

UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

**Chemistry Laboratory and Demonstration
Equipment Grant Proposal**

Title

Ryan Simon

Name of Submitter
(Faculty or Staff Only)

Department of Chemistry

Organization

A. Purpose of Grant and Impact to Student Body as a Whole

The purpose of the grant is to acquire a GoPro Hero4 Black HD camera(\$449.00, Amazon)and its accessories(\$76.64 total, Amazon) for use by the faculty and staff of the Chemistry Department. This equipment will be used by instructors to enrich the education of chemistry, biology, pre-pharmacy, and nursing majors every semester and will serve as a method of increasing the number of future science majors by providing a valuable tool for outreach.

Many times during the year, chemistry instructors and students are asked to perform chemical demonstrations at a variety of places. The students, as well as the instructors, are trained to perform these scientific demonstrations in such a manner that they are safe as well as educational. The camera would be used to film all of the demonstrations that are performed to allow for better training of future instructors and students as well as provide an outreach tool for prospective students that could not attend the live demonstrations. The camera will be used to provide demonstration videos to well over 500 students a year.

Each semester, over 500 students take the general and organic chemistry laboratories in Montgomery Hall. They are coming from different educational backgrounds and many are lacking basic laboratory skills. One of the uses of the camera would be to do simple laboratory procedures and post them to the class's Moodle page before the actual laboratory. This would give the students a visual of what to expect in the laboratory and hopefully improve their skills when they actually perform the lab.

The last planned use of the camera would be to provide means for instructors to enrich both traditional face to face classes as well as online classes by providing a better way for instructors to film short educational videos covering topics in chemistry. Every semester, over 1200 students take traditional face to face classes in general and organic chemistry. Another 300 students take online classes in nursing chemistry as well as general chemistry. Short videos would allow instructors to help students outside of normal class time and office hours and provide another way for students to absorb material.

If the funds are approved, the camera will be housed in the main office of Montgomery Hall, Room 202. Faculty will check it out from the department, and the faculty of the department will maintain it. Software for the camera will be installed on the computers in the Student Lounge as well as the work computers of the faculty.

B. Projected Lifetime of Enhancement

The projected lifetime of the instrument requested is over five years.

C. Person(s) Responsible for:

Implementation: Ryan Simon

Installation: Ryan Simon

Maintenance: Routine maintenance covered by the Department of Chemistry

Operation: Faculty of the Department of Chemistry

Training: Faculty of the Department of Chemistry

Budget Proposal

1.	Equipment	\$ 501.64
	GoPro Hero4 Black camera \$449.00	
	Wasabi Power Battery (2-pack) and dual charger \$19.97	
	SanDisk Extreme 64GB MicroSDXC Card \$29.68	
	Erilgpowht Accessories Bundle Kit for GoPro \$26.99	
2.	Software	\$ 0
	Software requirements will be provided by the department	
3.	Supplies	\$ 0
	No supplies will be necessary	
4.	Maintenance	\$ 0
	No maintenance will be necessary	
5.	Personnel	\$ 0
	No additional personnel required	
6.	Other	\$ 0
	None	

TOTAL: **\$ 501.64**

Other Relevant Information

None

Previous STEP projects

Ryan Simon has previous funding for Organic Chemistry Laboratory Equipment in the January 2016 round of STEP Grant Proposals