# MUSIC 258A: Sound and Music Computing with CNMAT Technologies

New course	Review Date:

### **General Course Info**

Course Number MUSIC 258A

Department Music

Course Title Sound and Music Computing with CNMAT Technologies

Course Level Graduate

Abbreviated Transcript Title MUSIC AND COMPUTING

Instructor(s)

Effective Start Term Fall 2015

### Academic Content

Description Explores the intersection of music and computers using a combination

of scientific, technological, and artistic methodologies. Musical concerns within a computational frame are addressed through the acquisition of basic programming skills for the creation and control of digital sound. Will learn core concepts and techniques of computer-based music composition using the Cycling75/MaxMSP programming environment in combination with associated software tools and programming approaches created by the Center for New Music and Audio Technologies. Included will be exposure to the essentials of digital audio signal processing, musical acoustics and psychoacoustics, sound analysis and synthesis. The course is hands-on & taught from

the computer lab.

Course Objectives

Student Learning Outcomes

## Credit

Unit(s) **4.0** unit(s)

Credit Letter Grade

Final Exam Room not required during final exam period

#### **Formats**

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Format LECTURE

Term, Duration, & Hours #1: 15 wks, f

LEC: 3hrs WRK: 9hrs

TOTAL: 12 hour(s) (OK)

**#2: 6 wks, su** LEC: 7.5hrs WRK: 22.5hrs

TOTAL: 30 hour(s) (OK)

formats, additional activities

TIE Code LECT

# **Prerequisites**

Prerequisite Phrase Limited to graduate students in Music

Prerequisites

## Restrictions

Credit Restrictions

Deficient Grade Removal

Repeat Rules Not repeatable

Special Topics Course No

## Finishing Up

Files Attached Music 258A Course Syllabus

Remarks In an effort to meet the large and growing interest in music and

technology courses, the Department of Music, Professor Edmund Campion, and the Center for New Music and Audio Technologies (CNMAT) have designed a more complete and integrated music technology curriculum. The goal is to phase in a series of new courses that will better serve both music majors and minors, as well as majors from diverse departments including TDPS and EECS. To support this initiative, Professor Campion has received a \$50,000 grant from the

UC Berkeley Mellon Digital Humanities Project.

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### **Catalog Preview:**

**258A.** Music - Sound and Music Computing with CNMAT Technologies. (4.0) Three hours of lecture per week. *Prerequisites: Limited to graduate students in Music*. Explores the intersection of music and computers using a combination of scientific, technological, and artistic methodologies. Musical concerns within a computational frame are addressed through the acquisition of basic programming skills for the creation and control of digital sound. Will learn core concepts and techniques of computer-based music composition using the Cycling75/MaxMSP programming environment in combination with associated software tools and programming approaches created by the Center for New Music and Audio Technologies. Included will be exposure to the essentials of digital audio signal processing, musical acoustics and psychoacoustics, sound analysis and synthesis. The course is hands-on & taught from the computer lab. .

#### **Comments:**

[03/11/2015 12:57PM] **Babs WINBIGLER** Submitted this proposal

[03/10/2015 02:08PM] **Babs WINBIGLER** Created this proposal