

Clark I. Andersen

[linkedin.com/in/clarkandersen](https://www.linkedin.com/in/clarkandersen) | (435) 730-3524 | clarkia@byu.edu

Education

East Carolina University (Greenville, NC)

December 2025

Doctor of Philosophy, Interdisciplinary Doctoral Program in Biology, Biomedicine, and Chemistry
Expected Graduation in December 2025

Post-Baccalaureate Teacher Education Courses

2016—2021

36 Additional college-level credits completed in Chemistry, Physics, and Education to earn the Utah teaching endorsements in Chemistry, Physical Science and Middle School Science. Includes week-long training on teaching with lab work, Astronomy in Dark Sky areas, and electrical engineering.

Brigham Young University (Provo, UT)

April 2016

Major in School Health Education, Minor in Chemistry
400+ hour student teaching capstone, teaching students 10-12 grade
Coursework in teaching practices, classroom management, lab safety, teaching methods in physical sciences

Teaching Experience

Brigham Young University

2026-Present

Coordinated the General Chemistry curriculum for non-majors. Taught General Chemistry lab and lecture and led training meetings with student instructors and teaching assistants. Referred to Chemistry Education Research for teaching methods, and collaborated with stockroom staff to ensure equipment is available and functioning.

North Carolina Wesleyan University (Rocky Mount, NC)

2026

Taught General Chemistry lecture and lab, including writing exams and other assessments. Lab curriculum was an argument-driven inquiry style lab, requiring students to collect data, come to conclusions, and argue their conclusions with other students.

East Carolina University

2021—2026

Taught and led the introductory chemistry laboratory for chemistry majors and nonmajors. Curriculum was an argument-driven inquiry style lab, requiring students to collect data, come to conclusions, and argue their conclusions with other students.

Weber School District (Ogden, UT)

2018—2021

Secondary Science/Physics Teacher

Developed and taught lessons to both 8th Grade and 9th Grade Students; Taught the hands-on Physics with Technology course that covered both Science credit, as well as Career and Technical Education

credit; in working with Honors Science students, I guided and helped with Science, Technology, Engineering, Math (STEM) research to compete at the local level; Consistently received high evaluation from employers.

Carbon School District (Price, UT)

2016—2018

Secondary Science Teacher

Developed and taught lesson plans to 8th Grade Students; mastered and applied the Utah State Science and Engineering Education standards, as well as the Cross-Cutting Concepts and Practices for Science Education in Utah; Consistently received high marks and feedback in Entry-Years Enhancement projects and requirements.

Research

East Carolina University

2021—2026

Team Experiences and Mentoring Strategies in Undergraduate Research (TEaMS-UR)

Graduate Student/PhD Candidate

Embedded team science training in multidisciplinary course-based undergraduate research experiences across biology, chemistry, and engineering. Responsibilities included social network analysis of student teams, development of coding schemas, and visualization of trust dynamics through sociograms. Project outcomes supported cross-disciplinary pedagogy and contributed to multiple publications and national presentations.

External Funding Applications

National Science Foundation

December 2024

Social Network Analysis to Measure Communities of Practice in Undergraduate Chemistry Education

Grant Title: “Science, Technology, Engineering, and Mathematics Education Individual Postdoctoral Research Fellowships”

Proposed a mixed-methods investigation into how undergraduate chemistry students form disciplinary communities through course-based research experiences. The application emphasized longitudinal SNA and integration with existing CURE frameworks. Reviewer feedback noted strong methodological grounding and innovative potential for STEM education reform.

Status: Not Funded

Publications

2025

Andersen, C. I., Burns, C., & Walker, J. P. (2025). Social Network Analysis to Measure Trust and Learning in Three Undergraduate Organic Chemistry Laboratory Contexts: Expository Laboratory Instruction – Argument-Driven Inquiry – Course-based Research Experience. [Manuscript Submitted for Publication].

2024

Wurz, A. I., Andersen, C. I., Walker, J. P., & Hughes, R. M. (2024). Evolution of a Biocatalysis CURE for Organic Chemistry Students. *Journal of Chemical Education*, 101(8), 3163–3170.
<https://doi.org/10.1021/acs.jchemed.4c00118>

2023

Vance-Chalcraft, H., Etheridge, R., O'Driscoll, M., Peralta, A., Andersen, C., Freeland, F., & Walker, J. (2023). Investigating the Development of Team Science Skills and an Improved Understanding of Multidisciplinary Research through Parallel Courses in Biology, Geology, and Environmental Engineering. *Scholarship and Practice of Undergraduate Research*, 7(2), 53–64.
<https://doi.org/10.18833/spur/7/2/9>

2022

Jayanthi, K., Neilsen, G., Rosen, P. F., Andersen, C. I., Dickson, M. S., Evans, S. F., Paranthaman, M. P., Woodfield, B. F., & Navrotsky, A. (2022). Cryogenic heat capacity measurements and thermodynamic analysis of lithium aluminum layered double hydroxides (LDHs) with intercalated chloride. *American Mineralogist*, 107(4), 709–715. <https://doi.org/10.2138/am-2021-7935>

Presentations and Posters

2025

Andersen, C. I., & Walker, J. P. (2025, March 23). Embedding team science in course-based undergraduate research experiences: Key elements [Poster Presentation]. American Chemical Society Conference, San Diego, CA.

2024

Andersen, C. I., & Walker, J. P. (2024a, July 31). Embedding team science in course-based undergraduate research experiences: Key elements [Presentation]. Biennial Conference on Chemistry Education, Lexington, KY.

Andersen, C. I., Freeland, F., & Walker, J. P. (2024, June 16). Introducing the Science of Team Science (SciTS) in the Undergraduate Curriculum [Presentation]. Improving Undergraduate STEM Education National Summit, Washington, D.C.

Andersen, C., & Walker, J. P. (2024, March 10). Embedding team science in course-based undergraduate research experiences: Key elements. <https://doi.org/10.1021/scimeetings.4c10600>

2023

Andersen, C. I., & Walker, J. P. (2023, July 12). Social Network Analysis and the Undergraduate Chemistry Laboratory [Poster Presentation]. Gordon Research Conference: Chemistry Education Research and Practice, Lewiston, ME.

Andersen, C. I., & Walker, J. P. (2023, April 28). Team Experiences and Mentoring Strategies for Undergraduate Research in Chemistry. Research & Creative Achievement Week, East Carolina University, Greenville NC.

2022

Andersen, C. I., & Walker, J. P. (2022, August 3). Team Science in Undergraduate Research [Poster Presentation]. Biennial Conference on Chemical Education, West Lafayette, IN.

2019

Andersen, C. I. (2019, July 23). My FREEZING COLD Summer: Low-Temperature Heat Capacity Measurements [Presentation]. REU/RET Research Symposium, Brigham Young University, Provo, UT.

Associations

American Chemical Society	2019—Present
North Carolina Chemical Education Research Society	2021—2026
Utah Science Teacher Association	2016—2021

Skills

Office Computer Software

Microsoft Office Suite (Word, Excel, PowerPoint, Outlook, Teams)

Research Software

UCINET/Netdraw, SPSS, NVivo 14, Adobe Creative Cloud

Learning Management Software

Canvas, MasteryConnect

Team Science Training

Workshops on communication, conflict resolution, research planning, and embedding these principles in a laboratory setting

General Chemistry Teaching

Experience teaching measurements/significant figures, pipetting, titrations, Beer's Law plotting, calorimetry

Language Fluency

Romanian (Conversational)