

# M.S. IN MUSIC ENGINEERING TECHNOLOGY

## Overview

Since 1975, the Music Engineering Technology program at the University of Miami Frost School of Music has pioneered education in music and technology, setting the standard by which the National Association of Schools of Music (NASM) accredits other such programs around the United States. Alumni of the program have contributed significantly to the music and audio industries and upon graduation pursue careers ranging from recording engineer to software designer.

The Music Engineering Technology program offers a two-year Master of Science graduate degree for students who have completed an undergraduate degree in electrical engineering or computer science. These students study the software and hardware design of audio systems and perform independent research that culminates in a thesis project. Upon graduation, these students are widely placed in top corporations that span the audio industry. For more information, please visit the website for the Music Engineering program (<https://musicengineering.frost.miami.edu/>).

## Admission Requirements

All applicants to the Frost School must submit the following items:

- An online application
- Application fee
- Resume
- Three letters of recommendation
- Official transcripts from every post-secondary school attended

A Bachelor of Science or STEM related major, such as music technology, electrical engineering, computer science, or related fields is preferred. Other degrees and majors will also be considered, based on faculty evaluation of the portfolio and college transcripts.

This graduate degree program also requires submission of certain supplemental materials, including:

- Portfolio
- TOEFL/IELTS score, as applicable

For more detailed information, please visit our Graduate Admission website (<https://admissions.frost.miami.edu/graduate/>).

## Curriculum Requirements

Code	Title	Credit Hours
<b>Major Area</b>		
MMI 705	Current Trends in Music Engineering I	3
MMI 603 or MMI 604	Audio Signal Processing II Audio Signal Processing III	3
MMI 610	Computational Psychoacoustics	3
MMI 6XX/7XX	Advisor-approved course in music engineering	3
Graduate Level Electives in Music		6
MUS 700	Graduate Forum	0
<b>Electives</b>		
Select 9 credit hours of graduate level courses in electrical/computer engineering, computer science, and/or music engineering		9
<b>Final Project</b>		
MMI 813	Master's Research Project	3
<b>Total Credit Hours</b>		<b>30</b>

## Sample Plan of Study

Year One		Credit Hours
Fall		
MUS 700	Graduate Forum	0
MMI 705	Current Trends in Music Engineering I	3

MMI 604	Audio Signal Processing III (or ECE, CS, MMI, or Music 6xx/7xx Elective)	3
ECE, CS, MMI, or Music 6xx/7xx Elective		3
<b>Credit Hours</b>		<b>9</b>
<b>Spring</b>		
MUS 700	Graduate Forum	0
MMI 603	Audio Signal Processing II (or ECE, CS, MMI, or Music 6xx/7xx Elective)	3
ECE, CS, MMI, or Music 6xx/7xx Elective		3
MMI 610	Computational Psychoacoustics (or ECE, CS, MMI, or Music 6xx/7xx Elective)	3
<b>Credit Hours</b>		<b>9</b>
<b>Year Two</b>		
<b>Fall</b>		
MUS 700	Graduate Forum	0
MMI 813	Master's Research Project	1
ECE, CS, MMI, or Music 6xx/7xx Elective		3
ECE, CS, MMI, or Music 6xx/7xx Elective		3
<b>Credit Hours</b>		<b>7</b>
<b>Spring</b>		
MUS 700	Graduate Forum	0
MMI 813	Master's Research Project	2
MMI 610	Computational Psychoacoustics (or ECE, CS, MMI, or Music 6xx/7xx Elective)	3
<b>Credit Hours</b>		<b>5</b>
<b>Total Credit Hours</b>		<b>30</b>

\* This is a suggested Plan of Study. Your actual course sequence may vary depending on your previous academic experience as well as current course offerings. Students should meet with their academic advisor each semester to determine the appropriate course selection.

## Mission

The mission of the Music Engineering Technology program is to:

- Provide the highest quality education in the field of music engineering technology
- Promote advancements in the fidelity and creativity of music recording, production, and reproduction
- Promote advancements in the invention, design, and implementation of audio hardware and software.

## Goals

The goals of the MS Music Engineering Technology program are to:

- Engage experiential and novel teaching modalities that lead to rapid student acquisition of elite technical skills that qualify them for cutting-edge positions in the audio industry;
- Prepare students for potential placement in PhD programs in Music Technology, Computer Science, Electrical Engineering, Digital Informatics, or Media Engineering;
- Ensure that curricular offerings are current and able to educate students in new and future theory and practice; and
- Place graduates into professional career positions.

## Student Learning Outcomes

- Students will demonstrate advanced problem solving skills to find a solution to an engineering research problem.
- Students will demonstrate fundamental understanding of software engineering concepts and applications as applied to music engineering problems.
- Students will demonstrate advanced understanding of electrical and computer engineering concepts and applications to audio analysis and signal processing.