

# MUTK-MUSIC TECHNOLOGY

## **MUTK 4113 Understanding Electroacoustic Music 3 Credit Hours**

Prerequisite: sophomore, junior or senior standing. Designed to explore the genre of electroacoustic music, primarily through listening, reading and in-class conversations. (Irreg.) [IV-AF].

## **MUTK 4133 Introduction to Digital Signal Processing 3 Credit Hours**

Prerequisite: sophomore, junior, or senior standing. Introduction to the theory of digital audio and various digital signal processing applications. (Irreg.)

## **MUTK 4143 Advanced Digital Signal Processing 3 Credit Hours**

Prerequisite: 4133. Advanced methods and theories of digital audio and digital signal processing applications. (Irreg.)

## **MUTK 4163 Real Time MIDI Control 3 Credit Hours**

Prerequisite: 4133 and sophomore, junior, or senior standing. An introduction to the real-time MIDI control and various MIDI processing applications through reading, listening, and composing. (Irreg.)

## **MUTK 4173 Recording Techniques 3 Credit Hours**

Prerequisite: 4183 and junior or senior standing. Provides an understanding to the fundamentals of recording techniques and studio procedures. (Irreg.)

## **MUTK 4183 Sound Design 3 Credit Hours**

Prerequisite: sophomore, junior, or senior standing. A course designed to expand ones knowledge of MIDI sequencing, software-hardware synthesizers, and digital audio editing. (Irreg.)

## **MUTK 4960 Directed Readings 1-4 Credit Hours**

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

## **MUTK 4970 Undergraduate Seminar 1-3 Credit Hours**

Prerequisite: sophomore standing. 1 to 3 hours. May be repeated with change with change of content; maximum credit nine hours. In depth look at advanced topics of various fields of electroacoustic music. (Irreg.)

## **MUTK 4990 Independent Study 1-3 Credit Hours**

1 to 3 hours. Prerequisite: Senior standing and permission of instructor. May be repeated; maximum credit nine hours. Contracted independent study for a topic not currently offered in regularly scheduled courses. Independent study may include library and/or laboratory research and field projects. (Irreg.)

## **MUTK 5113 Electroacoustic Music Literature 3 Credit Hours**

Prerequisite: Graduate standing and departmental permission. This is a seminar course on electroacoustic music techniques, history, aesthetics, and literature. The aim of the course is to improve our role as active listeners by observing the ways we listen to music, speculate on the role of technology in creating new music, consider the aesthetic intentions of seminal experimental composers, and analyze their compositions. (Irreg.)

## **MUTK 5133 Introduction to Digital Signal Processing 3 Credit Hours**

Prerequisite: Graduate standing and departmental permission. Students will be familiarized with the theory of Digital Audio and various Digital Signal Processing applications. Cycling74's Max, an object-oriented programming environment for music applications, known for its real-time audio functions, will be the preferred software for the term. Students will complete weekly creative & programming assignments. An original creative project will be required at the end of the semester. (Irreg.)

## **MUTK 5143 Advanced Digital Signal Processing 3 Credit Hours**

Prerequisite: Graduate standing and departmental permission. Students will expand their knowledge and understanding of the theory and music applications of Digital Signal Processing through reading and programming in Cycling74's Max. Students will demonstrate their understanding of the topics discussed in class through weekly creative assignments and presentations. An original music composition will be presented at the end of the semester. (Irreg.)

## **MUTK 5153 Interactive Performance Techniques 3 Credit Hours**

Prerequisite: Graduate standing and departmental permission. Students will expand their knowledge and practice of the techniques used in composition of live electronics and interactive performance, through weekly readings, listening and analyzing interactive music, and completing programming assignments in Cycling74 Max. An original creative project such as a composition for a solo performer and computer interaction will be required. (Irreg.)

## **MUTK 5163 Real Time MIDI Control 3 Credit Hours**

Prerequisite: Graduate standing and departmental permission. Students will study in depth advanced techniques of Real time MIDI control in Cycling74's Max programming environment, through readings, listening, analysis of related compositions, completing weekly programming assignments, and composing an improvisation environment that they will demonstrate as a group. (Irreg.)

## **MUTK 5173 Recording Techniques 3 Credit Hours**

Prerequisite: Graduate standing and departmental permission. This course aims to familiarize students with specialized recording techniques and studio procedures. This is a hands-on class with emphasis on acquiring skills via intensive practice. The students will be required to demonstrate their understanding of the materials through the successful completion of creative assignments using the recording music studio software-hardware. (Irreg.)

## **MUTK 5183 Sound Design 3 Credit Hours**

Prerequisite: Graduate standing and departmental permission. Sound Design is a hands-on graduate class with emphasis on creative practice of sound manipulation. It aims to offer to the students an in-depth examination of specialized techniques divided in two major areas of interest: MIDI Sequencing and Digital Audio Editing. Students will demonstrate their understanding of the materials through the composition of creative assignments using the MIDI lab software-hardware. (Irreg.)

## **MUTK 5193 Seminar in Electroacoustic Music 3 Credit Hours**

Prerequisite: Graduate standing and departmental permission. The goal of the course is to extend and deepen the students' knowledge of electroacoustic music through its contemporary discourse, such as aesthetics, analytical systems, notation, terminology, genres & categories, recent repertory, and technical fields, such as DSP, DVP, Sensors/ Actuators, etc. The students and instructor will decide the list of topics for study in according to their creative interests. (Irreg.)