

# OLUWATOBI O. ODELEYE

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West Virginia University, Department of  
Chemistry,  
Morgantown, WV, 26506

## PROFESSIONAL APPOINTMENTS

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### West Virginia University, Morgantown, WV

Assistant Professor, Department of Chemistry 2022 - present

### University of Oklahoma, Norman, OK

Assistant Professor, Department of Chemistry and Biochemistry  
- Director of General Chemistry 2017 - 2022

## EDUCATION

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**PhD** South Dakota State University, Chemistry May 2017  
Dissertation: "The relationship between recollection, knowledge transfer, and student attitudes towards chemistry"  
Advisor, Matt Miller

**MS** Eastern Michigan University, Chemistry Dec 2013  
Thesis: "The relationship between students' definitions of chemistry and the way they view the discipline"  
Advisor: Amy Flanagan Johnson

**BS** Eastern Michigan University, Chemistry May 2011  
Graduated Cum Laude  
Minored in Mathematics

## HONORS AND AWARDS

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**Mixture Modeling Training for Discipline-Based Education Researchers** 2023  
An NSF-funded fellowship

**Association of College and University Educators (ACUE)** 2023  
*Micro-credential in Creating an inclusive and supportive learning environment.*  
West Virginia University

**Center for Faculty Excellence, Faculty Fellow** 2021  
University of Oklahoma

**NSF Quantitative, Computational and Mixed Methodologies Scholar** 2021  
One of 35 selected scholars across the US

<b>First-Year Student Mentoring Program Outstanding Mentor Award</b> University of Oklahoma	2020
<b>Graduate Teaching Certificate of Highest Excellence</b> South Dakota State University	2015
<b>Logue Graduate Student Academic Award</b> South Dakota State University	2014
<b>Graduate Teaching Certificate of Highest Excellence</b> South Dakota State University	2014
<b>EMU Chemistry Department Teaching Assistant Award</b> Eastern Michigan University	2013

## **TEACHING EXPERIENCE**

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### **West Virginia University**

#### Assistant Professor

**CHEM 593A Chemistry Education Methods and Practice** 2024 – present

- Sp24, 7 students

**CHEM 115 (General Chemistry 1)** 2022 – present

- Fa22, 260 students
- Sp23, 120 students

### **University of Oklahoma**

#### Assistant Professor

**CHEM 1305 (Fundamentals of General Chemistry)** 2020 – 2022

- Fa20, 13 students; Sp21, 24 students, Fa21, 15 students

**CHEM 1315 (General Chemistry 1)** 2017 – 2022

- Fa17, 329 students; Sp18, 465 students; Fa18, 548 students; Sp19, 451 students; Fa19, 576 students

**CHEM 1415 (General Chemistry 2)** 2020 – 2022

- Sp20, 421 students, Sp21, 108 students, Fa21, 350 students

**CHEM 5001 (Practicum in Chemical Education – Graduate Course)** 2019 – 2022

- Fa19, 27 students; Fa20, 11 students, Fa21, 22 students

## RESEARCH ASSOCIATES

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### Graduate Students

Diya Tang	Sept 2019 – present
Nghiem Tieu	March 2022 – present
Oluwaseun Agunbiade	Aug 2023 – present
Courtney Glenn	Nov 2022 – May 2024
Makenzie Border	Dec 2022 – May 2024
Shenaly Perera	Sept 2022 – Dec 2023
Anthony Vassalotti	Nov 2022 – May 2023
Leena Nabulsi	Jan 2019 – May 2022
Baylee Lacy	August 2021 – Dec 2021

### Undergraduate Students

Elina Heydari	Jan 2022 – May 2022
Joseph Manfredo	Dec 2021 – May 2022
John Bui	Dec 2020 – Dec 2021
Thomas Deppong	Dec 2020 – May 2021
Parsa Lessani	Dec 2020 – May 2021
Wambui (Anne) Gachunga	Oct 2018 – May 2020
Amy Nguyen	May 2018 – Dec 2019
Ginny (Jiyoon) Kim	Oct 2018 – Dec 2019
Danielle Safo	May 2018 – May 2019
Joseph Teter	Jan 2019 – May 2019
Cassie Lawson	Jan 2018 – June 2018

## PUBLICATIONS

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\*indicates corresponding author, underlined indicates undergraduate student, and *italicized* indicates graduate student.

### ***Books/Book Chapter***

1. **Odeleye, O.O.** The adventures of a first-year teaching emphasis instructor. In *Chemistry Student Success: A Field-Tested, Evidence-Based Guide*. March 25<sup>th</sup>, 2020.
2. Asanov, E., Jackson, K, **Odeleye, O.**, Henderson, H., Harris, H and Hubbard, N. *Lightening the Load? Advancing Equity in the Workplace Theater Scripts Volume 1*. Accepted, February, 2024.

### ***Journal Publications***

1. *Glenn, Courtney D.\**, and **Odeleye, O. O.** Exploring Factors within an Introductory

- Course that Influence Students' Perception of Chemistry, *Chemistry Education Research and Practice*, 2024. West Virginia University. DOI: <https://doi.org/10.1039/D4RP00008K>
- 2.
  3. **Tang, D.\*** and **Odeleye, O.** Students' Perceptions on the Impact of Online Homework Systems on their Performance in a General Chemistry Course, *Journal of Science Education and Technology*, **32**, 710-721, 2023, West Virginia University. DOI: <https://doi.org/10.1007/s10956-023-10061-0>
  4. **Odeleye, O\***, **Lessani, P** and **Tang, D.** Evaluating the Experiences of Different Identity Groups in a General Chemistry Course, *Journal of Chemical Education*, 2022, West Virginia University. <https://doi.org/10.1021/acs.jchemed.2c00480>
  5. **Nabulsi, L\*** and **Odeleye, O.** Student Attitudes Toward Two Different Online Homework, *Journal of Education and Practice*, pp 29–40, 2021, University of Oklahoma. DOI: 10.7176/JEP/12-6-03
  6. **Nabulsi, L\***, **Nguyen, A.**, & **Odeleye, O.** The Impact of Traditional- and Adaptive-Responsive Online Homework Systems on Student Performance in General Chemistry: Analyzing Extra Credit Participation. *Journal of Education and Practice*, pp 20 –28, 2021, University of Oklahoma. DOI: 10.7176/JEP/12-6-02
  7. **Nabulsi, L.**, **Nguyen, A.** & **Odeleye, O\***. A Comparison of the Effects of Two Different Online Homework Systems on Levels of Knowledge Retention in General Chemistry Students. *Journal of Science Education and Technology*, 1–9. Oct 15<sup>th</sup>, 2020. <https://doi.org/10.1007/s10956-020-09872-2>

### ***Journal Manuscript in Review***

- Burch, Charmita, Hammonds-Odie, Latanya and Odeleye, Oluwatobi, Reasons Biology Majors Withdraw from Introductory STEM Courses through the Lens of Students and Instructors, *submitted to Journal of Biology Education*

## **PRESENTATIONS AND INVITED LECTURES**

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### **Invited Lectures**

- “Towards Equity in STEM Fields: What role does General Chemistry Play?”. West Virginia University, Morgantown, WV, October 15<sup>th</sup>, 2021
- “An exploration of student attitudes towards two different online homework systems used in a general chemistry course”, Eastern Michigan University, Ypsilanti, MI, April 12<sup>th</sup>, 2021
- “Innovation and Creativity in STEM Teaching and Learning”, Lead City University, Ibadan, Nigeria, July 2019

### **Presentations**

1. Odeleye, O. *Impact of a Forum for Chemistry and Math Introductory Course Instructors – a Professional Development Model*. Poster presentation at the National

- Association for Research in Science Teaching (NARST) 2024 Conference, Dever, CO, March 2024.
2. **Odeleye, O**, Lessani, P., and Tang, D. *General Chemistry Students' Perceptions and Attitudes towards Science: Through the lens of different identity groups*. Poster presentation at the Institute in Critical, Quantitative, Computational, and Mixed Methodologies Conference, Baltimore, MD, March 2022
  3. Tang, D., **Odeleye, O**. *Students' perceptions towards homework of general chemistry 1315 at University of Oklahoma*. Accepted Poster Presentation, Biennial Conference on Chemical Education (BCCE), 2020.
  4. Nabulsi, L., **Nguyen, A.**, and Odeleye, O. *Relationship of traditional – and adaptive-responsive online homework systems to student performance in general chemistry: Analyzing extra credit participation*. Poster presentation at the ACS Midwest Regional Meeting, Wichita, KS, October 2019.
  5. **Gachunga, A. W.** and Odeleye O. O. *Comparative analysis of ALEKS and Sapling as a general chemistry course homework system*. Poster presentation at the ACS Midwest Regional Meeting, Wichita, KS, October 2019. (Poster was selected as a Sci-Mix presentation, which represents the best of the posters submitted under the division).
  6. **Nabulsi, L**; Nguyen, A, and Odeleye, O. *Comparison of the effects of two different online homework systems on levels of knowledge retention and attitudes of general chemistry students*. Oral presentation at the ACS Midwest Regional Meeting, Wichita, KS, October, 2019.
  7. Nabulsi, L; Nguyen, A, and **Odeleye, O**. *Adaptive vs Traditional Homework Systems: Is there truly a difference?* Poster presentation at the Gordon Research Conference on Chemistry Education Research, Lewiston, Maine, June 2019
  8. Odeleye, O. O. *Adventures of a first-year teaching-emphasis educator*. Paper presented at Biennial Conference on Chemical Education. South Bend, IN. July 2018
  9. Odeleye, O. O. *The relationship between students' attitudes and their abilities to transfer knowledge about intermolecular forces*. Paper presented at Biennial Conference on Chemical Education. Greeley, CO. August 2016
  10. Odeleye, O. O., and Johnson, A.F. *"I don't like chemistry because..." How do students' definitions of chemistry influence their attitudes towards the discipline?* Paper presented at Biennial Conference on Chemical Education. Allendale, MI. August 2014
  11. Odeleye, O. O., and Johnson, A.F. *"School chemistry vs. real chemistry: An investigation of students' definitions and views of chemistry"* Paper presented at the 246<sup>th</sup> American Chemical Society National Meeting. Indianapolis, IN. March, 2013.
  12. Odeleye, O. O., and Johnson, A. F. *"The relationship between students' definition of chemistry and their attitude towards the discipline"* Paper presented at Eastern Michigan University's Graduate Research Fair. Ypsilanti, MI. March, 2013
  13. Odeleye, O. O., and Johnson, A.F. *"Factors that influence students' attitudes towards chemistry"* Paper presented at the Central Region of the American Chemical Society. Dearborn, MI. June, 2012.

## FINANCIAL SUPPORT

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### Current Funding

- 09/2022 – 08/2024 *The Chemistry and Mathematics Introductory Large-Enrollment Courses Forum*
  - Source: National Science Foundation
  - Award (Amount): NSF-DUE #2232453 (\$99,273)
  - Role: PI

### **Pending Funding**

- Collaborative Research: BCSER: Mathematics and Chemistry Partnering Regional Institutes in Education Research (Math-Chem PRISER)
  - Source: National Science Foundation
  - Role: PI
  - Amount: \$647,973
- Challenging the Status Quo: Investigating the effects of implementing social-psychological modules in introductory STEM courses on students from underrepresented racial groups
  - Source: National Science Foundation
  - Role: PI
  - Amount: \$542,674
- Investigating the effects of a modified general chemistry curriculum on the performance and mindset of students in general chemistry
  - Source: National Science Foundation
  - Role: PI
  - Amount: \$258,272

### **Prior Funding**

- N/A

## **SERVICE**

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### **West Virginia University**

1. Lectures and Colloquium committee Member - Department of Chemistry (August 2023 – present)
2. Undergraduate Recruiting and Tours Committee – Department of Chemistry (August 2023 - present)
3. Undergraduate Outstanding Publications Committee (March 2023)
4. Eberly Connections: Equity Informed Teaching (Feb 2023)
  - Panelist alongside 3 other faculty members discussing how we use equity-informed practices in our teaching.
5. Graduate Studies Committee member – Department of Chemistry (August 2022 – present)
6. Outreach Committee Member – Department of Chemistry (August 2022 – August 2023)

### **University of Oklahoma**

7. Provost's Advisory Committee on Women's Issues (PACWI) – University of Oklahoma (August 2020 – 2022)
8. College of Arts and Sciences Executive Committee member – University of Oklahoma (August 2020 – 2022)
9. Pre-Med/Pre-dental interview committee member – University of Oklahoma (2019 – 2022)
  - Provided support for students during their application to medical school.
10. Girl Scout Badge University Panelist (Nov 2018)
  - Was on a panel with five other women in various STEM fields and spoke to girls (2<sup>nd</sup> – 10<sup>th</sup> grade) about our experiences as women in STEM fields.

### **Professional Service**

1. NSF Reviewer – 2022
2. Manuscript reviewer for the following journals: Journal of Chemical Education, Teaching and Teacher Education, JACS Au, and MDPI Education Sciences
3. Co-editor for ACS Symposium Book Series – *Chemistry Student Success: Case Studies for New Educators*. (July 2019 – 2020)
4. ACS Books reviewer (2018)
  - Reviewed a manuscript for the following book series: “Technology Integration in Chemistry Education and Research (TICER)”
5. Big Sioux Water Festival (2014-2016)
  - Worked with Dr. Matt Miller at SDSU to provide demonstrations for elementary school children in the area.
6. Boy Scouts Chemistry Merit Badge (2015 -2016)
  - Worked with boy scouts to provide assistance in completing various experiments required for their chemistry merit badge
7. Eastern South Dakota Science and Engineering Fair (2016)
  - Judged middle school chemistry projects.