

Elizabeth Shay Carter

SCIENCE INSTRUCTOR, LEARNING TECHNOLOGIST, AND AUTHOR

Objective

Driven college educator and accomplished writer with a passion for research and data science. Seeking a career path that merges my extensive background in science, education, and writing with a focus on gamification and data-driven research.

Education

2023 - current	University of North Texas PhD Learning Technologies
	Emphasis in gamification and data science.
2015 - 2016	University of Maryland Master of Chemical and Life Sciences
	Emphasis in Organic and Biological Chemistry
2004 - 2007	University of Tennessee 66 graduate hours in biological science ABD
1999 - 2002	Christian Brothers University Bachelor of Science in Biological Science Minor in Chemistry

Research experience

2004-2007	University of Tennessee, Memphis, TN Graduate Research Assistant Pharmaceutical Cancer Research Principle Investigator: Len Lothstein
	<ul style="list-style-type: none"> • Sterile Mammalian Cell Culture • Western Blotting • MTT Assays • Flow cytometry • Fluorescent Microscopy • General Microscopy • Drug Translocation Assays • Proteomic Analysis including MALDI-TOF spectroscopy • Experiment Planning • Data Analysis
2003 - 2004	Environmental Testing and Consulting Memphis, TN

Semi-volatile Analyst

- Preparing and analyzing soil and wastewater samples
- Gas chromatography with electron capture detectors for organic, semi-volatile contaminants such as organochlorine pesticides, herbicides and hydrocarbon fuels and solvents.

2003 - 2003

Eurofins Scientific Memphis, TN

Microbiologist

- Working in a "clean room" environment,
- Sterile technique
- Microbial culture, plating, serial dilution, and microscopy.
- At this job, I did not have a direct supervisor and it allowed me to hone my skills of independent task and time management, as well as extreme attention to detail and professional integrity.

Teaching experience

2016 - Current

Northwest Mississippi Community College Senatobia, MS
Instructor Department of Natural Sciences

- Taught biology, general chemistry, physical science, and organic chemistry courses and labs.
- Developed quizzes, exams, and homework
- Revised the syllabus to meet accreditation standards
- (2017-2021) Physical Science chair, managing 8 instructors and several labs.
- Designed, built, and taught well aligned synchronous and asynchronous online courses for all the courses taught.

Courses Taught

Principles of Biology I and II, Lecture and Lab (non-majors)
General Chemistry I and II, Lecture and Lab (majors)
Organic Chemistry I and II, Lecture (majors)
Physical Science I and II, Lecture (non-majors)
Environmental Science Lecture

Publications

Textbook

2023 Carter S. Beiser A. Krauskopf, K. The Physical Universe. McGraw-Hill,

Peer Reviewed Journal publications

2008 Barham, W., Cook, C., Savranskaya, M., Carter, S., Sweatman, T., & Lothstein, L. (2008). Competitive C1b domain-binding compounds produce differing effects in human tumor cells based upon structural variations in the non-C1b binding portions of the compounds. *Cancer Research*, 68(9_Supplement), 3312.

2002 Carter, Shay and Len Lothstein. 2002. "The Role of PKC-delta in Cellular Resistance to AD 445." *Journal of the Tennessee Academy of Science*

Professional training

2020-2023

**Certification in Effective College Instruction
Association of College and University Educators (ACUE)**

Faculty credentialed by ACUE have demonstrated comprehensive knowledge and skills across all of the core teaching competencies defined in ACUE's effective practice framework

2021

**Applying the QM Rubric
Quality Matters (QM)**

Instructional designers learn the underlying principles behind the QM Rubric and the critical elements of the QM quality assurance process. Learn about drafting helpful recommendations as you apply the Rubric to an actual course.

Professional affiliations

2016 - current

American Chemical Society

Computer skills

Programming

Basic Python, Basic R, Basic HTML (currently working on improving proficiency in all three)

Applications

Microsoft Office (including excel), Google Drive and more.

Platforms

Canvas and others

Professional Skills

Communication

Public Speaking, Writing, Natural Teacher, Building Charts and Graphs, Statistics Analysis, Strong Interpersonal Skills,

Scored in the 91st percentile on the writing portion of the GRE

Personal

Detailed, Resourceful, Organized, Technically Proficient, Creative, Driven, Flexible, Strong Mental Acuity, Self-starter

Virtues

Honest, Trustworthy, Compassionate, Hard-working