

UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

FGM 205 Active Learning Classroom Enhancement

Title

B.I. Moody III College of Business Administration
Angel Littlejohn, ISM Manager

Name of Submitter
(Faculty or Staff Only)

B.I. Moody III College of Business Administration (MCOBA)
Information Systems & Multimedia Laboratories (ISM)

Organization

Title: FGM 205 Active Learning Classroom Enhancement Date: July 2023
Name (Contact Person): Angel Littlejohn
Address: P.O. Box 43545 Lafayette, LA 70504-3545
Phone Number: 482-5783 Email: angel.littlejohn@louisiana.edu
Department/College/Org: B.I. Moody III College of Business Administration (MCOBA)
Information Systems & Multimedia Laboratories (ISM)

ABSTRACT (250 words or less):

This grant proposal is requesting support to equip FG Mouton room 205 with the technology and fixtures necessary to create an active learning classroom that promotes a collaborative and engaging environment for both instructors and students. FGM 205 has an over seven-year-old antiquated projector, seven year-old computer, no document camera, and forty (40) antiquated desks which hinder instructional quality, student collaboration, use of the room for courses needing technology, and use of the room for special programming (i.e. sales competition).

The Moody College of Business Administration's Office of Information Systems & Multimedia Laboratories (ISM) is requesting to upgrade this room with technological improvements including one (1) new computer, one (1) ceiling-mounted projector, one (1) document camera, one (1) SMART podium, twenty (20) tables, and forty (40) chairs. These enhancements support the University's values of collaboration, intellectual curiosity, and creativity and would have a substantial impact on the experience for all faculty and students utilizing this classroom across multiple colleges and disciplines.

The funding support of this request will serve students, faculty, and staff from all disciplines by equipping the classroom with the technology needed to meet their expectations.

Purpose of Grant and Impact to Student Body as a Whole

The need for an active learning classroom with updated technology is a necessity for our faculty to incorporate teaching strategies beyond traditional lecture. Our goal is to create a flexible classroom environment that supports students in the many ways they learn. The active learning concept promotes the opportunity for small group collaboration on problem-solving, team-based projects and discussions. An active learning classroom environment promotes student-centered learning and instructor engagement. Implementation of a flexible learning space that combines classroom design, technology, and furniture can improve the quality of teaching and learning (Persk, Orr & Alomari, 2016).

Most students today have grown up using technology. The adoption of digital technology has transformed teaching and all classroom engagement. This classroom is currently not being used to its full capacity because it lacks the necessary up-to-date modern equipment for faculty to teach. Technology and flexible workspaces in the classroom make it feasible for students to collaborate with one another and with their instructors. It also helps the instructor improve their teaching process when access to flexible, friendly learning spaces are available.

A study published in the peer-reviewed journal *Planning for Higher Education* (Barritt & Knox (2013)) noted "students and faculty were asked to compare their experience in traditionally-furnished classrooms

with an environment designed to provide more flexibility in learning. The results showed that classrooms designed for active learning—i.e., where physical space supports a focus on engaging experiences for students and faculty—had a statistically significant effect on student engagement.”. More flexibility in a learning environment is further supported by the Hartikainen et al (2019) study that showed student’s self-construction of knowledge is a vital part of active learning.

ISM conducts ongoing surveys of technology needs in the classroom - the results are overwhelming and clear, showing just how necessary a computer, overhead projector, and document camera are to the instructors. Empirical evidence shows a marked improvement in student engagement and success when the necessary technology is present. According to the majority of surveys, about 88% of faculty members utilize document cameras for effective teaching, especially when they demonstrate complex problems for the students to practice. The data is concise - when instructors are able to teach utilizing technology, they are most effective and students are more engaged and actively participating in the class.

Yale University’s Poorvue Center for Teaching and Learning website (<https://poorvucenter.yale.edu/ClassroomSeatingArrangements>) emphasizes best practices. One report states “the physical setup of chairs, tables, and technology in a classroom can significantly influence learning. Instructional communication theory suggests that seating arrangements can impact how the instructor communicates with students and how the students interact with one another, impacting engagement, motivation, and focus” (McCorskey & McVetta, 1978). More recent research also suggests that students tend to prefer more flexible seating arrangements (Harvey & Kenyon, 2013). More flexible seating arrangements will allow more interactive work with others, which connects with active learning through collaboration, interaction, and dialogue (Hartikainen et al 2019).

The requested technology would allow instructors to teach using graphs, PowerPoint slides, videos, and simulations. Some disciplines, such as accounting, also have a need for a document camera. These instructors need equipment that allows them to walk their students through the case scenarios that they are discussing when teaching problem solving. This technology is also paramount for students with a visual learning style. This classroom lacks vital technology components for effective instruction thereby placing constraints on classroom usability.

FGM Mouton 205 accommodates up to 40 students. Instructors from several different disciplines teach in FGM classrooms, so this upgrade would create a supportive collaborative learning environment for a wide array of students, not just limited to MCOBA students. Other classes periodically taught in FGM include math, counseling, communications, educational foundations and leadership, political science, psychology, and physics.

Improved technology also promotes better testing and allows for better assessment. Such testing may be using easier standardized testing methods or through immediate in-class answer systems (response clickers). Using these formats, teachers can quickly see which students require more assistance, and instruction can be tailored to the individual needs of the students.

Existing Issues

FGM 205 currently includes an outdated computer, antiquated projector, manual projector screen, desktop audio speakers, and forty (40) antiquated desks.

- Computer: The computer in FGM 205 is very old (installed at least seven years ago) and has dissuaded faculty members from installing more modern and current versions of needed instructional software. Not being able to teach using current software simultaneously hinders the teachers and negatively affects the learning of students. There have been multiple complaints received about the slow PC in this classroom.
- Projector: FGM 205 contains an older projector (estimated age is eight years old) causing multiple maintenance issues. For example, the light bulb dying out at a highly accelerated rate which takes additional personnel time to fix and increases bulb replacement costs. Additionally, the image projected is of poor quality making it difficult for students to read what is on the screen. The culmination of these preventable issues take away from class time and causes quite the disruption if the teacher is unable to use the projector.
- Audio/Speakers: Existing speakers are outdated speakers. They provide limited volume and low quality.
- Student Desks: The existing desks do not support a flexible, active learning classroom environment or promote inclusion of students with learning and/or physical disabilities. This situation affects their ability to effectively use any electronic resources the instructor may provide. The current arrangement does not offer any flexibility in the room configuration which impacts learning and engagement.

Funding Objectives

- Upgrade technology to support current teaching methods and inclusion of students who are using their personal laptop computers or mobile devices.
- Broaden instructor's ability to adjust the room environment to suit the flow of learning throughout a class period (i.e. students can work in groups/pods).
- Allow instructors and students a high degree of control over their interactions.
- Improve instructional quality and enrich student-learning experiences.
- Increase the opportunity for students to engage and collaborate with each other.
- Foster communication and collaboration skills.
- Provide accessibility to students with learning and/or physical disabilities.

Proposed Active Learning Classroom Enhancements

- Implement modern adaptable and mobile tablet seating that supports laptop computer/mobile devices, left/right hand users, varying body types, students with learning and/or physical disabilities, and adaptable positioning to create different classroom setup opportunities.
- Replace the existing technology with an updated projector, audio, and computer.
- Add a SMART podium and document camera to the classroom technology suite.

While the requested technological equipment is the standard setup for a SMART classroom, the enhancement of FGM 205 into an active learning classroom will provide instructors the resources needed to promote student engagement and collaboration. If this grant request receives funding, it will enhance the College of Business and the University by improving student- centered learning experience. The funding of this grant would also put us one-step closer to fulfilling the University’s vision of making every classroom on campus a SMART classroom.

FGM 205 is mainly utilized for business classes; however, it is also utilized for classes in different colleges. For example, as shown below, FGM 205 is scheduled as shown below, but may change:

Time	Monday	Wednesday	Friday	Time	Tuesday	Thursday	Classroom Type
8:00				8:00			STEP Smart
8:50				9:15			FGM 205
9:00				9:30	BLAW 424-001 Davis 5/2/23 mh		Classroom Capacity
9:50				10:45			40
10:00				11:00			Sustainable
10:50				12:15			STEP SMART
11:00				12:30	MGMT 490-006 Smith 11/28/22 mh		
11:50				1:45			
12:00				2:00			
12:50				3:15			
1:00	QMET 352-007 Tanner 2/14/23 mh			3:30			
2:15				4:45			
2:30	QMET 352-003 Tanner 2/14/23 mh			5:00 Till			
3:45							
4:00							
5:15							
6:00				6:00 Till			
Till							

FGM 205 can be utilized for purposes not related to classes. For example, as shown below, FGM 205 is being utilized for orientation on Tuesday, August 1st from 10 AM to 11:30 AM. Other event requests are expected as the semester progresses.

Special Room Reservations					
Date	Day of the WK	Start Time	End Time	Purpose	Contact Info
8/1	Tuesday	10:00 AM	11:30 AM	Orientation DG Group 3	Sarver - 2/27/23 - mh

Existing FGM 205: Antiquated seven-year-old computer, fifteen-year-old projector, and forty (40) antiquated desks.



Proposed FGM 205 Active Learning Classroom: New multimedia podium, computer, document camera, projector, forty (40) Stacking Multi-Purpose Chairs and twenty (20) 18 x 60 tables on casters.



Projected Lifetime of Enhancement

- Technology: Expected to have a five-year life span.
- Furniture: 15 year limited warranty.

Responsibilities

The person responsible for implementation and oversight of this project is Angel Littlejohn, MCOBA ISM Manager. Responsibilities include:

- a. Implementation
 - MCOBA ISM
- b. Installation
 - Technology: A state contractor for SMART technology installation, assisted by MCOBA ISM will install the projector, screen, podium and its components. MCOBA ISM will install the PC.
 - Furniture: General Office Supply
- c. Maintenance
 - MCOBA ISM: Provide ongoing maintenance and will immediately troubleshoot any problems that may occur.
- d. Operation
 - MCOBA ISM
- e. Training (with qualifications)
 - MCOBA ISM will train faculty and staff assigned to use the room.

MCOBA ISM currently maintains over 100 faculty and staff PCs, 8 classrooms in Moody Hall and 15 classrooms in FG Mouton that are enhanced with technology so the department is very familiar with the functionality of the equipment requested. MCOBA ISM has adequate staff capacity to handle the upkeep and maintenance of the equipment requested in this grant proposal.

Budget Proposal

- 1. Equipment - \$42,361.63**
 - Technology - \$17,675.43
 - Fixtures - \$24,686.20

- 2. Software \$0**

- 3. Supplies \$0**

- 4. Maintenance \$0**

- 5. Personnel \$0**

- 6. Other \$5250.00**

TOTAL: \$47,611.63

Budget Details

QUOTE NUMBER : SQAQW003894-1

CONTRACT # 4400019740

HON STATE CONTRACT - OMNIA

Make Purchase Orders to:

THE HON COMPANY

C/O GENERAL OFFICE SUPPLY

200 Oak St.

Muscataine, IA 52761

Joel Faulk, Furniture Sales / Project Manager



(Direct) 337-484-1532 / (Cell) 337-781-8882 / (Office) 337-237-2563
 3045 W. Pinhook – Lafayette, LA 70508
www.generalofficesupply.net

University of Louisiana at Lafayette




Dr. Lise Anne D. Slatten

B. I. Moody III College of Business Administration

Moody Hall, Room 226

6/15/2023

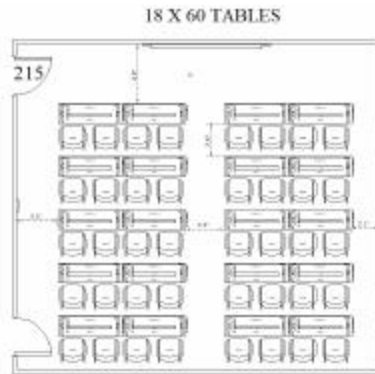
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Qty	Part Number	Part Description	List:	Sell %	Sell Price	Ext. Sell
20	HMT1860G	Huddle 18x60 Table Top w/Edgeband	\$469.00	53.40	\$218.55	\$4,371.00
						
	.N \$(L1STD) .S \$	No Grommets Grd L1 Standard Laminates Charcoal Charcoal				
20	HMBTLEG18	Huddle Fixed Height T-leg base For 18" tops	\$602.00	53.40	\$280.53	\$5,610.60
						
	.G \$(P1) .P	Glide P1 Paint Oots Black				
20	HMTUMOD56	Universal Mod Panel for 66" Motive tables	\$320.00	53.40	\$149.12	\$2,982.40
						
	\$(P1) CBK	P1 Paint Oots Charblack				

Qty	Part Number	Part Description	List:	Sell %	Sell Price	Ext. Sell
40	HIGS6	Ignition Guest/Multi-Purpose Chair Four-Leg Stacking	\$591.00	55.50	\$263.00	\$10,520.00
						
		<u>.N</u> Armless <u>.S</u> All Surface Caster <u>.JE</u> 4-Way Foot <u>\$(1)</u> Gr 1 UPH <u>.UR</u> Contoured <u>6d</u> Red <u>PLAT</u> Textured Platinum Metallic				
20	HLSLZ5SC54	42"W External Stiffener	\$129.00	53.40	\$60.11	\$1,202.20
						

DELIVERY, ALLEMBLY, & INSTALLATION INCLUDED
ALLOW 8 WEEKS FOR DELIVERY
 Pricing Good Through 07/31/23

List: \$54,040.00
Total Sell: \$24,686.20



SYSTEM A














IMAGE	QTY	DESCRIPTION	PRICE	PRICE EXT
	1	Dell 3XRX1 Dell OptiPlex 3000 - SFF - Core i5 12500 / 3 GHz - RAM 16 GB - SSD 256 GB - NVMe, Class 35 - UHD Graphics 770 - GigE - Win 10 Pro (includes Win 11 Pro License)	\$1,210.31	\$1,210.31
	1	Panasonic PT-VMZ51U7 5,200 lm WUXGA Laser LCD Projector / Digital Link / 4K Signal Input	\$3,226.28	\$3,226.28
	1	Chief CMA440 CEILING PLATE 8" X 24"	\$137.30	\$137.30
	1	Chief CMS006 FIXED PIPE 6"	\$19.97	\$19.97
	1	Chief RPMBU UNIVERSAL RPMB	\$269.61	\$269.61
	1	Epson V12H758020 EPSON DC-21 Document Camera	\$769.34	\$769.34
	1	ViewSonic TD2423D 24" IR 10-point Touch Display, 1920x1080 Full HD resolution.	\$408.76	\$408.76
	1	Ergotron 45-241-026 LX Desk Mount LCD Arm, Polished Aluminum	\$242.18	\$242.18
	1	Netgear GS305P-200NAS Netgear 300 GS305P PoE+ Unmanaged Ethernet Switch	\$88.38	\$88.38
	4	Black Box CAT6PC-004-BK CAT6 250-MHz Molded Snagless Patch Cable UTP CM PVC BK 4FT	\$3.78	\$15.12
	1	Black Box CAT6PC-010-BK CAT6 250-MHz Molded Snagless Patch Cable UTP CM PVC BK 10FT	\$5.69	\$5.69
	1	Startech USB2HAB15 15FT USB CABLE - A TO B USB CABLE - USB PRINTER CABLE - TYPE A TO B USB CABLE -	\$7.05	\$7.05
	1	Extron Electronics 60-1470-02 MLC Plus 200 MediaLink® Plus Controller	\$1,233.58	\$1,233.58






















IMAGE	QTY	DESCRIPTION	PRICE	PRICE EXT
	1	Extron Electronics 70-1097-03 SMB 113 Three US gang surface mount box: Black	\$204.38	\$204.38
	1	Extron Electronics 60-1238-81 IN1608 xi Standard Model	\$3,000.00	\$3,000.00
	1	Extron Electronics 60-1271-13 DTP HDMI 4K 230 Rx HDMI Twisted Pair Receiver - 230 feet (70 m)	\$416.06	\$416.06
	1	Extron Electronics 60-1761-01 XPA U 1002 Two Channel Amp, 100 watts at 8 or 4 ohms	\$627.74	\$627.74
	1	Extron Electronics 60-1308-02 SpeedMount Two-Way Surface Mount Speakers with 6.5" Woofer, Pair - Black	\$357.66	\$357.66
	3	Extron Electronics 26-663-03 HDMI Ultra/3 4K Premium High Speed HDMI Ultra-Flexible Cable - 3' (90 cm)	\$43.80	\$131.40
	2	Extron Electronics 26-663-06 HDMI Ultra/6 4K Premium High Speed HDMI Ultra-Flexible Cable - 6' (1.8 m)	\$62.77	\$125.54
	2	Extron Electronics 26-663-12 HDMI Ultra/12 4K Premium High Speed HDMI Ultra-Flexible Cable - 12' (3.6 m)	\$78.83	\$157.66
	1	Extron Electronics 26-663-15 HDMI Ultra/15 4K Premium High Speed HDMI Ultra-Flexible Cable - 15' (4.5 m)	\$90.51	\$90.51
	1	Extron Electronics 26-712-01 DPM-HDF 4K PLUS DisplayPort Male to HDMI Female Active Adapter	\$78.83	\$78.83
	1	Extron Electronics 60-604-02 RSB 129 1U 9.5" Deep Basic Rack Shelf	\$62.77	\$62.77
	1	Extron Electronics 70-1045-02 Cable Cubby 500 Cable Cubby 500, Black, No AC	\$278.83	\$278.83
	1	Extron Electronics 60-1891-01 AC+USB 314 US, Cord US (2) AC, (1) USBC, (1) USBA Outlets, 12 A Circuit Breaker, Integrated PS, 2 Outlets Under	\$445.26	\$445.26
	1	Shure MX418S/C Cardioid-18" Gooseneck Condenser Microphone, Attached Preamp with XLR, Shock Mount, Flange Mount, Snap-Fit Foam Windscreen, Mute Switch, LED Indicator	\$274.45	\$274.45
	1	Exact PM-300-C Podium Package 26" Lectern w/Standard Accessories	\$2,408.76	\$2,408.76

IMAGE	QTY	DESCRIPTION	PRICE	PRICE EXT
	1	Rack Accessory Package 1 Rack Accessory Package 1	\$729.21	\$729.21
	1	Middle Atlantic SDR-8 8 Space Solid Security Door	\$130.07	\$130.07
	1	Middle Atlantic TD2LK 2 Space Textured Rack Drawer w/Key	\$226.64	\$226.64
	1	Middle Atlantic RC-3 3SP CLAMPING RACKSHELF	\$84.09	\$84.09
	100	Windy City Wire CAT6SP-BLK 23-4P OAS SOL CMP C6 Blk Jkt CAT6 Cable	\$1.11	\$111.00
	100	Windy City Wire 22-2PREPSP-BLK 22-2P EPS STR CMP Blk Jkt Mic/Control Cable	\$0.47	\$47.00
	150	Windy City Wire 16-02P-BLK 16ga Unshielded 2-Pair Stranded Speaker Cable, Plenum	\$0.36	\$54.00

LABOR & INTEGRATION

	HOURS	RATE	PRICE
Install 1139823	50.00	\$105.00	\$5,250.00
EQUIPMENT TOTAL			\$17,675.43
LABOR TOTAL			\$5,250.00
TOTAL			\$17,675.43

Timeline/Implementation Schedule

- Fall 2023 – Place order for project
- Between Fall 2023 and Spring 2024 – Installation
- Between Fall 2023 and Spring 2024 – Implementation

Previously Funded STEP Projects

- *FGM 207 Interactive Classroom Enhancement.* Fall 2016. Nadine Prendergast.
- *Financial Services & Business Research Lab.* Fall 2016. Nadine Prendergast.
- *FGM 102 & 214 Interactive Classroom Enhancement.* Fall 2017. Nadine Prendergast and Mohammed Zubair.
- *FGM 215 Interactive Classroom Enhancement.* Spring 2018. Nadine Prendergast,

Grant Coulon and Sara Casiday.

- *FGM 208 Active Learning Classroom Enhancement*. Spring 2019. Phuc Tran.
- *FGM 204 Interactive Classroom Enhancement*. Fall 2019. Heather Devalcourt.
- *Creation of virtualized MCOBA MSAccess computer lab*. Summer 2020. Angel Littlejohn.
- *Creation of virtualized SPSS computer lab*. Summer 2020. Angel Littlejohn.
- *FGM 215 Active Learning Classroom Enhancement*. Spring 2023. Angel Littlejohn.
- *FGM 111 Computer Lab refresh*. Spring 2023. Angel Littlejohn.

References

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- Bergsagel, V. (2015, January 29). Can Classroom Furniture Improve Student Engagement? Retrieved January 7, 2019, from <https://www.gettingsmart.com/2015/01/can-classroom-furniture-improve-student-engagement/>.
- Hartikainen S, Rintala H, Pylväs L, Nokelainen P. (2019) The Concept of Active Learning and the Measurement of Learning Outcomes: A Review of Research in Engineering Higher Education. *Education Sciences*, 9(4):276. from <https://doi.org/10.3390/educsci9040276>
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- McCorskey JC and McVetta RW. (1978). Classroom Seating Arrangements: Instructional Communication Theory Versus Student Preferences. *Communication Education*, 27, 99-111.
- Persk T, Orr D and Alomari E. (2016, February) Classroom Re-design to Facilitate Student Learning: A Case Study of Changes to a University Classroom. *Journal of the Scholarship of Teaching and Learning*, 16 (1), 53-68.
- Yale University Poorvue Center for Teaching and Learning: Active Learning Classrooms <https://poorvuecenter.yale.edu/faculty-resources/managing-classroom/active-learning-classrooms>