

ENST 3784 - Research Experience in Environmental Science

Fall 2026 Syllabus, Section 02, CRN 42808,

Credit hours: 4

Instructor

Felicia Armstrong

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Public Instructor Information

Instructor Title: Professor

Instructor Professional Qualifications: PhD (Environmental) Soil Science, Oklahoma State University, 2003; MS, Plant & Soil Science, Alabama A&M University, 1996; BS, Biology, University of Dayton, 1987

Qualified Environmental Professional (QEP), 2015, Board for Global EHS Credentialing (BGC)

Instructor Office Location: 2120 Moser Hall

Instructor Office Phone: 330-941-1385 or 330-941-3612

Course Description

3784. Research Experience in Environmental Science. This capstone course will give student the experience in the planning and execution of a research project. Graduate schools and research establishments consider an undergraduate student research experience as extremely valuable. Research provides students with an opportunity to work with faculty and graduate students on more advance research topics. Research furthers our knowledge of basic environmental science and helps us find solutions to environmental problems. The process improves student skills in gathering data, brainstorming ideas, evaluating data, and discussing the results to others through written and oral presentations. Environmental research can be focused on fieldwork, computer simulation, or laboratory analysis. Course open to Junior or Seniors majoring in Environmental Science. Prereq.: C or better in ENST 3751 and ENST 3751L or ENST 3752 or ENST 4851 and ENST 4851L. 4 s.h.

Course Readings

Group	Title	Author	ISBN
No textbook required			

Course readings will be based on the research project and may include journal articles, government documents (state and/or federal), textbooks, other research sources.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Tentative Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24		Review Syllabus and deadlines/ expectations, Lab Safety Reference searching, Annotated References, Proper citation Finalize Reserch Topic	Need Laptop
8/31		Developing a Hypothesis Methodology & Planning Identify special equipment, supplies, etc. Research timeline/plan	Need Laptop Lab Safety Due Sept 4
9/7		Writing Introduction and Literature Review Microsoft Word workshop	Annotated References due Sept. 10

9/14		Prepare for Research: Material & supply inventory, Sampling location verification	Draft Proposal Due Sept. 15
9/21		Start Sampling/experimental set up	
9/28		Sampling and logging data Using Excel workshop	
10/5		Statistics review Sampling and logging data for your research	
10/12		Using SPSS for basic statistics Sampling and logging data for your research	WMAO Abstracts due Oct. 16, 2026
10/19		Sampling and logging data for your research	
10/26		Sampling and logging data for your research	
11/2		Final data acquisition	Draft poster due if attending WMAO
11/9		Report review	Final poster printing (if applicable)
11/16	Water Management Association of Ohio Annual Meeting Nov. 17-18	Displaying data Presentation layout and design	Westminster Environmental Symposium Abstracts Usually Due Nov. 14-20
11/23		Review / Finalize data	Draft poster for Westminster Environmental Symposium Due Nov. 23
11/30		Practice presentations – peer review	Westminster Environmental Symposium Thursday, Dec. 3, 5 to 9:30 pm Final poster printing (if applicable) Final report Due Dec. 4 (Dec. grads)* Final presentation due Dec. 4 (Dec. grads)
12/7	Finals Week	Graduating Seniors Presentations: Tuesday Dec. 8, 3:15 pm	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.