Teaching Experience

Andrew S. Voyles

July 5, 2023

University of California, Berkeley

Berkeley, California

Assistant Research Engineer

• International Nuclear Data and Analytical Techniques (INDAT) 21–29 June 2023 Lecturer for 3 days of the 2023 INDAT Summer School, based on reviews from the 2022 NSSC Summer School, teaching 20 graduate student attendees with a similar curriculum. Designed and led a lab practical for attendees at the UC Davis Crocker Cyclotron, for a stacked-foil measurement of the production cross sections for the $^{\text{nat}}\text{Mo}(p,x)^{93,94,95,96}\text{Tc}$ and $^{\text{nat}}\text{Ni}(\alpha,x)^{62,63,65}\text{Zn}$ reactions, as new monitor reactions for high-energy accelerator facilities, culminating in a peer-reviewed publication (currently in preparation).

• Nuclear Data Summer School 2022

01–12 August 2022

Lecturer for 3 days of the 2022 NSSC Nuclear Data Summer School, teaching 25 graduate student attendees about nuclear medicine, isotope production, predictive codes for nuclear reaction calculations, gamma spectroscopy, data analysis, and scientific writing. Led a lab practical for attendees at the UC Davis Crocker Cyclotron, for a stacked-foil measurement of the production cross sections for ^{177,180m}Ta, a pair of emerging Auger emitters for therapeutic applications. Responsible for designing and carrying out the lab practical, lectures, analysis of the collected data, and manuscript preparation, culminating in a peer-reviewed publication (currently in preparation). This module was by far the highest-rated of the summer school.

Graduate Student Instructor

• NE 101 / 210M — Nuclear Reactions and Radiation

Fall 2015

Wrote and graded homework sets for class of 41 undergraduate and graduate students, and led weekly discussion sections for entire class on supplementary material and applications of course material. Mentored students through semester in their coursework, and helped doctoral-track graduate students prepare for their departmental screening exams in this topic.

University of Utah

Salt Lake City, Utah

National Science Foundation Outreach Mentor

May, 2010 - May, 2013

• Created and presented hands-on demos to local schools, to advocate engineering and science careers, focusing on historically underrepresented demographics.

Teaching Assistant

• CH EN 2300 — Thermodynamics I

Spring 2013

• NUCL 3000 / 5030 — Nuclear Principles in Engineering

Fall 2011

Designed semester-long computational simulation projects using GEANT4 for class of 63 undergraduate and graduate students, after teaching GEANT4 programming to class. Mentored students through semester in developing their projects, as well as coursework.