

UNIVERSITY OF LOUISIANA AT LAFAYETTE

**STEP Committee
Technology Fee Application**

**MDD 212 Computer Lab
Expansion and Upgrade**

Title

Dr. James Kimball & Dr. Bruce Wade

Submitter

Department of Mathematics

Organization

Title: MDD 212 Computer Lab Expansion and Upgrade Date: 01-15-2021
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Department/College/Org: Department of Mathematics/College of Sciences

ABSTRACT:

The Department of Mathematics is requesting support to expand and upgrade its computer lab in MDD 212. This grant will increase the seating capacity of the lab from 24 to 40 seats while also updating the outdated projection and presentation equipment. As demand for computer assisted classes increases, finding available times for all the classes and professors requesting the computer lab is increasingly difficult. Several courses, such as STAT 417 and STAT 454, run multiple sections every semester due to limit seating in MDD 212. In addition to increased seating, we plan to add 8 additional desktop computers for students and reserve 8 open seats for students who may prefer to bring personal laptops. Support from STEP will also allow us to add a ceiling mounted short-throw projector for additional flexibility in teaching and remote delivery options. The current projector in MDD 212 sits on a desk in the front of the classroom, which limits seating and is often obstructed by the teacher. It is of low quality and today's enhanced presentation have outpaced the capabilities of the projector.

We propose to purchase replacement lab tables and chairs, one multimedia projector and white or glass boards to be used in the computer lab by faculty and students. The projector has wireless access and works with any PC, Mac, tablet or smartphone. It would allow the use of ordinary whiteboard or glass board as interactive devices, in which the instructor writes with a special marker to be captured electronically and available for reuse. The projector would be a crucial tool for our instructors, allowing them to enhance instruction in any mathematics or statistics course by supplementing their lectures with graphical and digital resources. The projector would help the departmental online and hybrid online course instructors interact with remote students. Moreover, seating and reorganization allows for greater capacity use.

A. Purpose of grant and impact to student body as a whole

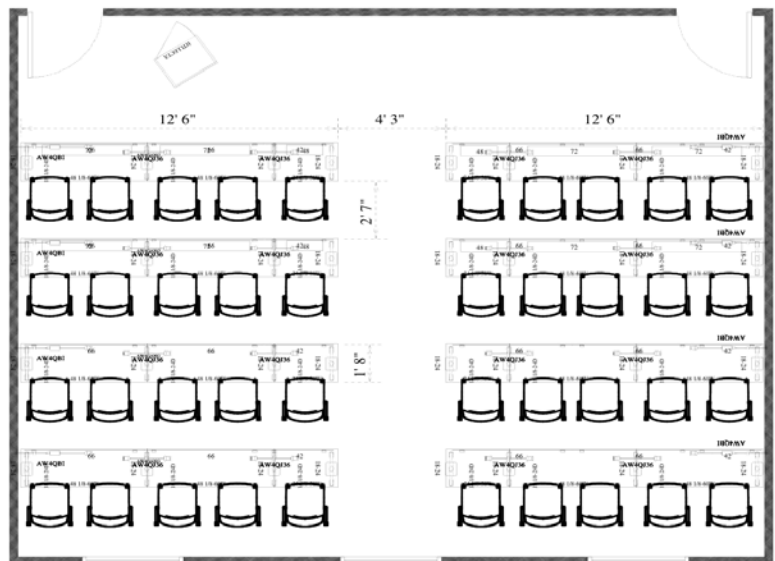
The Department of Mathematics offers multiple computer assisted undergraduate and graduate courses. Courses such as STAT 417, *Biometry* and STAT 454, *Operations Research* are taught in MDD 212 and are designed for students outside of the mathematics major. Because of the limited seating in the computer lab, we regularly offer two to four sections of these classes to accommodate students. This greatly reduces the availability of the lab for other courses. Courses taught in MDD 212 that service multiple majors are Computational Mathematics, Numerical Analysis, Regression Analysis, Biomathematics I and II, Experimental Design, and Statistical Computing. With improved facilities, there are even more mathematics or statistics courses that would take advantage of the teaching/computer lab.

Additionally, with the projector our online faculty have a better opportunity to innovate in content delivery, such as: To create videos for online consumption, have quality interactive virtual office hours, meet with remote students through Zoom, Teams or Adobe Connect, encourage virtual study groups or homework sessions, or create special online lectures. The device description emphasizes that ... “PC-free whiteboard sharing enables remote collaboration with offsite participants.”

Existing MDD 212:



Expanded and Upgraded MDD 212:



B. Projected lifetime of enhancement:

The computers are expected to last between five and ten years before needing upgrades or replacement. The projector is expected to last ten years.

C. Persons responsible:

- i. Implementation:** Mrs. Glenda Evans-Broussard, Dr. Jared Guilbeau, and Dr. Bruce Wade
- ii. Installation:** Individual users in the Department, Dr. Jared Guilbeau, and Dr. Bruce Wade
- iii. Maintenance:** Dr. Jared Guilbeau, Mrs. Glenda Evans-Broussard
- iv. Operation:** Faculty/Graduate Teaching Assistants in the Department of Mathematics
- v. Training:** No training is required

Budget Proposal

1.	Equipment:	8 Desktop PCs (\$965/unit)	\$7,720
		16 Two-person Computer Tables (\$375/unit)	\$6,000
		8 One-Person Computer Tables (\$250/unit)	\$2,000
		41 Chairs (\$150/unit)	\$6,150
		1 – Podium	\$844
		1 - Projector and equipment	\$4,500
		2 - White Board	\$3,000
2.	Software:	Utilize current computer lab software to new PCs	\$0
3.	Supplies:	No additional supplies are needed	
4.	Maintenance:	None anticipated	
5.	Personnel:	None	
6.	Other, Installation Labor:		
		Additional electrical and network drops	\$800
		Installation of projector	\$600

TOTAL: **\$31,614**

MATH DEPARTMENT COST SHARE (COMPUTERS): **(\$7,720)**

TOTAL STEP REQUEST: **\$23,894**