

Department of Chemistry
Box 9573
Mississippi State University
Mississippi State, MS 39762-9573
Work: (662) 325-4568
wlw99@msstate.edu

Whitnee Nettles

EDUCATION

Doctor of Philosophy in Chemistry **Aug. 2011-Dec. 2016**

Emphasis in Bioinorganic Chemistry

Dissertation Title: Copper coordination with protein, peptides, and small molecules

Dissertation Director: Joseph Emerson, Ph.D.

Mississippi State University, MS.

Bachelor of Science in Chemistry **Aug. 2008-May 2011**

Mississippi State University, MS

Bachelor of Science in Secondary Education **Aug. 2008-May 2011**

Mississippi State University, MS

PUBLICATIONS

1. **Nettles, W.**; Song, H.; Farquhar, E.; Fitzkee, N. C.; Emerson, J. P., Characterization of the Copper (II) binding sites in human carbonic anhydrase II. *Inorganic Chemistry*, **2015**, 54 (12), 5671-5680.

PRESENTATIONS

- **Nettles, W. L.**; Song, H. B.; Martin, A. E.; Wilson, D. L.; Farquhar, E. R.; Fitzkee, N. C.; Emerson, J. P. "Characterization of the copper (II) binding sites in human carbonic anhydrase II." Oral Presentation at the 66th Southeastern Regional Meeting of the American Chemical Society, Nashville, TN, October 16-19, 2014.
- **Nettles, W.**; Martin, A.; Kennon, W.; Emerson, J. "Probing the second high affinity binding site in human carbonic anhydrase II" Poster Presentation at the 27th Annual Gibbs Conference on Biothermodynamics, Carbondale, IL, October 5-8, 2013
- **Simmons, W. L.**; Wilson, D.; Emerson, J. P. "Probing the reactivity of a noncoupled dicopper center in Cu (II)-substituted carbonic anhydrase" Poster Presentation at the 245th American Chemical Society National Meeting & Exposition, New Orleans, LA, April 7-11, 2013.

Volunteer/Community Service

2014-2015 Columbus-Lowndes Public Library: Assisted with teen (young adult) chemical education programs. Planned and performed chemical demonstrations to inspire students to consider scientific career paths.

AWARDS

2007 Outstanding Chemistry Student Award (East Central Community College)

2011 Outstanding General Chemistry Tutor (Mississippi State University)

TEACHING AND LABORATORY EXPERIENCE

Lab Coordinator and Supervisor

- *Mississippi State University*
General Chemistry Lab Coordinator Jan. 2016-Current
- *Mississippi State University*
General Chemistry Assistant Lab Coordinator Aug. 2015-Dec. 2015

Teaching Assistant and Laboratory Instructor:

- *Mississippi State University, Mississippi State, Mississippi*
CH 1211 Chemistry I Laboratory Aug. 2011-Dec. 2011
CH 2241 Integrated Chemistry I Laboratory Jan. 2012-May 2015

Teaching labs included: Presented a 15-20 minute lecture over background, procedure and safety, attend weekly meetings to prepare the next experiment, met with the lab coordinator to adjust the procedure as needed, supervised 10-22 students during the experiment to ensure safety procedures were followed, graded lab reports, quizzes, homework and posted grades.

Assistant Lab Coordinator included: Overview of general chemistry teaching assistant notes. Preparation and distribution of student quizzes for all general chemistry labs prior lab. Development of answer keys and rubric for quizzes, reports, and homework assignments. Development of general chemistry course syllabi. Development of teaching assistants' responsibilities. Evaluate teaching assistants during the first thirty minutes of their lecture. Monitored grade input on MyCourses. Acted as the first response to problems in the laboratory. Walked through the laboratories, monitoring all safety requirements. Attended Friday teaching assistant meeting, and made sure solutions were prepped for the teaching assistant weekly meeting. Prepared incoming graduate student schedule during orientation week for How to Teach workshop and teaching assistant requirements. Organized the prepped solutions stock room and created an up-to-date chemical inventory. Assisted teaching assistants with questions about their labs, homework assignments, lab report assignments, daily issues, and student issues. Developed procedures for manual that included Vernier equipment.

Lab Coordinator included: Same requirements as assistant lab coordinator with the following additions: Entering final grades, tracking and changing manual changes throughout the semester, development of new labs to include Vernier equipment. Uploading relevant announcements and documents to online pages as well as monitoring grade input. Listen and address all student issues. Run Friday teaching assistant meeting. Assign locks and combinations to teaching assistants. Ensure proper equipment maintenance. Create typed manual answer keys. Keep track of safety and PPE contracts with students. Inventory glassware and placement.

- *Mississippi State University General Chemistry I Lecture* June-July 2014
- *Mississippi State University General Chemistry I Lecture* Jan.-May 2017
- *Mississippi State University General Chemistry I Lecture* June-July 2017

Lecture synopsis:

June-July 2014 (Graduate Student)

Taught 50% of the General Chemistry I Atom's First course material, under the direct supervision of Dr. Joseph Emerson, the lecturer of record.

January-July 2017

Taught 100% of the General Chemistry I OpenStax course material.

Student Tutor:

- *Department of Chemistry, Mississippi State University, Mississippi State, Mississippi*
For integrated chemistry undergraduates Aug. 2012-Aug. 2015
For all general chemistry undergraduates June 2011-Aug. 2012
- *Chemistry Graduate Student Association, Mississippi State University, Help Session*
For general chemistry I lectures Aug. 2015-Dec. 2015

ADDITIONAL RELEVANT TEACHING EXPERIENCE

- *Student Teaching, Louisville High School* Aug. 2010-Dec. 2010
Responsible for teaching six fifty minute high school chemistry courses daily. I was required to create and follow weekly lesson plans that were to be approved by the school's administration. I created tests and worksheets to evaluate the students of the course.

AFFILIATES

- American Chemical Society 2013-2015
- Chemistry Graduate Student Association (MSU)
Member 2011-2016
Co-head of Chemistry TA Presentation Orientation 2012-2014
Head of TA Recognition Committee 2011-2013
Vice-President 2014-2015