

Affordable Learning Georgia Affordable Materials Grants Continuous Improvement Grants Final Report

(or Mini-Grants, for R17 and earlier)

General Information

Date: January 1, 2021-December 31, 2021

Grant Round: 18

Grant Number: M147

Institution Name(s): Abraham Baldwin Agricultural College

Team Members (Name, Title, Department, Institutions if different, and email address for each): Dr. Laura Clark Hunt (Librarian and Project Investigator), University of Southern Mississippi, laura.clarkhunt@usm.edu

Dr. Andrew McIntosh (Biology Faculty Member), Abraham Baldwin Agricultural College, amcintosh@abac.edu

Dr. Kennon Deal (Chemistry Faculty Member), Abraham Baldwin Agricultural College, kdeal@abac.edu

Dr. Janet Kopusko (Psychology Faculty Member), Abraham Baldwin Agricultural College, jkoposko@abac.edu

Dr. Vanessa Lane (Forest Resources Faculty Member), Abraham Baldwin Agricultural College, vlane@abac.edu

Project Lead: Dr. Laura Clark Hunt

Course Name(s) and Course Numbers:

RCDV 4990 – (Spring 2021) Rural Community Development Senior Capstone Seminar

FRSC 4630 – Capstone in Natural Resources Management

CHEM 4305 (Spring 2021) Instrumental Chemistry

BIOL 4891 Fall 2021 – Research into Vertebrate Evolution

Final Semester of Project: Fall 2021

If applicable to your project:

Average Number of Students Per Course Section: *The courses are listed below with specific details on enrollment.*

FRSC 4630: Senior Project in Natural Resources Management, spring 2020 enrollment was 12, and in spring 2019 there were 17 students. The Natural Resources Management program course entitled Senior Project (FRSC 4630) was a capstone course (Spring 2021) that requires Forestry Tract students to write a

comprehensive timber management plan for a private landowner to meet Society of American Foresters certification requirements, and Wildlife and Conservation Law Enforcement Tract students to develop and implement an undergraduate research project on a topic of their choosing. The final product in both situations was a comprehensive report which cites field-specific authorities, including professional societies and peer-reviewed journal articles. As such, information literacy was a key component of the course. This course had 13 students produce senior projects.

CHEM 4305 Instrumental Chemistry: Instrumental Chemistry is a pure chemistry class that focuses on the technologies associated with analytical chemistry which has been used to determine what is in a sample and how much of it is there. The technologies that have been developed and used are anywhere from 70 years old to relatively new (the past 10 years). During the course, we focus on the history and science used to develop these technologies. The proposal was to have the students create a poster presentation as well as write a research paper on a technology of their interest and present the theory, background, development, and uses of the technology today. Course had 2 students participate in the spring 2021 class.

BIOL 4891 Fall 2021 – Research into Vertebrate Evolution: This course will immerse students in a Classroom based Undergraduate Research Experience (CURE)., Specifically, it teaches students to think like a research scientist and entails conducting undergraduate research in evolutionary morphology, vertebrate evolution and paleontology. This course averages 9 students a semester. This year the course had 8 students.

RESM 3065: Community Research Methods (Spring 2021)-was designed for students in their senior year. The design focus was on carry out a comprehensive research project that examines contemporary issues affecting rural societies and/or rural communities' abilities to address forces that impact community viability and well-being. This was an interdisciplinary course that had 15 students enrolled.

Total Number of Students Affected by Implementation of Revised Resources: 45 students for fall 2021

1. Project Narrative

RESM 3065 – (Spring 2021) Community Research Methods developed new activities for class that focused on information literacy. Many of the research projects were interdisciplinary in nature. Application of the framework for Research as Inquiry required activities that were flexible and could be applied to different fields of study.

RSC 4630 – Capstone in Natural Resources Management developed written procedures for many of the assignments currently being executed in the course already. Many of these handouts provided an in-depth understanding of how information is applied the field.

CHEM 4305 (Spring 2021) Instrumental Chemistry included a poster presentation that demonstrated how chemistry students must learn how to build on the current research.

BIOL 4891 Fall 2021 – Research into Vertebrate Evolution developed activities and addressed topics on information that included data and publications.

Timeline

Dr. Laura Clark Hunt

November 2020: IRB Submission to ABAC's IRB Committee. Dr. Laura Clark Hunt

December 2020: Kickoff Meeting to discuss timeline, goals, and objectives for the project. Dr. Laura Clark Hunt

January 2021: Faculty members will answer the questions in the project goals for their capstone courses and include activities used to address information literacy ACRL frame number 3. The librarian will work one-on-one with each faculty member to help clarify the ACRL frame for information literacy.

Spring 2021/Fall 2021: The faculty members will be meet at least two times with the librarian on how they are implementing activities into their capstone course to provide critical insight on discipline specific information literacy knowledge to students. Due to the course individuality, each faculty member will provide their own timeline.

May 2021/December 2021: Qualitative measures will be gathered from faculty. Dr. Laura Clark Hunt

July 2021: Status report submitted. Entire Team will help submit.

December 2021: Team will submit full status report of findings for the capstone course. This will include impact, improvements, and next steps. LibGuide creation to support the discipline specific information literacy General Education findings and activities. Dr. Laura Clark Hunt

December 2021: Final Status Report and Open Education Resources will be submitted to GALILEO with the help of the ABAC Libraries. Dr. Laura Clark Hunt

Dr. Janet Kopusko

RSC 4630 – (Spring 2021) Community Research Methods

December 2020: Dr. Kopusko will meet with Dr. Clark to discuss and help clarify the ACRL framework that will be used for all activities

December 2020 – January 2021 (holiday break): Dr. Kopusko will develop activities for: Scholarship as conversation, Authority is constructed and contextual, Research as inquiry, Information creation as a process, Information has value, Searching as strategic exploration, and Additional discussion questions

Early January 2021 – Dr. Kopusko will implement activity in class for scholarship as conversation

Late January 2021 – Dr. Kopusko will implement activities in class for authority is constructed and contextual and research as inquiry; Dr. Kopusko will meet with Dr. Clark to discuss how the

implementation of the first three activities went and develop a plan to address any issues for implementing the remaining activities

Early February 2021 – Dr. Kopusko will implement activity in class for information created as a process

Late February 2021 – Dr. Kopusko will implement activity in class for information has value

Early March 2021 – Dr. Kopusko will implement activity in class for searching as a strategic exploration

Late March 2021 – Dr. Kopusko will implement activity in class for additional discussions

Dr. Vanessa Lane

FRSC 4630 – Capstone in Natural Resources Management

Below is the planned timeline of information literacy specific modules in the course, with the understanding that the comprehensive reports are reviewed and edited by Dr. Lane throughout the semester to ensure subject standards and class expectations are met.

December 2020: Dr. Lane will meet with Dr. Clark to discuss and help clarify the ACRL framework that will be used for all activities.

January 2021: Dr. Lane will introduce and establish expectations for acceptable information authorities. This will include an on-campus field trip to the ABAC Baldwin Library for a tour of the facilities and an explanation of the informational tools available to students. Dr. Lane will also have discussions on research as scientific inquiry and the value of accurate information. Wildlife and Conservation Law students will be developing research hypotheses and study methodology during this time period, while forestry students will choose their clients and identify client expectations and management objectives through personal interviews. Forestry students will also determine sampling methodology at this time, which was dependent upon property and standing timber characteristics of their assigned properties.

February 2021: First drafts of the introductions and methodologies of student comprehensive reports are due to their faculty advisors. This was the first evaluation and critique of writing style and information literacy following the topics covered in January. Students are actively collecting data in the field during this month. Weekly meetings ensure students are making adequate progress and allow for advice for any challenges or problems that arise.

March 2021: Dr. Lane evaluates comprehensive first drafts following initial editorial comments received by faculty advisors. The quality of informational sources will be assessed and gaps in gathered knowledge will be identified, particularly for research/landowner objective justifications and employed methodologies. Full drafts of comprehensive reports are due to their faculty advisors at the end of the month. Faculty advisors review the documents prior to

submission to Dr. Lane, to allow the students to edit and modify their papers before receiving a grade.

April 2021: Final products are due. The final products will be assessed for quality and comprehensiveness, including the use of information literacy to justify and explain results. Students will be presenting their projects in front of their peers and faculty and staff, as well as participate in the Undergraduate Research Symposium on campus to professional present the results of their work. Dr. Lane will assess their comprehension and synthesis of information literacy in the context of their final report utility to advancing scientific knowledge and/or meeting landowner objectives

Dr. Kennon Deal

CHEM 4305 (Spring 2021) Instrumental Chemistry

Instrumental Chemistry was a pure chemistry class that focuses on the technologies associated with analytical chemistry which was used to determine what was in a sample and how much of it was there. The technologies that have been developed and used are anywhere from 70 years old to relatively new (the past 10 years). During the course, we focus on the history and science used to develop these technologies. The proposal was to have the students create a poster presentation as well as write a research paper on a technology of their interest and present the theory, background, development, and uses of the technology today.

December 2020: Dr. Deal will meet with Dr. Clark to discuss and help clarify the ACRL framework that will be used for all activities.

December 2020 – January 2021 (holiday break): Dr. Deal will develop activities for: Scholarship as conversation, Authority is constructed and contextual, Research as inquiry, Information creation as a process, Information has value, Searching as strategic exploration, and Additional discussion questions as they pertain to Instrumental Chemistry.

Mid-January 2021: Dr. Deal will take students to Baldwin Library to introduce them to the people and resources available to them.

Late-January 2021: Dr. Deal will require students to have their topic chosen and we will begin working towards a poster and paper through a step by step process.

Early February 2021 – Dr. Deal will implement activity in class for information created as a process.

Late February 2021 – Dr. Deal will implement activity in class for information has value

Early March 2021 – Dr. Deal will implement activity in class for searching as a strategic exploration.

Late March 2021 – Dr. Deal will implement activity in class for additional discussions

Dr. Andrew McIntosh

Timeline for BIOL 4891 Fall 2021 – Research into Vertebrate Evolution

This course will immerse students in a Classroom based Undergraduate Research Experience (CURE)., Specifically, it teaches students to think like a research scientist and entails conducting undergraduate research in evolutionary morphology, vertebrate evolution and paleontology

May 2021: Dr. McIntosh will meet with Dr. Clark to discuss and help clarify the ACRL framework that will be used for all activities

June 2021 – July 2021 Dr. McIntosh will develop activities for: Scholarship as conversation, Authority is constructed and contextual, Research as inquiry, Information creation as a process, Information has value, Searching as strategic exploration, and Additional discussion questions

Mid-August 2021 – Dr. McIntosh will implement activity in class for scholarship as conversation

Late August 2021 – Dr. McIntosh will implement activities in class for Authority is Constructed and Contextual

Early September 2021 – Dr. McIntosh will implement activities in class for research as inquiry

Mid September 2021 – Dr. McIntosh will implement activity in class for information created as a process

Late September 2021 – Dr. McIntosh will implement activity in class for information has value

Mid October 2021 – Dr. McIntosh will implement activity in class for searching as a strategic exploration

Early October 2021 – Dr. McIntosh will implement activity in class for additional discussions

- *The timeline above was followed throughout the grant.*
- *The original work was created, but it built on the following work <https://oer.galileo.usg.edu/infolit-collections/1/>*
- *Members of the project met monthly to share about their progress and activity ideas. The last major meeting was held in August. Most chapters were turned in by August. McIntosh was the last faculty member to turn in his chapter.*
- *Lessons learned from this project were about faculty interaction and the issues each discipline is facing with information literacy. Chemistry has extensive information available in publications, but this has been partly driven by the nature of how chemistry has been taught, and students build on past research. Biology has an*

extensive issue with data sharing. As members of this community try to build on past data, it is important that these points of collection are seamless. The field of land management has been extremely void of published articles on information literacy. There is a great need for more research to be published in this area. Lastly, the field of psychology has many theories that are used in interdisciplinary studies. However, many times the research questions are not formulated correctly. Also, the faculty member in psychology noted the use of information literacy in research can be difficult and there was a lot to learn.

Materials Description

Materials created were 5 chapters and they are as follows:

Chapter 1: Introduction to Research as Inquiry as Framed by the Association of College & Research Libraries on Information Literacy

This chapter is an overview of the project, and the important role information literacy plays in an academic setting. The chapter address barriers to information literacy are colleges, and where improvements can be made. The chapter also provides structure for how the American Library Association notes different fields of study should address information literacy.

Chapter 2: Information Literacy for Research in Biology

This chapter provides specific information literacy insight into the field of biology. The content includes areas for improvement. The chapter also provides activities that are easily applied to information literacy curriculum.

Chapter 3: Research as Inquiry for Natural Resources Management

Chapter 3 is a practical guide to information literacy in land management. While this field lacks in published research for information literacy, there is considerable tacit application of information literacy throughout the program and curriculum. The final project for all students in this program is a comprehensive study that demonstrates all aspects of Research as Inquiry.

Chapter 4: Information Literacy in Chemistry

This chapter provides a personal perspective of how chemistry has evolved into an extensive research related program. The activity in this chapter is a focus on posters that are created to demonstrate the extensive research for chemistry students. The personal nature of this chapter allows for a comprehensive overview of how chemistry has already developed a structure for implementing information literacy into the curriculum.

Chapter 5: Describing the Research As Inquiry Frame of Information Literacy in The Social Sciences

This chapter examines publishing and research applications for those in psychology. Many tacit aspects that the community of practice does not always reveal to other disciplines is spelled out in this chapter. The chapter also demonstrates best practice in research question development based on the type of psychology theory applied.

The PI applied the following Creative Commons License



2. Materials Links

The materials maybe hosted with the University of Southern Mississippi at a later date and on PI's personal website lauraclarkhunt.com. Formats will be different for the USG version in order to better represent formatting for the specific disciplines.

3. Future Plans

- *Future plans include presenting at the Open Education Conference 2021 with one of the faculty members who participated in the grant.*
- *Presented information in a poster at the University of Southern Mississippi, Research Symposium*
- *Present information at the Georgia International Conference on Information Literacy <https://academics.georgiasouthern.edu/ce/conferences/infolit/>*
- *Qualitative data was collected from all the faculty members that were part of the grant. This data will serve a publication in 2022 in the Journal Academic Librarianship.*