

TERRY A. GEIGER

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EDUCATION

M.S., Chemistry – Kansas State University, Manhattan, KS

1999–2001

Thesis: “*Synthesis and Scale-up of a Series of Alkanediones Used in Urea Inclusion Compounds*”

Advisor: Dr. Mark Hollingsworth

B.S., Chemistry – University of Colorado Colorado Springs, Colorado Springs, CO

1992–1996

PROFESSIONAL BACKGROUND SUMMARY

Experienced chemistry educator and researcher with over two decades of combined academic, industry, and instructional experience. Currently a Teaching Professor at the University of Colorado Colorado Springs (UCCS), with 13.5 years of instructional service and curriculum development, including the creation of online laboratory courses and leadership in non-major organic chemistry instruction. Prior to joining UCCS, served as an Adjunct Lecturer at Aims Community College (2008–2012), teaching a range of introductory and general chemistry courses with integrated labs. Earlier in my career, I worked in the pharmaceutical and biotechnology industry at Atrix Laboratories, QLT USA, and Reckitt Benckiser Pharmaceuticals, where I specialized in drug formulation, GMP compliance, equipment validation, and clinical trial support. My graduate research at Kansas State University focused on organic synthesis and crystallographic characterization of urea inclusion compounds. I am known for bridging real-world applications with classroom instruction and for contributing to student success through innovative teaching and active service in university committees.

PROFESSIONAL EXPERIENCE

Teaching Professor – University of Colorado Colorado Springs (UCCS)

Department of Chemistry and Biochemistry

August 2023–Present (2 years in role)

- Developed and currently manage the Organic Chemistry Laboratory sequence for non-majors, including curriculum design, instructional oversight, and coordination of multiple lab sections.
- Supervise 1–2 graduate teaching assistants and 1–2 instructors each semester to ensure consistent and high-quality laboratory instruction.
- Created Chemistry 1001, an introductory course that fulfills the university’s Natural Science general education requirement.
 - Designed and implemented an online version of Chemistry 1001, along with Chemistry 1002, an online laboratory course, to expand access and flexibility for students.
- Developed an online Organic Chemistry Laboratory curriculum specifically for summer semesters, enhancing accessibility and continuity for students during off-term periods.

- Teach additional laboratory sections across the chemistry curriculum.
- Serve as an instructor in the GPS 1010 Gateway Program Seminar, supporting first-year students in their academic transition and success.

Previous Faculty Roles at UCCS (Total: 13.5 years)

- Senior Instructor, August 2017 – August 2023 (6 years)
- Instructor, August 2012 – August 2017 (5 years)
- Summer Teaching Credit: Equivalent to 2.5 years (10 summer semesters at 0.25/year)

Courses Taught:

- Chemistry 1001: Pre-Chemistry
- Chemistry 1002: Pre-Chemistry Laboratory
- Chemistry 1201: Introduction to Chemistry Laboratory
- Chemistry 3000: Organic Laboratory
- Chemistry 3102: Organic Laboratory I
- Chemistry 3112: Organic Laboratory II
- GPS 1010: Gateway Program Seminar

Service Contributions:

- Active participant in Departmental Meetings since 2012
- Member of the President's Scholarship Committee since 2020
- Member of the Brad Stoehr Scholarship Committee since 2017
- Member of the Tuition Appeals Committee since 2023

Adjunct Lecturer – Aims Community College, Greeley, CO

2008–2012

- Taught a range of introductory and general chemistry courses with integrated laboratory components.
- Courses included:
 - CHEM 101: Intro to Chemistry I with lab
 - CHEM 102: Intro to Chemistry II with lab
 - CHEM 111: General College Chemistry I with lab
 - CHEM 112: General College Chemistry II with lab

Industry Experience Summary

Prior to joining UCCS, I spent over a decade in the pharmaceutical and biotechnology industry, gaining extensive experience in drug formulation, process development, GMP compliance, and clinical trial support. My roles at Atrix Laboratories, QLT USA, and Reckitt Benckiser Pharmaceuticals involved progressive responsibilities in research, manufacturing, and facilities management, including:

- Leading scale-up and validation of drug formulations for clinical trials.
- Managing GMP facility renovations, equipment qualifications (IQ/OQ/PQ), and stability programs.
- Collaborating across departments to support regulatory submissions (IND/NDA) and pre-clinical studies.
- Synthesizing and preparing GLP/GMP test articles and managing stability testing for drug candidates.

This industry background continues to inform my teaching and curriculum development, especially in laboratory instruction and real-world applications of chemical principles.

Senior Research Associate / Facilities Manager – Reckitt Benckiser Pharmaceuticals, Fort Collins, CO

2008–2012

- Led the transformation of an R&D facility into a GMP-compliant pilot manufacturing site for clinical human study supplies.
- Oversaw renovation planning and execution for GMP compliance.
- Managed equipment calibration for GxP and R&D operations, including vendor selection and contract negotiation.
- Drafted, reviewed, and approved IQ/OQ/PQ protocols and final validation reports for legacy and new equipment.
- Directed qualification and re-qualification of GMP process equipment (e.g., filling, packaging, stability chambers).
- Played a lead role in manufacturing GMP supplies for Phase I/II clinical trials.
- Designed and implemented an ICH-compliant stability program, including chamber acquisition and protocol development.
- Synthesized research-grade polymers (gram to kilogram scale) for non-human studies, including batch record and report preparation.

Research Associate III – QLT USA, Fort Collins, CO

2004–2008

- Managed pre-clinical studies and formulation scale-up for drug candidates transitioning to pilot manufacturing.
- Collaborated across departments to prepare test articles and troubleshoot manufacturing issues.
- Conducted research on lyophilization and designed optimized cycles.
- Authored technical reports and executed IQ/OQ/PQ protocols for research/process equipment.
- Designed and coordinated GLP/GMP stability studies and maintained data in FDA-approved systems.
- Co-authored CMC documentation for regulatory submissions (IND, NDA).
- Completed formal GMP training and worked in GMP environments.

Research Associate II – Atrix Laboratories, Fort Collins, CO

2001–2004

- Supported formulation development and scale-up of drug candidates.
- Conducted routine and research analyses using HPLC and ELISA.
- Prepared GLP test articles and stability protocols for non-clinical studies.
- Scaled up API candidates from lab to full-scale production.
- Maintained laboratory records and presented findings to supervisors.

CURRICULUM DEVELOPMENT & INSTRUCTIONAL INNOVATION

University of Colorado Colorado Springs (UCCS)

Department of Chemistry and Biochemistry

Organic Chemistry Laboratory Sequence (CHEM 3102 & CHEM 3112)

Developed and manage the non-majors organic chemistry laboratory sequence.

- Continuously update syllabi to meet accreditation standards.
- Revise and improve laboratory experiments to enhance student learning and instructional efficiency.
- Streamline course structure to improve manageability for both students and faculty.
- Integrate in-person instruction with online quizzes and open-source materials.
- Coordinate grading and manage instructional teams, including graduate teaching assistants and faculty.

CHEM 3102 & CHEM 3112: Online Organic Chemistry Laboratory Sequence

Developed remote-access versions of the non-majors organic chemistry laboratory sequence using **prepared chemistry kits** from an approved vendor, allowing students to complete experiments at home.

- Designed lab activities to align with learning outcomes and safety standards.
- Coordinated kit selection, vendor approval, and distribution logistics.
- Created instructional materials and video demonstrations to support asynchronous learning.
- Ensured compliance with departmental and accreditation standards for remote laboratory instruction.

CHEM 3002: One-Semester Organic Chemistry Laboratory

Designed a condensed organic chemistry lab course for students requiring only one semester.

- Developed the course while mentoring a new faculty member, who now teaches it.

CHEM 1001 & CHEM 1001 OL1: Pre-Chemistry (Face-to-Face and Online)

Transformed a remedial chemistry course into a Compass Curriculum-approved general education course.

- Developed lecture slides, online quizzes, exams, and asynchronous video lectures.
- Designed and implemented the online version to meet LAS Natural Science requirements.

CHEM 1002 OL1: Pre-Chemistry Laboratory Online

Created an optional online lab course to accompany CHEM 1001 OL1.

- Adopted and manage online laboratory platforms.
- Provide supplemental instructional materials and maintain curriculum alignment with accreditation standards.

GPS 1010: Gateway Program Seminar – STEM and Engineering Intent

Developed and teach a first-year seminar focused on STEM student success.

- Collaborate with faculty in a team-teaching format.
- Design course materials and update syllabi to meet GPS program standards.

Online Organic Chemistry Laboratory Curriculum (Summer Semester)

Designed and implemented a fully online organic chemistry lab curriculum for summer offerings.

- Expanded access for students needing flexible scheduling.
- Maintained academic rigor and alignment with departmental learning outcomes.

PROFESSIONAL TRAINING**TOCP: Course Design**

University of Colorado Colorado Springs, 2018

Completed training in online course design using Canvas, focused on effective digital pedagogy and instructional design for higher education.

Facility Training: Clean Room Certification & Particle Control

Particle College, Philadelphia, PA, 2010

Received certification in clean room operations, including particle behavior and contamination control in GMP environments.

ICH-Compliant Stability Training

Completed training on the design and implementation of stability programs for pharmaceutical products, covering shelf-life determination from development through regulatory approval. The Center for Professional Advancement (CfPA), East Brunswick, NJ, 2009

PROFESSIONAL AFFILIATIONS

- American Chemical Society (ACS)
- American Association for the Advancement of Science (AAAS)
- International Society for Pharmaceutical Engineering (ISPE)
- Lyophilization Society

PROFESSIONAL CONSULTANTS

Spectranetics Corporation, Colorado Springs, CO

Consultant, 2012–2013

Provided expertise in chemistry and pharmaceutical processes to support product development and regulatory compliance.

REFERENCES

Dr. Jerry Phillips, Director of the Science Center

University of Colorado Colorado Springs

1420 Austin Bluffs Parkway, Colorado Springs CO, 80918

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Dr. James Kovacs, Assistant Professor

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Dr. Andrew Klocko, Assistant Professor

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Suman Lakkakula, Senior Instructor

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