



9167
MUSIC THEORY FOR
SOUND ENGINEERING (11A)

30S/30E/30M

A Sound Engineering Course

9167: MUSIC THEORY FOR SOUND ENGINEERING (11A) 30S/30E/30M

Course Description

Students will learn the audio and music theory required to perform the functions of a sound engineer. Topics include acoustics, frequency, pitch, psychoacoustic phenomena, Fletcher-Munson curves, intervals, and rhythms, etc. Students will incorporate the music theory into an original composition and participate in an entry-level live performance.

Goal 1: Describe and apply appropriate **health and safety** practices.

GLO 1.1: Describe and apply appropriate **health and safety** practices.

- SLO 11A.1.1.1 Create and maintain a safe and organized working environment.
- SLO 11A.1.1.2 Give examples of workplace safety and health hazards related to sound engineering.
- SLO 11A.1.1.3 Discuss sound pressure levels and their relationships to hearing loss.
- SLO 11A.1.1.4 Use hearing protection as required.
- SLO 11A.1.1.5 Demonstrate proper selection and use of a variety of personal protective equipment (PPE).
- SLO 11A.1.1.6 Outline the safety principles for working on and around electrical and sound equipment.
- SLO 11A.1.1.7 Outline workplace fire safety principles.

Goal 2: Demonstrate an understanding of **audio theory** and **music theory**.

GLO 2.1: Demonstrate an understanding of **audio theory**.

- SLO 11A.2.1.1 Demonstrate an understanding of sound as it relates to music theory.
 - SLO 11A.2.1.2 Demonstrate an understanding of the principles of acoustics.
 - SLO 11A.2.1.3 Describe how the theory behind frequency and pitch relates to music theory.
 - SLO 11A.2.1.4 Demonstrate psychoacoustic phenomena by using musical instruments and/or sound equipment, and/or the human voice.
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GLO 2.2: Demonstrate an understanding of **music theory**.

- SLO 11A.2.2.1 Compose a song.
 - SLO 11A.2.2.2 Identify intermediate intervals and rhythms by ear.
 - SLO 11A.2.2.3 Demonstrate an understanding of intermediate notation.
 - SLO 11A.2.2.4 Utilize the typical components of a song to create an original composition.
 - SLO 11A.2.2.5 Play, read, and sing intermediate music notation.
 - SLO 11A.2.2.6 Relate modal theory.
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Goal 3: Communicate by **making music**.

GLO 3.1: Communicate by **making music**.

- SLO 11A.3.1.1 Play from memory a repertoire of chords on a musical instrument.
 - SLO 11A.3.1.2 Play/read/sing intermediate chord notation.
 - SLO 11A.3.1.3 Develop a repertoire of chords for piano/guitar.
 - SLO 11A.3.1.4 Play/sing a 12-bar blues in four keys and rhythm base in one key.
 - SLO 11A.3.1.5 Identify root position chords by ear.
 - SLO 11A.3.1.6 Play rhythms up to an eighth note.
 - SLO 11A.3.1.7 Sing intervals.
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GLO 3.2: Participate in a **musical performance**.

- SLO 11A.3.2.1 Demonstrate the skills required to participate in an entry-level live performance.
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Goal 4: Engineer studio sessions and live performances.

GLO 4.1: Demonstrate the identification, selection, and management of **musical instruments** and **recording equipment**.

- SLO 11A.4.1.1 Identify, select, and manage musical instruments and recording equipment.
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GLO 4.2: Perform **pre-production** sound engineering duties.

- SLO 11A.4.2.1 Incorporate the principles of audio theory in the pre-production sound engineering duties for a studio production and live performance.
- SLO 11A.4.2.2 Incorporate the principles of audio theory in the preparation of a session in a recording studio.

SLO 11A.4.2.3 Incorporate the principles of audio theory in the performance of a sound check.

GLO 4.3: Demonstrate **blocking** a live performance.

No applicable SLOs.

GLO 4.4: Engineer studio sessions and live performances.

SLO 11A.4.4.1 Incorporate the principles of audio theory and music theory in the engineering of a studio production and a live performance.

GLO 4.5: Perform **post-production** sound engineering duties.

No applicable SLOs.

GLO 4.6: Demonstrate **striking** a live performance.

No applicable SLOs.

Goal 5: Describe and demonstrate the transferable **cross-curricular** knowledge and skills that are relevant to sound engineering.

GLO 5.1: Read, interpret, and communicate information that is relevant to sound engineering.

SLO 11A.5.1.1 Read, interpret, and communicate information related to audio theory and music theory.

GLO 5.2: Apply the knowledge and skills from **mathematics** that are relevant to sound engineering.

SLO 11A.5.2.1 Demonstrate an understanding of the relationship between mathematics and music theory.

SLO 11A.5.2.2 Demonstrate an understanding of the use of fractions in mathematical notation.

GLO 5.3: Apply the knowledge and skills from **the sciences** that are relevant to sound engineering.

SLO 11A.5.3.1 Demonstrate an understanding of

- the properties of sound
- sound pressure levels (SPL)
- decibels
- loudness
- power

- Fletcher/Munson curves (contours of equal loudness)
 - resonance
 - pitch versus frequency
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GLO 5.4: Apply the knowledge and skills from **other subject areas** (e.g., information and communication technology, electronics, the arts) that are relevant to sound engineering.

SLO 11A.5.4.1 Input a complex score using music notation software.

Goal 6: Demonstrate an awareness of **sustainability** as it pertains to sound engineering.

GLO 6.1: Describe the impact of **human sustainability** on the well-being of those employed in the music industry and their consumers.

SLO 11A.6.1.1 Demonstrate an awareness of human sustainability.

SLO 11A.6.1.2 Discuss how music contributes to human health and well-being.

Goal 7: Demonstrate an awareness of the **ethical and legal standards** as they pertain to sound engineering.

GLO 7.1: Demonstrate an awareness of the **ethical and legal standards** as they pertain to sound engineering.

No applicable SLOs.

Goal 8: Demonstrate **employability** skills.

GLO 8.1: Demonstrate **fundamental employability skills**.

SLO 11A.8.1.1 Demonstrate regular and punctual attendance.

SLO 11A.8.1.2 Demonstrate the ability to communicate respectfully and effectively with teachers, supervisors, co-workers, and students.

SLO 11A.8.1.3 Demonstrate accountability by taking responsibility for their actions.

SLO 11A.8.1.4 Demonstrate adaptability, initiative, and effort.

SLO 11A.8.1.5 Demonstrate teamwork skills.

SLO 11A.8.1.6 Demonstrate the ability to stay on task and effectively use time in class and work environments.

SLO 11A.8.1.7 Demonstrate the responsible use of wireless communication devices.

GLO 8.2: Demonstrate an awareness of **cultural proficiency** and its importance in the workplace.

SLO 11A.8.2.1 Define and discuss the meaning of culture.

SLO 11A.8.2.2 Discuss the importance of culture in the workplace.

SLO 11A.8.2.3 Describe elements of traditional FNMI music.

GLO 8.3: Demonstrate **critical thinking skills**.

SLO 11A.8.3.1 Discuss the need for critical thinking.

SLO 11A.8.3.2 Discuss the need for problem-solving skills.

Goal 9: Demonstrate an understanding of the **industry**.

GLO 9.1: Demonstrate an understanding of the **scope** of the music industry.

SLO 11A.9.1.1 Demonstrate an understanding of the scope of sound engineering.

GLO 9.2: Demonstrate an understanding of the **educational and career opportunities**, as well as **industry associations**, in the sound engineering industry.

SLO 11A.9.2.1 Demonstrate an awareness of the scope of careers in sound engineering.

GLO 9.3: Demonstrate an understanding of **working conditions** in sound engineering.

SLO 11A.9.3.1 Describe the working conditions related to different occupations in sound engineering.

Goal 10: Demonstrate an awareness of the **evolution, technological progression**, and **emerging trends** in sound engineering.

GLO 10.1: Describe the **history, technological progression**, and **emerging trends** in sound engineering.

SLO 11A.10.1.1 Describe the history, technological progression, and emerging trends in sound engineering.
