classic examples. Students will learn how to build solid rhythm tracks using layering, doubling parts, combinations and the kick-bass relationship. Sound enhancement using plug-in simulators and re-amping will be studied. Tricks of the trade will be shared such as no long cable runs, stretching new strings, alternate tuning, hi strung guitar and use of the capo. Preparing music charts for the studio using the Nashville number system and chart nomenclature. Amplifiers and speaker cabinets will be discussed including a basic understanding of ohm, watts and cabling.

**DARA 310 Music for Gaming (2)**

**Prerequisite:** DARA 302 or MUSC 291 and MUSC 392

Explores the application of non-linear composition techniques in the production of dramatic music for use in interactive games. Students will learn techniques of composing music that will ultimately be controlled through game plan and game audio engines. The class will explore building scores that involve multilevel dramatic elements and instantaneous transitions as is common in most interactive games. Students will develop skills to program their music into game engines.

**DARA 320 User Generated Content 1 (3)**

Introduces students to the beginning process of importing and editing content captured on accessible audio/video components. A primary focus in UGC 1, will be the audio aspect of user generated content. Using audio industry standard software, students will learn about capturing quality audio and the editing process. Additionally, students will learn the basics of script writing, choosing affordable equipment, and some lighting techniques. UGC 1 will focus on generating content for media platforms such as: YouTube, Vimeo, website population, audiobooks, podcasting, and more.

**DARA 321 User Generated Content 2 (3)**

**Prerequisite:** DARA 320

Builds upon students' knowledge of content covered in UGC 1. UGC 2 begins to delve deeper into the audio capturing and editing process, as well as beginning to instruct students on more specific lighting and audio approaches. Students will create more advanced media projects and be held to an even higher standard of audio clarity. Additionally, students will practice recreating certain media "looks" and shots. UGS 2 will focus using affordable equipment to generating quality content for media platforms such as YouTube, Vimeo, webpage population, audiobooks podcasts and more.

**DARA 322 Storyboard and Script-Write for UGC (3)**

**Prerequisite:** DARA 320

Provides the fundamental building blocks for script-writing and storyboarding in the area of audio and video-based content creation with particular regard to media meant for streaming and downloading; this includes blog style videos, instructional content, promotional and marketing content, educational content and personal content. Along with instruction in the area of creating quality content, we will touch on several aspects of using the internet as an outlet for this type of content, including the use of different hosting and social media outlets, how to create playlists for videos, audio books and blogs or "vlogs," and an introduction to the realm of gathering affiliates, product placement, advertising and other means of gaining revenue with said content.

**DARA 401 Digital Audio Recording IV (3)**

**Prerequisite:** DARA 301 or DARA 201

Emphasizes communication skills grounded in practical musical experience, participation as engineer and producer on various projects, and interacting effectively with musicians. Students will gain experience in acoustical modeling, interfacing with MIDI and virtual instruments, tempo maps, surround sound production, and data compression. Mastering digital audio—preparing final audio mix for a media release—will be examined.

**DARA 402 Audio For Film (2)**

**Prerequisite:** DARA 302 or DARA 201

Provides a foundation in the utilization of digital audio workstations for video and film post-production. Students will learn to create sound tracks for TV, film, and multi-media productions, and how to synchronize video with time code. The course also provides foundations and techniques required in the creation and the manipulation of dialogue, music, and sound effects along with the methodology of the track building process.

**DARA 403 Troubleshoot/St Etiquette/Auditory File Management (2)**

**Prerequisite:** DARA 301

Provides students with methods to identify, limit, and cope with digital failure and minimize damage. Students will learn to protect files and safely manage, document, store and back them up. Students will also learn how to effectively collaborate with different artists in bringing their vision to life through creative problem-solving and by learning the psychology of recording sessions.

**DARA 420 User Generated Content Practicum (3)**

**Prerequisite:** DARA 321

The culmination of students' UGC portfolio build process. Students will create their individual user channel, as well as a channel where the best of USF UGC media content will reside.

**DARA 494 Topics in Digital Audio Recording Arts (0-4)**

Is a title given to a course which covers specific themes, practices, and subject content not currently offered in the curriculum. This course is directed primarily to student majoring in the subject area and could be used to complete major requirements. The course will provide an in-depth study of a specific topic.

May be repeated for up to 3 hours

**DARA 495 DARA Directed Study (1-3)**

An academic experience designed by the instructor

**DARA 498 DARA Internship (0-3)**

Provides a supervised, practical experience for an extended period of time for advanced students.