TEACHING AND VOLUNTEERING EXPERIENCES

Shirley and Fraser Russell Teaching Fellow Feb 2016 – Jun 2016
University of Delaware, CHEG 342: Mass and Heat Transport
- Taught one third of lectures (with supervision from experienced instructors)
- Prepared lectures, conducted office hours, prepared projects and exams for 70+ students

University of Delaware Teaching Assistant
CHEG 342: Mass and Heat Transport (90+ Undergrad students) Feb 2015 – Jun 2015
CHEG 845: Advanced Transport Phenomenon (20+ Grad students) Feb 2014 – Jun 2014
- Conducted office hours to guide students through problem sets
- Helped student become independent thinkers and problem solvers

Other Teaching and Tutoring Experience
CHEG 621: Metabolic Engineering, **Guest Lecturer** Nov 2016
University of Maryland Baltimore County LRC, **Tutor** Feb 2009 – Dec 2011

SUMMARY OF COMPETENCIES

Proficient in: Systems level and quantitative analysis of metabolism; ^{13}C-metabolic flux analysis; isotopic labeling experiment design, implementation, and analysis; metabolic network model reconstruction and validation; Matlab; Originlab; Minitab; and bilingual (Amharic-English).

Familiar with: Plasmid extraction; PCR amplification; gel electrophoresis; DNA ligation; transformation of chemically competent cells; transformation of electro-competent cells; primer design; restriction digest; plating; tolerance assays; BLAST; colony PCR; knocking out gene; Photoshop

HONORS, AWARDS AND AFFILIATIONS

First place poster award at FCBIS (May, 2016) ● Shirley and Fraser Russell Teaching fellow (2016) ● University of Delaware Chemistry Biology Interface (CBI) Scholar (2012 – Present) ● MARC U* Scholar, NIH research grant and Scholarship (2010 – 2012) ● Meyerhoff Scholar (2008 – 2012) ● Outstanding Senior in Chemical Engineering (2012) ● National Society of Collegiate Scholar (2008 – 2012) ● W.E.B Du Bois Honors Society (2008 – 2012) ● Matters of Hear Scholar (2008) ● Tau Beta Pi Honors Society (2011) ● Outstanding Science Senior (2008) ● Outstanding Senior in Mathematics (2008)

SELECTED POSTER AND ORAL PRESENTATIONS

Metabolic Engineering XI (Kobe, Japan) [**Poster**]
Elucidating the Physiology of Complex Microbial Systems through a novel co-culture ^{13}C-MFA (June, 2016)

Metabolic Engineering X (Vancouver, CA) [**Poster & selected for rapid fire oral presentation**]
^{13}C-Metabolic Flux Analysis of Co-culture systems: a novel approach (June, 2014)

AIChE Annual National Conference (Salt Lake City, Utah) [**Poster**]
Limited Effect of Oxygen-containing Functional Group in the Carbon Source on the Synthesis of Carbon Nanotubes Catalyzed by Fe-Mo Nanoparticles (Nov, 2010)

University of Delaware Winter Research Review (Newark, DE) [**Oral**]
Elucidating the Physiology of Complex Microbial Systems Through a Novel Co-culture ^{13}C-MFA (Jan, 2016)

University of Delaware Chemistry Biology Interface (CBI) Seminar (Newark, DE) [**Oral**]
^{13}C-Metabolic Flux Analysis of Co-culture systems: a novel approach (Sep, 2014)