

Andrea Marie Verdan

CURRICULUM VITAE

PROFESSIONAL APPOINTMENT:

Associate Teaching Professor, Department of Chemistry
Associate Director for Term Faculty, Center for Faculty Development
Seattle University
Seattle, WA 98122

COMMUNICATION:

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EDUCATIONAL BACKGROUND

PhD Chemistry

August 2007 – May 2012

Clemson University, Clemson, SC; comprehensive exams in inorganic chemistry; GPA: 3.61
PhD Research Dissertation in Chemistry Education: "Finding a new continent versus mapping all the rivers: Recognition, ownership, and the scientific epistemological development of practicing scientists and engineers"

BA Chemistry; BA Humanities

September 1998 – December 2003

Seattle University, Seattle, WA; graduated *magna cum laude* with university honors; GPA: 3.835
BA Chemistry Literature Research Thesis: "Distinguishing between DNA repair & cell death in the p53 pathway"
BA Humanities Research Thesis: "Mental illness & the marginalized in Washington state: Shortcomings in public policy"

PROFESSIONAL EXPERIENCE

Teaching Experience

Associate Teaching Professor (previously titled Senior Instructor)

September 2020 – Present

Every quarter, teaching multiple sections of CHEM 1500/1501, CHEM 1510/1511, and CHEM 1520 (general chemistry series lecture and laboratory); frequently assigned lead work units of these course, with administrative duties of organizing multi-section courses and mentoring adjunct faculty. Every other year, teaching UCOR 1800 (a nature of science course titled "Potions for Muggles"). In winter quarter 2023, taught CHEM 2100 (Fundamental Inorganic Chemistry) for Dr. Eric Watson on sabbatical and developed POGIL activities and a creative final project for the course. Department of Chemistry, Seattle University, Seattle, WA.

Instructor

September 2014 – June 2020

Every quarter taught multiple sections of courses within the general chemistry series. Taught and developed "Potions for Muggles" chemistry course for non-majors in the university core curriculum, UCOR 1800. Department of Chemistry, Seattle University, Seattle, WA.

Adjunct Lecturer

September 2012 – June 2014

Taught general chemistry series (lecture and laboratory) for undergraduate science and engineering students. Assisted in the development of a new guided-inquiry experiment for laboratory curriculum. Department of Chemistry, Seattle University, Seattle, WA.

Graduate Teaching Assistant

August 2007 – May 2012

Taught laboratories, held weekly office hours, graded assignments & lab reports, and proctored examinations for general and organic chemistry courses. Held “Head/Master TA” position since August 2008, providing training and weekly mentoring for first-year and international graduate teaching assistants. Department of Chemistry, Clemson University, Clemson, SC.

Instructor

Summers 2011 and 2010

Taught general chemistry (lecture and laboratory) in an intensive four-week course for first-generation freshman college students interested in engineering and science careers. Clemson FIRST Summer Preview Program. Clemson University, Clemson, SC.

Substitute Lecturer

Spring semester 2011

Taught general chemistry (3 lectures) and introductory organic chemistry (3 lectures) while instructor was out of town. Department of Chemistry, Clemson University, Clemson, SC.

Substitute Lecturer

Fall semester 2010

Taught (approximately 10 lectures), graded homework, and held office hours for an honors-level general chemistry course while instructor was out of town. Department of Chemistry, Clemson University, Clemson, SC.

English as a Second Language Instructor

June 2006 – August 2007

Taught speaking, listening, writing, and reading skills in general and academic English courses (beginner to advanced levels) and TOEFL exam preparation courses to college and adult international students. Kaplan International Colleges, Seattle, WA.

English as a Second Language Instructor

August 2004 – February 2006

Taught conversational, academic, and business English (beginner to advanced levels) to students ranging from young children to adults. Freelance tutor; Bi-Cultural Executive Language Services; Business First Language Services; The Meeting Point School of English, Barcelona, Spain.

Undergraduate Teaching Assistant

Spring quarter 2003

Supervised student laboratories, answered student inquiries, and graded lab notebooks for introductory biology. Department of Biology, Seattle University, Seattle, WA.

Leadership Experience

Associate Director for Term Faculty

June 2022 – Present

Coordinating and co-facilitating interactive and cross-disciplinary workshops and learning opportunities on topics relevant to term faculty; consulting individually, primarily with term faculty, on sensitive or complex issues. Planning and co-hosting annual new faculty orientation. Center for Faculty Development, Seattle University, Seattle, WA.

Research and Laboratory Experience

Graduate Student in Chemistry Education

August 2007 – May 2012

Performed qualitative research using in-depth interviews with chemistry graduate students and engineering & science faculty members to elicit their understandings of ethical research conduct and practice. Department of Chemistry, Clemson University, Clemson, SC.

Graduate Student in Bio-Inorganic Chemistry

August 2008 – August 2009

Purified & amplified *E. coli* plasmid DNA and performed gel electrophoresis and UV-vis spectroscopy experiments to determine the antioxidant activity and oxidation kinetics of polyphenolic hydroxychromone compounds. Department of Chemistry, Clemson University, Clemson, SC.

Clinical Laboratory Technician

July 2002 – August 2004

Trained new employees, handled and prepared biological specimens, entered test requisitions in computer databanks, and provided customer service to clients & medical technicians. Department of Laboratory Medicine, University of Washington Medical Center, Seattle, WA.

Laboratory Research Assistant

Summer 2000

Performed solution and sample preparations for cell cultures, western blot analysis, and HPLC chromatography. Sen-itiroh Hakomori Lab, Pacific Northwest Diabetes Research Institute, Seattle, WA.

PUBLICATIONS

Peer-Reviewed Articles (* indicates undergraduate co-author)

3. Verdan, A. M.; Bhattacharyya, G. "Recognition, ownership, and the scientific epistemological development of practicing scientists and engineers," *Sci. Educ.* Manuscript in preparation.
2. Verdan, A. M.; Wang, H. C.; Garcia, C. R.; Henry, W. P.; Brumaghim, J. L. "Iron binding of 3-hydroxychromone, 5-hydroxychromone, and sulfonated morin: Implications for the antioxidant activity of flavonols with competing metal binding sites," *J. Inorg. Biochem.* **2011**, *105*, 1314-1322.
1. Verdan, A. M.; Ingallinera, J. T.*; Bhattacharyya, G. "Scientific norms and ethical misconduct: Research towards the design of a course in scientific ethics," *Chem. Educ. Res. Pract.* **2010**, *11*, 118-123.

PRESENTATIONS

Scientific Research Conferences (* indicates undergraduate co-author)

10. Bhattacharyya, G.; Verdan, A. M.; Cain, L. "Me, myself, and I: Professional identity in the epistemic and ethical development of chemists," 247th National American Chemical Society Meeting, Dallas, TX (March 18, 2014)
9. Verdan, A. M.; Bhattacharyya, G. "Yours, mine, and ours: Recognition and ownership in the identity development of practicing scientists and engineers," 22nd Biennial Conference on Chemical Education, University Park, PA (August 1, 2012).
8. Verdan, A. M.; Bhattacharyya, G. "Are we ready or not? Preparing for life after the PhD," Chemistry Education Research Graduate Student Conference, Miami University, Oxford, OH (June 11, 2011).
7. Verdan, A. M.; Bhattacharyya, G. "Making decisions in scientific research: Conceptions of contributions, collaborations, and credit," 21st Biennial Conference on Chemical Education, Denton, TX (August 2, 2010).
6. Verdan, A. M.; Ingallinera, J. T.*; Bhattacharyya, G. "Ethical training based on students' experiences with normative values and scientific misconduct," 21st Biennial Conference on Chemical Education, Denton, TX (August 2, 2010).

5. Verdan, A. M.; Henry, W. P.; Brumaghim, J. L. "Fe(II) binding of 3-hydroxychromone, 5-hydroxychromone, and sulfonated morin: antioxidant activity of flavonoids with competing metal binding sites," 239th National American Chemical Society Meeting, San Francisco, CA (March 21, 2010).
4. Bhattacharyya, G.; Walls, B. M.; Verdan, A. M.; Fetters, T*. "Professional identity: The central component of practitioner development?" 61st Southeastern Regional American Chemical Society Meeting, San Juan, Puerto Rico (October 22, 2009).
3. Verdan, A. M.; Ingallinera, J. T.*; Bhattacharyya, G. "Raising the red curtain: Ethics and norms of chemistry graduate students," Chemistry Education Research Graduate Student Conference, Miami University, Oxford, OH (June 6, 2009).
2. Bhattacharyya, G.; Verdan, A. M.; Ingallinera, J. T.* "Plagiarism and epistemology: The odd couple of ethics?" 237th National American Chemical Society Meeting, Salt Lake City, UT (March 22, 2009).
1. Bhattacharyya, G.; Verdan, A. M. "Ethics and norms of chemistry graduate students," 20th Biennial Conference on Chemical Education, Bloomington, IN (July 29, 2008).

University Research Seminars

3. Verdan, A. M. "Yours, mine, and ours: Recognition and ownership in the identity development of practicing scientists and engineers," Invited presenter at the Engineering and Science Education Departmental Seminar, Clemson University, Clemson, SC (November 4, 2011).
2. Verdan, A. M. "Are we ready or not? Preparing for life after the PhD," Presented at Chemistry Departmental Student Seminar, Clemson University, Clemson, SC (October 29, 2010).
1. Verdan, A. M. "Witchcraft in a white coat? Understanding the nature of science through the scientific method," Presented at Chemistry Departmental Student Seminar, Clemson University, Clemson, SC (April 2, 2010).

CONFERENCES & WORKSHOPS ATTENDED

7. 47th Annual Professional and Organizational Development (POD) Network Conference, Seattle, WA (November 16-18, 2022).
6. POGIL Northwest Regional 3-Day Workshop, Lewis & Clark College, Portland, OR (July 25 – 27, 2017).
5. POGIL Northwest Regional 3-Day Workshop, University of Puget Sound, Tacoma, WA (June 30 – July 2, 2014).
4. Chemistry Education Research Graduate Student Professional Development Conference, Miami University, Oxford, OH (June 10 – 12, 2011).
3. 21st Biennial Conference on Chemical Education, Denton, TX (August 1 – 5, 2010).
2. Chemistry Education Research Graduate Student Professional Development Conference, Miami University, Oxford, OH (June 5 – 7, 2009).
1. 235th ACS National Meeting, New Orleans, LA (April 6 – 10, 2008).

AWARDS AND RECOGNITIONS

- Provost's Award for Full-Time Term Faculty Excellence in Teaching* Academic Year 2022/2023
Recognition for creative and student-centered teaching, consistently advocating for change to support the success of all students. Seattle University, Seattle, WA.
- College of Science and Engineering Dean's Award* Academic Year 2022/2023
Recognition for leadership and service to develop promotion criteria for teaching professors within the College of Science Engineering. Seattle University, Seattle, WA.
- College of Science and Engineering Reflection Speaker* September 4, 2020
Invited guest speaker reflecting on Ignatian Pedagogy in practice. Seattle University, Seattle, WA.
- Jesuit Mission Fellowship* Fall 2016 – Fall 2017
Participated in year-long exploration of foundational principles of Jesuit education and practical application for pedagogy and scholarship. Seattle University, Seattle, WA.
- Center for Excellence in Teaching and Learning 'Year of the Teacher' Participant* June 2016
Interviewed and had general chemistry class recorded for 'Teaching Tales' film project. Seattle University, Seattle, WA.
- Center for Excellence in Teaching and Learning Writing Scholar* June 18 – 20, 2013
Invited to attend Seattle University-funded writing retreat. Salish Lodge, Snoqualmie, WA.
- Chemistry Education Research Graduate Student Scholar* June 10 – 11, 2011
Invited and awarded funding to attend NSF-supported conference. Miami University, Oxford, OH.
- Professional Enrichment Grant* Spring semester 2010
Department of Chemistry, Clemson University, Clemson, SC.
- Outstanding Graduate Student Research Award* Fall 2009 – Spring 2010
Department of Chemistry, Clemson University, Clemson, SC.
- Chemistry Education Research Graduate Student Scholar* June 5 – 7, 2009
Invited and awarded funding to attend NSF-supported conference. Miami University, Oxford, OH.
- Outstanding Graduate Student Teaching Assistant Award* Fall 2008 – Spring 2009
Department of Chemistry, Clemson University, Clemson, SC.
- Bannan Merit Scholarship* Fall 2001 – Spring 2003
College of Science & Engineering, Seattle University, Seattle, WA.
- Bellarmino Scholarship* Fall 1999 – Spring 2003
Presidential Scholarship, Seattle University, Seattle, WA.
- Outstanding Organic Chemistry Student of the Year* Fall 2000 – Spring 2001
Department of Chemistry, Seattle University, Seattle, WA.
- Outstanding Freshman Chemistry Student of the Year* Fall 1999 – Spring 2000
Department of Chemistry, Seattle University, Seattle, WA.

Departmental-Level Service

- General Chemistry Committee* April 2014 – Present
Member and chair (since September 2016) of committee focused on re-design of lecture and laboratory curriculum. Unofficial mentor to adjuncts assigned to teach general chemistry. Acting department and chair liaison for any concerns regarding general chemistry.
- Academic Advisor* September 2015 – Present
Mentor and advise undergraduate students in their academic and career goals during quarterly appointments.
- Chemistry Club Faculty Advisor* September 2015 – Present
Work with club president(s) to organize, schedule, and fund various club events.
- Search and Hiring Committee Member* Spring 2018; Fall 2017
Worked on hiring committees for department's instructor (Spring 2018) and lab manager, lab supervisor, and tenure-track faculty positions (Fall 2017).
- Research Advisor* September 2012 – June 2013
Supervised and mentored the senior synthesis literature project of a student interested in chemistry education research.

College-Level Service

- CSE Term Faculty Promotion Guidelines Committee Chair* Academic Year 2022/2023
Attend monthly meetings with the College of Science & Engineering Faculty Senate to recruit members to serve on a committee that will propose and write term faculty promotion criteria
- Health Professionals Evaluation Interviewer* June 2019 – Present
Once or twice per summer, complete an interview with a student applying for medical or dental school, writing an evaluative letter summarizing the interview for their application packet.
- Career Service's Natural Sciences Advisory Group* September 2018 – June 2020
Attend quarterly meetings with career services staff and other college faculty to discuss outreach opportunities offered by Career Services.
- Search and Hiring Committee Member* Winter – Spring 2018
Worked and collaborated with library faculty on hiring committee for a research services librarian that serves as college liaison.

University-Level Service

- University Non-Tenure-Track Committee Member* September 2021 – Present
College of Science and Engineering faculty representative on committee
- Seattle University Undergraduate Research Journal Faculty Advisory Board* Fall 2021
College of Science and Engineering faculty representative and reviewer of student articles
- New Faculty Institute Panelist* September and January 2021
Panelist for faculty development sessions intended for non-tenure-track faculty

Ignite Mentor September 2019 – June 2020
Mentor to incoming first-year or transfer student during their first year at Seattle U

SU PLAY Faculty Advisor September 2017 – Present
Work with club president(s) to organize, schedule, and fund various club events.

New Faculty Institute Panelist September 2017; September 2015
Non-tenure-track representative on reflection and Q & A panel intended for orientation of new undergraduate faculty.

Campus Ministry Illumination Retreat Faculty Panelist April 5, 2014
Faculty panelist on retreat for sophomores and juniors discerning their personal and professional trajectories.

External Service

ACS Exams Committee Summer 2018 – Spring 2019
Member of a national committee that developed a new set of quarterly general chemistry exams, working on item analysis and question selection for each quarter exam.