B.S. IN AUDIO TECHNOLOGY

Overview

The Bachelor of Science in Audio Technology program offers a comprehensive and interdisciplinary education for students passionate about the technical aspects of digital audio, sound engineering, audio processing, and related fields. This program is designed to prepare students for successful careers in the audio industry, combining a strong foundation in audio technology with coursework in music and STEM disciplines. These include coursework in transducer theory, digital audio theory, electronics, computer programming, and practical audio applications. Finally, the program's internship and capstone project in the final semester offer practical industry experience.

- This degree program does not require an audition or demonstrated competency in musical performance.
- This degree program requires students complete either a Computer Engineering (CE) or Electrical Engineering (EE) minor.

Bachelor of Science in Audio Technology with a Minor in Computer Engineering

Code	Title	Credit Hours
General Education Requirements		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
WRS 106	First-Year Writing II	3
or ENG 106	Writing About Literature and Culture	
or WRS 107	First-Year Writing II: STEM	
Quantitative Skills:		
MTH 161	Calculus I	4
UMX 100	The University of Miami Experience	0
Areas of Knowledge:		
Arts and Humanities Cognate (9 credits) (fulfilled through the major)		
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the required minor)		
Required Music Courses		
MCY 140	Experiencing Music	3
MUE 460	Recital Recording and Sound Reinforcement (Recording Services) [1]	4
Musicology Elective (200+) (AWC)		3
Practicum		9
Choose 1 from the following list:		
MUE 465	Internship in Music Engineering	
Any MUE course or advisor approved elective		
Music Electives [2]		12
Required Music Engineering Courses		
MUE 13	Music Engineering Forum	6
MUE 220	Introduction to Music Recording	3
MUE 160	Audio Recording Workshop	3
MUE 161	Audio Mixing Workshop	3
MUE 251	Electronic Production Techniques	3
MUE 401	Audio Electronics	3
MUE 436	Audio for Visual and Interactive Media	3
MUE 501	Transducer Theory	3
MUE 502	Digital Audio Theory	3
MUE 503	Audio Software Development I	3
MUE 410	Music Engineering Capstone Project	3
Choose 2 from the following:		6
MUE 361	Acoustics	
or MUE 504	Audio Software Development II	
or MUE 505	Current Trends in Music Engineering I	

or MUE 506	Current Trends in Music Engineering II	
or MUE 508	Current Trends in Music Engineering III	
or MUE 511	Current Trends in Music Engineering IV	
or MUE 510	Computational Psychoacoustics	
Additional STEM required courses		
PHY 221	University Physics I	3
MTH 162	Calculus II	4
ECE 201	Electrical Circuit Theory	3
ECE 203	Electrical Circuits Laboratory	1
Required Minor in Computer Engineering		
ECE 118	Introduction to Programming	3
ECE 211	Logic Design	3
ECE 212	Processors: Hardware, Software, and Interfacing	3
ECE 218	Data Structures	3
Approved ECE Electives		6
Total Credit Hours		**121**

Bachelor of Science in Audio Technology with a Minor in Electrical Engineering

Code	Title	Credit Hours
General Education Requirements		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
WRS 106	First-Year Writing II	3
or ENG 106	Writing About Literature and Culture	
or WRS 107	First-Year Writing II: STEM	
Quantitative Skills:		
MTH 161	Calculus I	4
UMX 100	The University of Miami Experience	0
Areas of Knowledge:		
Arts & Humanities Cognate (9 credits) (fulfilled through the major)		
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the required minor)		
Required Music Courses		
MCY 140	Experiencing Music	3
MUE 460	Recital Recording and Sound Reinforcement (Recording Services) [1]	4
Musicology Elective (200+) (AWC)		3
Practicum		9
Choose 1 from the following list:		
MUE 465	Internship in Music Engineering	
Any MMI course or advisor approved elective		
Music Electives [2]		12
Required Music Engineering Courses		
MUE 13	Music Engineering Forum	6
MUE 220	Introduction to Music Recording	3
MUE 160	Audio Recording Workshop	3
MUE 161	Audio Mixing Workshop	3
MUE 251	Electronic Production Techniques	3
MUE 401	Audio Electronics	3
MUE 436	Audio for Visual and Interactive Media	3
MUE 501	Transducer Theory	3
MUE 502	Digital Audio Theory	3

MUE 503	Audio Software Development I	3
MUE 410	Music Engineering Capstone Project	3
Choose 2 from the following:		6
MUE 361	Acoustics	
or MUE 504	Audio Software Development II	
or MUE 505	Current Trends in Music Engineering I	
or MUE 506	Current Trends in Music Engineering II	
or MUE 508	Current Trends in Music Engineering III	
or MUE 510	Computational Psychoacoustics	
or MUE 511	Current Trends in Music Engineering IV	
or MUE 521	Timbral Ear Training	
Additional STEM required courses		
PHY 221	University Physics I	3
MTH 162	Calculus II	4
ECE 118	Introduction to Programming	3
ECE 218	Data Structures	3
Required Minor in Electrical Engineering		
ECE 201	Electrical Circuit Theory	3
ECE 202	Electronics I	3
ECE 203	Electrical Circuits Laboratory	1
Approved ECE Electives		9
Total Credit Hours		**121**

1 This degree requires four (4) semesters of MUE 460 Recital Recording and Sound Reinforcement (Recording Services). These may not be taken the same semester as MUE 465 Internship in Music Engineering or other practicum courses.

2 While not required for the degree, students may choose to use these electives toward a minor in music.

Sample Plan of Study

Freshman Year		
Fall		**Credit Hours**
MUE 13	Music Engineering Forum	1
MCY 140	Experiencing Music	3
MUE 220	Introduction to Music Recording	3
WRS 105	First-Year Writing I	3
MTH 161	Calculus I	4
UMX 100	The University of Miami Experience	0
MUE 460	Recital Recording and Sound Reinforcement (Recording Services)	1
	Credit Hours	**15**
Spring		
MUE 13	Music Engineering Forum	1
MUE 460	Recital Recording and Sound Reinforcement (Recording Services)	1
Music Elective		3
WRS 106	First-Year Writing II	3
MUE 251	Electronic Production Techniques	3
MTH 162	Calculus II	4
	Credit Hours	**15**
Sophomore Year		
Fall		
MUE 13	Music Engineering Forum	1
MUE 160	Audio Recording Workshop	3
ECE 201	Electrical Circuit Theory	3
ECE 118	Introduction to Programming	3

MUE 460	Recital Recording and Sound Reinforcement (Recording Services)	1
Music Elective		3
People and Society Cognate		3
	Credit Hours	**17**
Spring		
MUE 13	Music Engineering Forum	1
MUE 161	Audio Mixing Workshop	3
PHY 221	University Physics I	3
ECE 203	Electrical Circuits Laboratory	1
ECE 218	Data Structures	3
MUE 460	Recital Recording and Sound Reinforcement (Recording Services)	1
Music Elective		3
	Credit Hours	**15**
Junior Year		
Fall		
MUE 13	Music Engineering Forum	1
MUE 401	Audio Electronics	3
MUE 502	Digital Audio Theory	3
ECE 202 or 211	Electronics I or Logic Design	3
People and Society Cognate		3
Music Elective		3
	Credit Hours	**16**
Spring		
MUE 13	Music Engineering Forum	1
MUE 501	Transducer Theory	3
MUE 436	Audio for Visual and Interactive Media	3
MUE 503	Audio Software Development I	3
MCY XXX	Musicology Elective (200+) (AWC)	3
ECE 212	Processors: Hardware, Software, and Interfacing	3
	Credit Hours	**16**
Senior Year		
Fall		
Advanced Music Engineering Elective		3
Advanced Music Engineering Elective		3
ECE Minor Elective		3
ECE Minor Elective		3
People and Society Cognate		3
	Credit Hours	**15**
Spring		
MUE 465	Internship in Music Engineering	9
MUE 410	Music Engineering Capstone Project	3
	Credit Hours	**12**
	Total Credit Hours	**121**

Mission

The mission of the program is to provide students with a world-class education in audio technology, fostering a deep understanding of sound engineering principles, music production, digital audio signal processing, and relevant STEM fields. We are committed to equipping graduates with the knowledge, skills, and hands-on experience necessary for success in the evolving audio and music technology landscape through the following program goals.

1. *Technical Excellence*: To educate students in the principles of audio technology, including transducers, signal processing, digital audio theory, and acoustics, enabling them to excel in the technical aspects of the audio industry.

2. *Interdisciplinary Learning:* To promote interdisciplinary collaboration by offering coursework in music, engineering, and related fields, allowing students to gain a broad skill set and adapt to diverse industry needs.
3. *Real-World Experience*: To provide opportunities for practical application of knowledge through internships, capstone projects, and industry engagement, ensuring students are prepared for the demands of the professional audio world.
4. *Critical Thinking and Problem-Solving*: To cultivate critical thinking skills and the ability to solve complex technical challenges, empowering graduates to innovate and adapt to emerging audio technologies.

Student Learning Outcomes

Upon completion of the program, students will achieve the following learning outcomes:

1. *Technical Proficiency*: Students will demonstrate proficiency in audio technology, including sound capture and reproduction, digital audio theory and signal processing, and music production and post-production techniques.
2. *Interdisciplinary Collaboration*: Students will exhibit the ability to work collaboratively across disciplines, effectively integrating music, engineering, and related knowledge into audio projects.
3. *Practical Application*: Students will apply theoretical knowledge through industry internships, capstone projects, and hands-on experience, showcasing competence in real-world audio settings.
4. *Critical Thinking*: Students will employ critical thinking and problem-solving skills to analyze and address complex audio engineering challenges.
5. *Innovation and Adaptation*: Students will demonstrate adaptability and innovation, staying current with evolving audio technologies and contributing to industry advancements.
6. *Effective Communication*: Students will communicate technical concepts clearly and professionally, facilitating collaboration with peers and industry professionals.

Our mission, goals, and student learning outcomes reflect this commitment to excellence and the preparation of well-rounded professionals in the field of audio technology.