# 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    Date:    January 4, Laboratory in the School of Music    2021

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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 currently one of several classrooms in the School of Music that is in high demand. At this time, over one dozen classes utilize this space for lectures and lab experiences in computer based music. Recently, the University approved a new Bachelor of Arts degree in Recording Arts. This means that beginning in the fall 2021 semester, the School of Music will incrementally introduce ten additional classes that need to utilize this space in some capacity. The University is also featuring the Recording Arts degree in a pilot recruitment program intended to increase enrollment and retention. In anticipation of an influx of new students and additional demands on this classroom, it is necessary to make preemptive equipment upgrades and purchase additional software and hardware that will be taught as part of the new curriculum associated with this degree.

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 facility. These upgrades met the demand of the laboratory during that time but will not be adequate for the anticipated influx of approximately 50 new Recording Arts majors in upcoming academic years. This anticipated influx is attributed to the growing demand for this type of degree and a pilot recruiting program by the University to target incoming freshmen for both this degree and the B.A. in Music Business.

It is expected that the Music Technology and Education Laboratory will play a much more crucial role in offsetting demands for other spaces and resources in the School of Music in the near future. The potential enrollment growth and additional curriculum pose several problems for the current facility:
- We currently lack site licenses for software needed to teach new curriculum in Recording Arts
- The software currently utilized in the laboratory is now 4 years old and behind on several crucial updates
- The computers currently 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

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 both currently taught, and anticipated to be 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 and knobs) 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. Installing this software in the lab will allow students to be guided through two courses in introductory and advanced training in Pro Tools which will make them highly marketable in the music industry upon graduation. This will also permit students in Music Media, Recording Arts, and Music Business to have access to additional computer stations with this software so that increased demand for the classrooms housing the recording studio and post-production studio will be offset.

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 a singular license for Ableton in 2020 and will begin utilizing the software in Music Media courses this spring because of the increased demand among our students to become more proficient with it.

Digital Performer is a DAW that integrates both audio and MIDI (musical instrument digital interface) functions in one program. It allows the user to record and / or program music, sync audio to film, and control other audio recording software simultaneously. We currently utilize Digital Performer in our recording studios and film scoring labs as it is an industry standard in music for moving images.

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 and Music Business – our two most popular concentrations with steady growth and enrollment. The Recording Arts degree will likely experience the same levels of growth and is the primary catalyst for the request to upgrade the facility in anticipation of increased demands and usage.

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

- THEA352 - Scenic Design for the Stage
- MUS238 - Music Industry (occasional use)
- MUS276 - Intro to Music Technology, also a course taken by Moving Image Arts majors
- MUS277 - Music Synthesis
- MUS376 - Recording Techniques I, over 25 students per section, used for lab assignments
- MUS377 - Recoding Techniques II, over 25 students per section, used for lab assignments
- MUS422 - Live Sound and Postproduction, over 25 students per section, used for lab assignments
- MUS 431 - Marching Band Techniques (animated marching band routines)
- MUS 438 - Film Scoring I (for lab use)
- MUS 441 - Advanced Topics in Music Media (for lab use)
- MUS 350 - Tonal Counterpoint (occasional use for music notation)
- MUS 515 - Music Research and Bibliography
- MUS 578 - Analysis of Twentieth Century Music (occasional use)

The Music Technology and Education Lab will be used for the following additional courses beginning Fall 2021:

- MUS 237 - History of the Recording Industry
- MUS 243 - Pro Tools 1
- MUS 244 - Pro Tools 2
- MUS 311 – Ableton
- MUS 432 - Advanced Electronic Music
- MUS 466 - Capstone Project

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 Coordinator, Supervisor of Music Technology and Education Lab.

I have had two STEP projects funded in the past. One of these projects was for this same music technology lab and allowed us to purchase and install the computers, keyboards, and software we are currently using. The other project funded the purchase of new iMac computers for our music media and audio production classrooms.

# Budget Proposal

**1.**    **Equipment**                                                      **$27,829.00**

| QTY | EQUIPMENT | PRICE | TOTAL PRICE |
|---|---|---|---|
| 17 | Apple iMac Computers (with Apple Care) | $1,498.00 | $25,313.00 |
| 17 | M-Audio Oxygen 49 Keyboard | $  148.00 | $  2,516.00 |

**2.**    **Software**                                                          **$12,188.15**

| QTY | EQUIPMENT | PRICE | TOTAL PRICE |
|---|---|---|---|
| 17 | Pro Tools Academic | $   49.95 | $  849.15 |
| 17 | Ableton Live 10 Academic | $  400.00 | $6,800.00 |
| 17 | Digital Performer 10 Upgrade | $  199.00 | $3,315.00 |
| 17 | Reason 11 Upgrade | $   72.00 | $1,224.00 |

**TOTAL:**                                                                        **$40,117.15**