

Holly E. Wallace

A. Professional Preparation

INSTITUTION	DISCIPLINE	DEGREE	YEAR
University of West Georgia	Chemistry	B.S.	2011
University of Arkansas	Organic Chemistry	M.S.	2018

B. Appointments

POSITION	INSTITUTION	PERIOD
Lab Coordinator	Mercer University	Aug 2018 – May 2019
Chemistry Lecturer	University of West Georgia	Aug 2019 – Present

C. Classes Taught

COURSE NUMBER	YEARS TAUGHT	COURSE DESCRIPTION
CHEM 1211L	2019 - 2025	Accompanying laboratory course for Principles of Chemistry I; covers basic techniques and principles of heat, matter, and reactivity.; Core Area D class
CHEM 1211	2019 - 2025	First course in a two-semester sequence covering the fundamental principles and applications of chemistry for science majors. Topics to be covered include composition of matter, stoichiometry, periodic relations, and nomenclature. Core Area D class
CHEM 1212L	2021	Accompanying laboratory course for Principles of Chemistry II; covers experiments involving kinetics, equilibria, and phase changes; Core Area D class
CHEM 2455	2019 - 2023	Comprehensive one semester course that emphasizes those aspects of organic chemistry that are relevant to the study of biology. Whenever possible, correlations to biological molecules, medicine and disease will be made. Will cover fundamentals of contemporary organic chemistry including electronic structure, stereochemistry, and reactions of carbonyl and carboxylic acid derivatives. This

one semester course will adequately prepare students for biochemistry courses.

CHEM 2455L	2021 - 2023	The purpose of this course is to apply the knowledge obtained in Principles of Organic Chemistry lecture to problem solving in the laboratory. Students will develop good laboratory techniques, including: isolate and purify organic substances, characterize substances prepared by physical means, correlate the physical properties of organic substances with their molecular structure, work safely, take data carefully, record relevant observation, use time effectively, and assess the efficiency of experimental methods.
CHEM 3422L	2023, 2024	Emphasis of this laboratory will be on synthesis and characterization of organic substances.
CHEM 1152	2025	Second course in a two-semester sequence covering elementary principles of chemistry of general, organic and biochemistry for allied health professions majors.
CHEM 1152L	2024, 2025	Laboratory exercises supplement the lecture material of CHEM 1152.
CHEM 1151	2024	First course in a two-semester sequence covering elementary principles of general, organic, and biochemistry for allied health professions and non-science majors. Topics to be covered include: elements and compounds, chemical equations, acid-base chemistry, and equilibrium chemistry.
CHEM 1151L	2024	Laboratory activities based on the course material in CHEM 1151. Course will emphasize basic laboratory and measurement techniques and will include experiments involving physical properties such as solubility, chemical properties and reactions, and acid-based investigations.
XIDS 2002	2020, 2021	Selected topics and themes posing a question addressed using the tools and assumptions of a variety of disciplines.

D. Grants

2024: **Tech Fee** – “Incorporation of Labquest Data Measurement System by Vernier into Introductory and Analytical Chemistry Courses”; \$36,637

E. Synergistic Activities

1. Co-chair of Chemistry Scholarship Committee, 2023 – 2025
2. West Georgia Regional Science and Engineering Fair, Scientific Review Committee Member and Judge, University of West Georgia, 2019
3. Mentored Dr. Spencer Slattery and Dr. John Hansen with online teaching during COVID-19 pandemic, 2020
4. Faculty co-advisor for a UWG Chemistry major on ACS-certified and General Degree Track, 2024
5. Helped Dr. Spencer Slattery service the NMR during COVID-19 pandemic by filling it with liquid nitrogen, 2020
6. Mentored Workshop leaders via weekly meetings to help prepare the student to teach their workshop, 2019 – Present
7. Mentored Lab Teaching Assistants for 1211L, 1151L, 1152L, 3422L, and 2455L, 2019 – Present
8. Mentored faculty with Vernier LabQuest data collection equipment and software, 2024 – present
9. Committee member for limited term instructor Search Committee, June 2025
10. Assisted Ms. Dusty Otwell with lab preparation during absences, 2019 – present
11. Presented at the campus wide “1st Annual Nobel Prize Panel” on the Chemistry Nobel prize winners of 2021 (Dr. Benjamin List and Dr. David MacMillan), Fall 2022
12. Co-presented a demo show with Dr. Spencer Slattery for the West Georgia Regional Science & Engineering Fair, Spring 2024
13. Co-presented a demo show with Dr. Spencer Slattery for the West Georgia Regional Science & Engineering Fair, Spring 2025
14. Co-presented the “Chemistry in The Kitchen” demo show with Dr. Sharmistha Basu-Dutt, Fall 2024
15. Co-presented the “Chemistry in The Kitchen” TONS demo show with Dr. Sharmistha Basu-Dutt, Spring 2024

16. Attended and walked in procession for the Spring 2023 and Spring 2024 graduation processions on behalf of the chemistry program
17. Attended the Spring 2025 graduation on behalf of the chemistry program
18. Attended booth for Fall 2024 Showcase with Dr. John Hansen and Dr. Spencer Slattery
19. Co-Supervised chemistry student in a demo show at Bowdon Middle School, Spring 2025

F. Research Collaborations

1. Undergraduate Students Advised in Faculty-Directed Research with Dr. Farooq Khan:
 - Advisees that Completed Thesis for ACS-Track B.S. Degree: Payton Rogers (2023-2024)
2. Collaborated with UWG alumni Dr. Christopher Crittenden, employee of Genentech in San Francisco, on the synthesis and characterization of Cucurbituril-7.

G. Professional Organizations

1. Member of American Chemical Society (ACS)
2. Member of National Science Teachers Association (NSTA)
3. Member of Georgia Science Teachers Association (GSTA)