

Application Number	M32
Grant Amount	\$4,550
Applicant	Dr. Sarah Tesar
Email	stesar@highlands.edu
Institution	Georgia Highlands College
Team Members	Dr. Allen Easton, aeaston@highlands.edu Ms. Erin Kingston, ekingsto@highlands.edu
Works Being Revised	Principles of Chemistry LibGuide http://getlibraryhelp.highlands.edu/c.php?g=722488
Final Semester	Fall 2018
Grant Amount	\$4,550
Description	<p>As part of an ALG Textbook Transformation Grant (Round 8 #304), GHC chemistry faculty created several ancillary materials that are currently available to students in CHEM 1211K: Principles of Chemistry I and CHEM 1212K: Principles of Chemistry II lecture and laboratory courses. Newly created materials include lecture notes to accompany the OpenStax textbook, chapter checklists to help students stay on track, and approximately 90 instructional videos on fundamental lecture and laboratory concepts of the general chemistry sequence. To provide students with easy access to all course content, the Principles of Chemistry LibGuide houses ancillary materials, resources, and relevant links on one website. We aim to revise and create additional ancillary materials for CHEM 1211K and CHEM 1212K, and update the Principles of Chemistry LibGuide.</p> <p>The goals of this project are:</p> <ol style="list-style-type: none"> (1) Increase accessibility to our instructional video content by the addition of closed-captions. Closed-captioning is difficult to do automatically in software due to the technical nature of the content. We plan to manually closed-caption our instructional videos to ensure accuracy and accessibility for all students. (2) Create ancillary materials including instructional videos and tutorials reviewing basic algebra concepts necessary for the successful completion of the general chemistry sequence. Incoming students at GHC have varying levels of algebra skills depending on their academic background. While some students are proficient in basic algebra, many can benefit from an algebra refresher. It is our aim to provide students with resources that review the relevant algebra concepts needed for success in chemistry. (3) Create practice problems sets to aid students in exam preparation. The primary method of mastering chemistry concepts is to practice solving problems on a regular basis. Many students request additional practice problems or study guides, and would benefit from a finite set of problems readily available on the course LibGuide. We will create a set of practice problems and answers aligned with each OpenStax chapter covered in the general chemistry sequence (1-17) to give students a bar by which to measure their problem solving ability. (4) Create additional instructional videos based on student feedback. Surveys conducted during the final semester of instruction for ALG Round 8 #304 revealed that 96% of CHEM 1211K and 88% of CHEM 1212K students surveyed found the instructional videos at least somewhat helpful. Furthermore, students commented they wished there were more

instructional videos available. We will create additional CHEM 1211K and CHEM 1212K instructional videos to ensure our library is comprehensive.

Timeline

Personnel

Dr. Sarah Tesar: Lead the project. Create ancillary materials reviewing basic algebra concepts for CHEM 1212K, closed-captioning instructional videos.

Dr. Allen Easton: Create problem sets and answers for CHEM 1211K and CHEM 1212K, create additional instructional videos to add to our current library

Ms. Erin Kingston: Create ancillary materials reviewing basic algebra concepts for CHEM 1211K, closed-captioning instructional videos.

Timeline/Completion Date

Spring 2018: Create problem sets and answers

Summer 2018: Create ancillary materials reviewing basic algebra concepts for CHEM 1211K and CHEM 1212K

Fall 2018: Create additional instructional videos, closed-caption all video content.

The Principles of Chemistry LibGuide will be updated as new materials are created.

Budget

Dr. Sarah Tesar, \$1250. Release time to create ancillary materials and closed-captioning.
Dr. Allen Easton, \$1250. Release time to create ancillary materials.
Ms. Erin Kingston, \$1250. Release time to create ancillary materials and closed-captioning.
Supplies, \$800. (1) iPad Pro 10.5 inch for recording instructional screencasts, \$649-\$699 (1) Apple Pencil for iPad Pro, \$99 (1) Explain Everything software license, \$10.
Grand Total: \$4550