

# UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

**Computer Replacement for Music Media /  
Business Audio Production Classrooms in the  
School of Music**

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Title

**Chris Munson**

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Name of Submitter  
*(Faculty or Staff Only)*

**School of Music / College of Arts**

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Organization

Title: Computer Replacement for Music Media / Business Audio Production Classrooms in the School of Music Date: 7/15/18

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

**ABSTRACT (250 words or less):**

The Music Media / Business audio production classrooms are located in three separate spaces within Angelle Hall. These classrooms include ANG 158 (recording studio / rehearsal space), ANG 222 (post-production studio), and ANG 226 (film scoring laboratory). The classrooms primarily use the current computers for five (5) different courses in audio production and film scoring. However, students enrolled in these courses work on course specific and independent projects with a multitude of School of Music ensembles, University groups, and various film projects and social media campaigns associated with the University. The computers are used on a daily basis by over 50 students and have not been upgraded or replaced in five (5) years. The continual usage includes demanding storage and processing requirements that have taken a noticeable toll on the performance and reliability of all three computers. The computers frequently crash or cause files to become corrupt, which in turn causes disruptions in classroom teaching and course related student projects. We anticipate these computers failing in the near future and it is for this reason that we request replacing all three of them.

The recording studio (ANG 158), post-production studio (ANG 222), and film scoring laboratory (ANG 226) were established approximately 30 years ago through donations to the School of Music. The classrooms house audio production and computer based composition equipment which is used to blend lecture, demonstration, guided and intensive listening, and hand-on experience in audio recording, film scoring, and computer based music composition. During the 2013-14 academic year, computers in ANG 158 and 222 both failed, causing disruptions to multiple classes, loss of student projects, and prevented students from using the facilities as needed to complete course related projects. Emergency funds were issued by the University to purchase a computer for ANG 158 while temporary solutions were found to repair / replace the damaged computer in ANG 222. All three classrooms are in need of computer replacement in order to avoid equipment failure and course disruption. Our current computer situation poses multiple issues:

- All three computers boot unreliably. In some instances, it can take upwards of 20 minutes for the computers to boot which necessitates the faculty member arrive to class early to make sure the computer works. This is problematic if the instructor teaches during the previous hour or the course starts at 8:00 a.m.
- All three computers have difficulty processing audio and video efficiently and frequently ‘drop samples’. The ability of current software and third party plug ins to manipulate audio and video has advanced so dramatically in the past 5 years that our current computers are unable to process common tasks effectively. This leads to inefficient rendering of audio, loss of fidelity, or total computer crash.
- There are over 50 students using the computers in all three classrooms for projects each semester. When a computer crashes, runs slowly, or renders audio incorrectly, this causes a student to spend additional time working on their project. Since time is a precious commodity in these facilities, extended lab time for one student due to computer issues causes disruptions to additional students waiting to use the equipment afterward.

The audio recording and composition stations in these classrooms are designed to give students real world experience in audio production and film scoring. In order for the students to have the best possible experience, it is necessary for the computers to be completely reliable. This insures that faculty members are able to lecture and demonstrate concepts to the best of their abilities and that students can work on projects during assigned lab time without the disruption of faulty equipment. Additionally, current computer issues in these three classrooms necessitates that a faculty member take time to diagnose, troubleshoot, and repair problems as they arise which causes disruption in their daily schedule.

Three (3) iMac Pros with identical specifications would be ideal for these classrooms.

- 3.2GHz 8-core Intel Xeon W processor
- Turbo Boost up to 4.2GHz
- 32GB 2666MHz ECC memory, configurable up to 128GB
- 1TB SSD storage<sup>1</sup>
- Radeon Pro Vega 56 with 8GB HBM2 memory
- 10Gb Ethernet
- Four Thunderbolt 3 ports
- 27-inch Retina 5K 5120-by-2880 P3 display

Computers are the backbone of creation in audio production, film score composition, modern music composition, live sound production, and film production. Macintosh computers are known as an industry standard and students graduating from our programs will encounter these computers in the work place. The iMac Pro was selected for multiple reasons.

- It has powerful processing ability. It is not uncommon for modern audio productions / film scores to have upwards of 100 instruments playing simultaneously. The ability to blend and manipulate these instruments, along with any video, requires tremendous processing power from the computer.
- There is abundant storage space on the hard drive. Audio production files can take be anywhere from 1-5 gigabytes per song, and even larger at times. With approximately 50 students each working on multiple audio / film projects during the semester, significant storage space is required.
- The vast majority of audio interfaces connect to computers via Thunderbolt ports and it is important that the computer have multiple ports to accommodate multiple interfaces.
- A 27" display provides visibility for all students during lecture and the ability to work in fine detail during individual lab time.

The audio production and composition equipment in these three classrooms is primarily utilized by students in our Music Media and Music Business degree programs. Students in these two programs work closely with one another and they represent our two most popular degree tracks, with anywhere from 100-120 combined majors during any given semester. It is also common for students in other Music degree programs to take these courses as well as students in Moving Image Arts, Theater, and Computer Sciences. Audio production is one of the most rapidly growing areas of study in schools of music around the globe and it is imperative that we keep our facilities up-to-date in order to retain and recruit students.

The audio production equipment in these classrooms also serves as a bridge for our students to collaborate with other members of our University and community. This has included recording student and faculty ensembles, composing and recording for various University film projects, assisting with University social media campaigns, creating a student run record label that interacts with community artists, assisting with recordings at KRVS, and providing equipment and support for various live productions in Angelle Hall.

The recording studio (ANG 158), post-production studio (ANG 22), and film scoring studio (ANG 226) are used for the following classes:

AMUS 115 / 315 – This includes multiple ensembles. Jazz combos 1-3, jazz ensemble, blues ensemble, traditional music ensemble, acoustic blues ensemble, bluegrass ensemble, etc.

MUS 376 – Audio Recording Techniques 1

MUS 377 – Audio Recording Techniques 2

MUS 422 – Live Sound and Post-production

MUS 438 – Film Scoring 1

MUS 439 – Film Scoring 2

It is projected that this enhancement will have a lifetime of five (5) years.

Person(s) responsible for

Implementation – Chris Munson and IT staff

Installation – Chris Munson

Maintenance – Chris Munson and IT staff

Operation – Chris Munson

Training (with qualifications) – Chris Munson, Music Media Coordinator, Supervisor of Music Technology Labs and Classrooms

Previously funded STEP projects include the Update for the Music Technology / Education Laboratory in the School of Music. This project was funded during the Spring 2018 cycle and will be used to upgrade our Music Technology classroom with iMac computers, MIDI keyboards, and new software this fall. Continuing to upgrade the audio production facilities will help create continuity between all of our classrooms / laboratories and provide students with a reliable, uniform experience that resembles what they can expect to encounter in the work place upon graduation.

## Budget Proposal

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<b>1.</b>	<b>Equipment</b>			<b>\$14,247</b>
<b>QTY</b>	<b>Equipment</b>	<b>Price</b>		<b>Total Price</b>
(3)	iMac Pro	\$4,599		\$13,797
(3)	Apple Care	\$ 159		\$ 477

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<b>TOTAL:</b>				<b>\$14,247</b>
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