

UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

**Upgrades for Music Technology and
Education Laboratory in the School of Music**

Title

Chris Munson

Name of Submitter
(Faculty or Staff Only)

School of Music / College of Arts

Organization

Title: Upgrades to the Music Technology and Education Laboratory in the School of Music Date: July 4, 2024

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Department/College/Org: School of Music / College of Arts

ABSTRACT (250 words or less):

The Music Technology and Education Laboratory is one of several classrooms in the School of Music that is in high demand. Currently, at least 18 different courses utilize this space for lectures and lab experiences in computer-based music. Recently, the University approved a new Bachelor of Arts in Recording Arts program which began accepting students in the 2021-22 academic year. The program has seen interest beyond our initial projections and was the fastest growing program in the College of the Arts during the 2023-24 academic year. The rapid influx of new students has placed increased demand on the computers, hardware, and software in this classroom. Additional sections of existing courses will be added during the 2024-25 academic year to meet student demand. The current hardware is beginning to show signs of failure and many of the software programs are outdated. These components are integral in every course taught in this classroom and it is critical to perform these upgrades to ensure a positive student learning experience.

The Music Technology and Education Laboratory was established through a Board of Regents grant in 2005. The facility was designed to house 16 computer stations for students and one instructor's station. The instructor's station is connected to a projector and audio playback system. This provides faculty the ability to blend lecture, demonstration, guided listening, and hands on experience for students taking courses in Music Media, Music Business, Recording Arts, Music Education, Theater Production, Music Theory, and Moving Image Arts.

A previous STEP project was awarded to address the need to replace several failing computers and antiquated software/hardware in this classroom. These upgrades met the demand of the laboratory during that time but are not adequate for current demands attributed to the increase of new Recording Arts majors. The growth of this program has been so rapid that additional sections of at least four of the courses taught in this classroom will be added in the coming academic year.

The Music Technology and Education Laboratory now plays a more crucial role in offsetting demands for other spaces and resources in the School of Music than it has in previous years. The current and future potential enrollment growth and additional curriculum pose several problems for the current facility:

- We currently lack adequate funding for site licenses for software needed to teach new courses in Recording Arts.
- The software currently utilized in the laboratory is now 4 years old and behind on several crucial updates.
- The computers utilized in the laboratory are inadequate in terms of processing power and storage capabilities that are needed for the projected demands on the facility in the coming academic years. Several of them are beginning to crash on a regular basis, which often causes students to lose progress on projects related to their courses.

Macintosh computers are an industry standard for audio and visual arts, and the iMacs selected for this proposal are the most cost-effective versions that can handle the storage and processing demands for all the courses and laboratory work in this room. The computers will be able to be configured in a way that will allow the various audio recording and composing platforms selected to be utilized optimally in courses that are currently taught in the lab. The iMacs currently being used in the lab will be repurposed and installed in the Music Resource Center where there is also significant need for upgrades.

The **M-Audio** keyboards were selected for multiple reasons. They are inexpensive but reliable and considered an industry standard for computer-based music production. They offer a low-profile solution to the space limitations in the lab. The keyboards also come with additional controllers (faders, knobs, and pads) that will allow the instructor and students to control multiple functions in the various recording platforms seamlessly.

Pro Tools has been the most common DAW (digital audio workstation) in commercial recording studios for nearly two decades. Recording Arts students are required to take two courses in introductory and advanced training in Pro Tools which makes them highly marketable in the music industry upon graduation. Having additional Pro Tools stations in this classroom allows students in Music Media, Recording Arts, and Music Business to work on audio projects in multiple locations which off-sets demand for our recording studio and post-production studio. The Pro Tools site license is subscription based and requires annual renewal.

Ableton is a DAW that is primarily used for beat making and instantaneous music creation in both studio and live concert settings. It is a go to platform for a multitude of genres and there is an increase in demand for individuals who can operate Ableton for touring acts, recording studios, and houses of worship. We purchased licenses for Ableton in 2020. Recording Arts students are required to take a course in Ableton and Music Media students are also required to be knowledgeable with this software. Our current version of Ableton is several years old and lacking a variety of important updates and new features that students need experience with to be marketable in the music industry.

Reason can best be described as a virtual recording studio. The software includes virtual synthesizers, effects processing, and MIDI and audio recording functionality. Its primary function is synthesis and sound design, and it allows the student to have access to a cache of virtual instruments that would typically cost hundreds of thousands of dollars in their physical form. We currently use Reason in our music technology and film scoring classes.

The hardware and software selected is all industry standard and will enable faculty to present in-depth instruction in music production, beat making, audio editing, music synthesis, programming, mixing, mastering, digital composition, sound design, and film scoring.

Though this lab is used by students in multiple concentrations and degree programs, the primary programs that utilize this facility are Music Media, Recording Arts, and Music Business – our most popular concentrations which continually see steady growth and enrollment.

The Music Technology and Education Lab is used for the following courses:

- THEA 352 - Scenic Design for the Stage
- MUS 237 - History of the Recording Industry
- MUS 243 - Pro Tools 1
- MUS 244 - Pro Tools 2
- MUS 276 - Intro to Music Technology, also a course taken by Moving Image Arts majors
- MUS 277 - Music Synthesis
- MUS 311 – Ableton
- MUS 350 - Tonal Counterpoint (occasional use for music notation)
- MUS 376 - Recording Techniques I, over 30 students per section, used for lab assignments
- MUS 377 - Recording Techniques II, over 30 students per section, used for lab assignments
- MUS 422 - Live Sound and Postproduction, over 25 students per section, used for lab assignments
- MUS 431 - Marching Band Techniques (animated marching band routines)
- MUS 432 - Advanced Electronic Music
- MUS 438 - Film Scoring I (for lab use)
- MUS 441 - Advanced Topics in Music Media (for lab use)
- MUS 466 - Capstone Project
- MUS 515 - Music Research and Bibliography
- MUS 578 - Analysis of Twentieth Century Music (occasional use)

It is projected that the enhancement will have a lifetime of 5 years.

Person(s) responsible for Implementation- Chris Munson

Installation- Chris Munson and IT Staff

Maintenance- Chris Munson and IT Staff

Operation- Chris Munson

Training (with qualifications)- Chris Munson, Music Media and Recording Arts Coordinator, Supervisor of Music Technology and Education Lab.

I have had three STEP projects funded in the past. They have helped to fund upgrades to the Music Technology Education Lab and upgrade computers in our music studios.

Budget Proposal

1.	Equipment		\$40,040.61
QTY	EQUIPMENT	PRICE	TOTAL PRICE
17	Apple iMac Computers (with Apple Care)	\$2,096.33.00	\$35,637.61

17	M-Audio Oxygen Pro 49 Keyboard	\$ 259.00	\$ 4,403.00
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2. Software

\$12,430.00

QTY	EQUIPMENT	PRICE	TOTAL PRICE
17	Pro Tools Multi-seat License	\$	\$1,584.00
17	Ableton Live 12 Academic	\$ 439.00	\$7,463.00
17	Reason 13 Upgrade	\$ 199.00	\$3,383.00

TOTAL: **\$52,470.61**