MUSIC (MUSI)

MUSI 6001. Music Perception and Cognition. 3 Credit Hours.
This course examines how humans process musical sound, including
topics such as the auditory system, psychacoustics, music cognition, and
psychology.

MUSI 6002. Computer Supported Interactive Music. 3 Credit Hours.
Theoretical and practical issues in computer supported interactive music.
The course involves readings, class discussions, student presentations,
and the design of a final project.

MUSI 6003. Music Technology History and Repertoire. 3 Credit Hours.
Overview of the history, aesthetics, and technology of electronic and
computer music over the past century through selected readings, musical
analysis, and individual research projects.

MUSI 6004. Technology Ensemble. 3 Credit Hours.
Practice and performance of original and repertoire works in live audio
settings using commercial and propriety technology.

MUSI 6005. Music Ensemble for Graduate Students. 1 Credit Hour.
The graduate level of any music ensemble.

MUSI 6103. Music Recording and Mixing. 3 Credit Hours.
Overview of concepts, techniques, hardware, and software used in audio
production as well as aesthetic concerns and considerations.

MUSI 6104. Integrating Music into Multimedia. 3 Credit Hours.
To familiarize students with the tools and techniques for effectively
utilizing music and audio in the context of digital multimedia and the
internet.

MUSI 6105. Digital Media Production and Mastering. 3 Credit Hours.
Tools and techniques for effectively mastering, optimizing, finalizing,
and producing digital media for multimedia and the Internet.

MUSI 6201. Computational Music and Audio Analysis. 3 Credit Hours.
Research in music, as well as music production and composition
increasingly relies on sophisticated digital signal processing techniques.
This course will review fundamental elements of digital audio signal
processing, such as sinusoids, spectra, digital filters, and Fourier analysis
and their application to the fundamental music analysis problems
of modeling and synthesis. The course will focus particularly on the
algorithmic implementation sound transformation and synthesis
techniques through intensive programming assignments in Matlab and
CSound.

MUSI 6203. Project Studio in Music Technology. 3 Credit Hours.
Discussion, design and development of computer music applications and
performance controllers.

MUSI 6301. Music Interface Design. 3 Credit Hours.
Theory and practice of designing and prototyping new forms of music
interfaces including percussion, haptic, and augmented traditional
constructs.

MUSI 6302. The Musical Mind. 3 Credit Hours.
This course teaches the science of music, nature of music, perception
of music, analysis of musical talent, development of musical skills, and
approaches to musical esthetics.

MUSI 6303. Network Music. 3 Credit Hours.
Exploration of distributed music systems over local-area networks and
Internet, including discussion of existing technologies, works, literature,
and hands-on experimentation with tools and techniques.

MUSI 6304. Computer Music Composition. 3 Credit Hours.

MUSI 7000. Master’s Thesis. 1-21 Credit Hours.
Advisor guided thesis writing.

MUSI 7100. Music Technology Research Laboratory. 1-21 Credit Hours.
Advisor guided research and creative work in music technology.
Investigation of novel technological and artistic concepts. Design and
develop new hardware, software, and musical artifacts.

MUSI 7998. Preparation for Qualifying Paper. 1-21 Credit Hours.
Preparation of qualifying paper for Ph.D. in Music Technology.

MUSI 7999. Preparation for Qualifying Examination. 1-21 Credit Hours.
Preparation for qualifying examinations for Ph.D. in Music Technology.

MUSI 8001. Research Methods. 3 Credit Hours.
Theoretical and practical issues in music technology research including
design patterns, data sets, quantitative and qualitative evaluation
standards, proper citation, and print and oral presentation.

MUSI 8002. Apprentice Teaching. 3 Credit Hours.
Pedagogical approaches to music technology, focusing on hands-on
teaching experience.

MUSI 8801. Special Topics. 1 Credit Hour.
Topics of current interest.

MUSI 8802. Special Topics. 2 Credit Hours.
Topics of current interest.

MUSI 8803. Special Topics. 3 Credit Hours.
Topics of current interest.

MUSI 8804. Special Topics. 4 Credit Hours.
Topics of current interest.

MUSI 8805. Special Topics. 5 Credit Hours.
Topics of current interest.

MUSI 8901. Special Problems. 1-21 Credit Hours.
Individualized study with an advisor.

MUSI 8902. Special Problems. 1-21 Credit Hours.
Individualized study with an advisor.

MUSI 8903. Special Problems. 1-21 Credit Hours.
Individualized study with an advisor.

MUSI 9000. Doctoral Thesis. 1-21 Credit Hours.