



### **Course Description**

#### **MUM2603 | Foundations of Audio Wiring | 2.00 - 3.00 credits**

Foundations of Audio Wiring is a hands-on course that provides students with practical knowledge and experience in audio wiring, soldering, and electronic troubleshooting. Designed for those pursuing careers in audio engineering, live sound, and studio maintenance, this course covers essential wiring techniques, tools, and safety procedures for working with audio equipment. Prior knowledge of basic electrical concepts is recommended but not required.

### **Course Competencies:**

**Competency 1:** The student will demonstrate knowledge of audio connectors and wire standards by:

1. Describing the various audio connectors and corresponding wire standards.
2. Defining appropriate cables for specific audio applications
3. Describing the electrical differences between balanced and unbalanced audio circuits and applying these principles to choose the right cables for different environments

**Competency 2:** The student will demonstrate understanding of key tools used in audio wiring by:

1. Describing the function and proper use of soldering irons, disordering tools, helping hands, wire cutters, strippers, and crimping tools
2. Using multimeters and continuity testers for testing and troubleshooting electrical issues in cables and circuits

**Competency 3:** The student will demonstrate competence in electronic soldering by:

1. Constructing and repairing audio cables using proper soldering techniques, heat shrink tubing, and electrical tape
2. Building simple audio-related electronic projects

**Competency 4:** The student will demonstrate knowledge of basic electronic circuitry by:

1. Identifying and describing the function of electronic components
2. Measuring electrical values found in simple audio circuitry
3. Explaining series and parallel wiring concepts and applying them to real-world audio setups

**Competency 5:** Students will demonstrate understanding of power and grounding in audio systems by:

1. Explaining the importance of proper grounding to prevent hum, interference, and electrical hazards.
2. Describing common grounding protocols
3. Identifying methods to mitigate hum and noise caused by improper grounding

**Competency 6:** The student will demonstrate knowledge of safety procedures in audio wiring by:

1. Explaining and implementing safety guidelines for working with audio equipment
2. Identifying and mitigating potential hazards in audio wiring environments, such as exposed wires, improper grounding, or overloading power sources

### **Learning Outcomes:**

- Communicate effectively using listening, speaking, reading, and writing skills
- Use computer and emerging technologies effectively
- Demonstrate an appreciation for aesthetics and creative activities