Lori A. Weeden

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Environmental, Earth & Atmospheric Sciences
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EDUCATION

PhD Candidate, Leadership in Education
University of Massachusetts Lowell
Expected completion, May 2029

MS, Boston College, 2002
Major: Geology and Geophysics
Thesis title: "Evidence for increased soil carbon and nitrogen accumulation under CO_2 enrichment."

BS, University of Massachusetts Lowell, 2000
Major: Environmental Science—Geoscience concentration
Honors Thesis: "Instrumental Neutron Activation Analysis of Lavas and Petrogenetic Models for the Lyttleton Volcano, New Zealand
Summa Cum Laude

BA, University of Texas Austin, 1988
Major: Studio Art—Painting and Drawing

POSITIONS HELD

- Jan. 2019 to present, Associate Chair of Undergraduate Programs for the Department of Environmental, Earth and Atmospheric Sciences
- Sept 2024 to present, Teaching Professor
- Sept. 2016 to Sept 2024, Associate Teaching Professor
- Sept. 2010 to Sept 2016, Assistant Teaching Professor
  University of Massachusetts Lowell
- Jan 2007 to May 2010, Adjunct Professor University of Massachusetts Lowell
- Sept 2008 to Dec 2008, Adjunct Professor Boston College

TEACHING

ATMO.1410	Weather and Climate	Service Course
ATMO.1430L	Weather and Climate Lab	Service Course
ENVI.1010	Environmental Science Seminar	Majors Course
ENVI.1100	Global Environmental Studies	Service Course
ENVI.1120L	Global Environmental Studies Lab	Service Course
ENVI.1200	Principles of Environmental Science	Majors Course
ENVI.1140	Natural Disasters	Service Course
ENVI.1140L	Natural Disasters Lab	Service Course
ENVI.2010	Earth Systems Geosphere	Majors Course

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ENVI.2030L	Earth Systems Geosphere Lab	Majors Course
GEOL.1010	General Geology	Service Course
GEOL.1030L	General Geology Lab	Service Course
GEOL.2150	Forensic Geology	Service Course
GEOL.3150	Environmental Geochemistry	Majors Course
GEOL.3170L	Environmental Geochemistry Lab	Majors Course
GEOL.3250	Geology for Engineers	Service Course

PUBLICATIONS

Weeden, L. (2026) *Global Environmental Studies*. Kendall Hunt Publishing.

Weeden, L. (2002) Evidence for increased soil carbon and nitrogen accumulation under carbon dioxide enrichment. *Boston College Dissertations and Theses*.

CONFERENCE PRESENTATIONS

Weeden, L. (2026) Is *Toxic Masculinity Killing Geosciences in U.S. High Schools and Higher Education?* Northeast section meeting Geological Society of America. Hartford, CT

Weeden. L. (2020) "How to Conquer the Fear of Change and Encourage Climate Change Action" UMass Lowell Climate Change Initiative Integrating Climate Change into the K-12 Classroom Professional Development Workshop

Weeden. L. (2019) "An Introduction to Climate Change Science" UMass Lowell Climate Change Initiative Integrating Climate Change into the K-12 Classroom Professional Development Workshop

Weeden, L (2019) What Does it Mean to be a Teaching Assistant in the Kennedy College of Sciences? Workshop presentation at UMass Lowell TA Orientation.

Weeden. L. (2019) "Service Learning in Environmental Geochemistry - The River Meadow Brook Project" 2nd Annual UMass Lowell Climate Change Initiative Integrating Climate Change into the K-12 Classroom Professional Development Workshop

Weeden. L. (2018) "Climate Change Science" UMass Lowell Climate Change Initiative Integrating Climate Change into the K-12 Classroom Professional Development Workshop

Lu, K. Sobkowitz-Kline, M. & **Weeden L. (2015)** *Becoming WISEr: Student Success for STEM Majors in Living-Learning Communities*. NEACUHO Annual Conference at WPI

Weeden, L.; Weiss, T.; & Winters, S. **(2015)** New England Section of the National Association of Geologic Teachers in conjunction with 2015 New England Intercollegiate Geologic Conference K-12 Teachers Workshop and Field Trip: Exploring New England Geologic History

Lu, K. & **Weeden, L. (2014)** *Building a Bridge: Partnerships with Faculty in Living Learning Communities.* ACUHO-I Conference, Kansas City, MO

Levey, C., Lu, K. & **Weeden, L. (2014)** "Building a Bridge: Partnerships with Faculty in Living Learning Communities" NEACUHO Annual Conference at Bridgewater State University

Weeden, L. (2013) "Vision Project Environmental Geoscience Summer Bridge Workshops" AAC&U Transforming STEM Education Conference, San Diego, CA Abstract published in AAC&U-Project Kaleidoscope: Transforming STEM Education: Inquiry, Innovation, Inclusion, and Evidence Program with Abstracts. p.28.

Weeden. L. (2013) "Service Learning in Environmental Geochemistry - The River Meadow Brook Project" UMass Lowell Teaching and Learning Symposium

Joseph, L. & **Weeden, L. (2012)** NSF "Service Learning in the Geosciences: Examples and Lessons Learned" NAGT Cutting Edge Workshop, Bozeman, MT

Weeden, L. (2012) NSF "Environmental Geoscience Summer Bridge Workshop: Preparing the Students for Success in Environmental Geoscience", NAGT Cutting Edge Workshop, Bozeman, MT

Weeden, L.A., Harrison, K.G., Kafka, A.L., Heumann, R.J. **(2002)** Evidence for increased soil carbon and nitrogen accumulation under CO_2 enrichment. American Geophysical Union Joint Assembly, Washington, DC, Abstract B52A-01.

Heumann, R.J., **Weeden, L.A.,** Kafka, A.L., Harrison, K. G. **(2001)** Using a FACE experiment to measure the amount of carbon transferred from the atmosphere to the soil because of CO_2 fertilization. American Geophysical Union Joint Assembly, Boston, MA, Abstract B42A-07.

Invited Talk:

Weeden, L. (2020) "My Mother was a Bartender in a Bowling Alley. We all have a story and this is mine" Honors College Speakers Series—UMass Lowell Honors College

Weeden, L. (2019) Conversations in Wellness for the Women's Wellness Initiative hosted by Alpha Sigma Tau Sorority

Weeden, L. (2019) Community Engagement from the University Perspective. Invited talk to UMass Lowell Chapter of MASSPIRG.

Weeden, L. (2018) "What is Service?" Presentation to Teaching Faculty in Kennedy College of Science

Weeden, L. (2015) "Building your UML Community for Life" TED talk UMass Lowell Resident Advisor training

Weeden, L. (2014) "Bowling, Painting, Flying and Hiking: the Convoluted Path of a Lecturer", Honors College Speakers Series—UMass Lowell Honors College

Weeden L. (2014) "It's OK to be a Woman in STEM". Middlesex Community College 10th Annual Women in STEM Luncheon, Lowell, MA

Weeden, L. (2011) "Take Ownership of your Education" UMass Lowell Women in Technology Day

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Professional Conference Attendance

- Northeast Section Meeting Geological Society of America, Hartford Connecticut, March 2026
- Northeast Section Meeting Geological Society of America – Virtual. March 2021
- National Association of Geoscience Teachers Annual Meeting – Virtual. December 2021
- National Association of Geoscience Teachers Annual Meeting – Virtual. December 2020
- American Meteorological Society Annual Meeting, Boston, MA, January 2020
- Northeast section meeting of the Geological Society of America, Portland, ME, March 2019
- Northeast section meeting of the Geological Society of America, Burlington, VT, March 2018
- Northeast section meeting of the Geological Society of America, Albany, NY March 2016
- NEACUHO Annual Conference at Worcester Polytechnic Institute, June 2015
- Northeast section meeting of the Geological Society of America, Bretton Woods, NH, March 2015
- ACUHO-I Conference, Kansas City, MO, October, 2014
- NEACUHO Annual Conference at Bridgewater State University, May 2014
- Northeast section meeting of the Geological Society of America, Lancaster, PA, March 2014
- Northeast section meeting of the Geological Society of America, Bretton Woods, NH, March 2013
- Northeast section meeting of the Geological Society of America Pittsburg, PA, March 2011

SERVICE

Department Service

Academic Advisor: Environmental Science and Climate Change and Sustainability Students
Climate Change and Sustainability Minor Students
Geology Minor Students

Faculty Advisor: Society of Environmental Scientists
MASSPIRG--UMass Lowell Chapter
Meditation club

Recent service:

- 2021 Northeast Section Meeting of Geological Society of America, Co-Chair session: "Technology-Driven Active Learning in the Geosciences"
- American Meteorological Society Centennial Conference, Boston, MA Organized and marketed EEAS department programs.
- American Meteorological Society Weather Fest Advisory Planning Board member: Helped organize and recruit organizations to present at this annual outreach. Organized and presented at EEAS Department Activity Table – Weather Bingo. Included EEAS student assistants.
- National Weather Service Skywarn Training Session, organized and attended.
- Co-Chair Session Geoscience Education, organized and planned session. Section

meeting cancelled due to COVID
- National Association of Geoscience Teachers Annual Meeting – Virtual. Attended meeting and discussed future activities.

Recent Academic Mentoring:
- 2021-22 Honors Research Project, Sophia Governo & Patsy Salazar "Greening an Urban Campus. Lowering Carbon Emissions with Green Roofs"
- 2021 Senior Seminar in Mathematics, Jack Johnson "Models of Ocean Acidification and Carbonate Ion Concentrations"
- 2021 Directed Study, Leah Leite, "Catalog of Sand Samples Under Magnification"
- 2020 Senior Seminar in Mathematics, Zachary Perna "An Evaluation of the Life-Cycle Assessment of Personal Vehicles"

Additional Advising:
- Advised Co-op scholars evaluating water chemistry of two local tributaries and posted results to publically accessible data base.
- EEAS laboratory up to date with recommended safety standards, Summer 2015.
- EEAS Alumni Representative 2013 to Present

Field Trip Planning:
Organized, planned--including finding sources of funding--, led, and wrote field trip guide for the following Department Field Trips

- Finger Lakes Region—May 2019 (24 students)
- Finger Lakes Region—May 2017 (21 students)
- Finger Lakes Region—May 2015 (13 students)
- Zion, Bryce & Grand Canyon—May 2013 (7 students)
- Finger Lakes Region—May 2011 (4 students)
- Grand Canyon—March 2009 (3 students)

Outreach:

- "What's up with the Weather?" Outreach to Dracut, MA elementary school third-grade assembly October 2019
- "Geology at the Mouth of the Merrimack River" Outreach to Sparhawk Charter School field experience at the mouth of the Merrimack River. Geology basics and garnet sand collection. October 2019.
- Fall 2019 American Meteorological Society Weather Fest Advisory Planning Board member:
- Helped organize and recruit organizations to present at this annual outreach.
- Organized and presented at EEAS Department Activity Table – Weather Bingo.
- Mentored boy scouts from Knox Trail, Nashua Valley, National, Western Massachusetts and Yankee Clipper Councils in MA, and Daniel Webster Council in NH as they earned their Boy Scout Geology Merit Badges March 2011 through 2019 (sessions from 2020 & 2021 cancelled due to COVID restrictions.)
- Mass Audubon Lowell Summer Camp Water Chemistry Demonstration and presentation 2013 to present.
- "Acid Mine Drainage and Basin Geochemistry" USA Science and Engineering Festival, Washington, DC, April 26 - April 27, 2014
- Bancroft Elementary School Geology Lesson Outreach 2010, 2011, 2013

- Alvirne High School, Hudson, NH, - "Careers in Environmental Science" September 2010

University Service

- Member of the Kennedy College of Science Diversity, Equity, and Inclusion Task Force Dec 2020 to present – chair for working student and students with family responsibilities focus groups.
- Advisory board for River Hawk Experience Distinction – Community Engagement Summer 2017 to present.
- Member of Undergraduate Policy Committee 2011 to May 2019
- Member of the Kennedy College of Science Curriculum Committee 2011 to present
- Member of Climate Change Initiative 2010 to present
- Member Sustainability Committee 2014 to 2016
- Developed and presented new interdisciplinary minor—*Climate Change and Sustainability* to Undergraduate Policy Committee and Faculty Senate. (Minor implemented Sept. 2014)
- Prepared Articulation Agreements between UMass Lowell and Northern Essex Community College, Middlesex Community College, Bunker Hill Community College and Quinsigamond Community College (*updated to Mass Transfer agreements February 2021*)
- Participated in Service Learning Assessment as part of the Vision Project Grant
- Developed and led summer and winter week-long, bridge workshops for Environmental Geoscience as part of the LSAMP and Vision Project Grants (January 2011, May 2012, January 2013, January 2014)
- Participated in Quality Collaborative Assessment as part of the Lumina Project Grant
- Participated in e-portfolio Assessment of Core Curriculum
- Provided de-identified student work for use in the Multi-State Collaborative project organized by SHEEO and the AAC&U
- Faculty Advisor to Women in Science and Engineering Living Learning Community (Fall 2013 to Summer 2015)
- Faculty Advisor-Harbor Master– UMass Lowell Navigators 2014 to present

Professional Service

- Conference Session Co-Chair "Geoscience Education", Northeast Section Meeting of the Geological Society of America (Virtual) March 2021
- Conference Session Co-Chair "Best Practices in Geoscience Education" Northeast Section Meeting of the Geological Society of America, Portland, ME, March 2019
- Conference Session Co-Chair "Geolore: Local Geology Field Trips Merge Geology and History to Motivate Students, Teachers, and Community Members to Explore Natural Areas" Northeast Section Meeting of the Geological Society of America in Burlington, VT March 2018
- Chair of Outstanding Earth Science Teacher Award for New England Section of NAGT 2018 – 2019
- Counselor to the New England Section of NAGT 2018 to present
- President New England Region National Association of Geoscience Teachers (NAGT) 2015-2017
- Conference Session Co-Chair "Service Learning in the Geosciences: Deep Learning through

Critical, Reflective Thinking and Civic Responsibility" Northeast Section Meeting of the Geological Society of America March 25, 2014 with Steve Winters of Holyoke Community College

- Conducted Survey of Environmental Science majors on behalf of InTeGrate—a division of the Science Education Resource Center (SERC). Funded by the NSF, February 2014
- Textbook Reviewer for Ryan, Peter (2014) "Environmental and Low Temperature
- Geochemistry", Wiley/Blackwell Publishing. Review submitted January 2013, book published 2014.

AWARDS AND GRANTS

Awards:

- SGA Exceeding Excellence Teacher Award, 2010 and 2013
- College of Science Service Learning Award 2013
- Student Organization Advisor of the Year 2015
- Office of Residence Life LLC Faculty Award 2015

Grants:

- Awarded Sustainability Engagement & Enrichment Development (SEED) Grant through UMass Lowell Office of Sustainability, *Climate Change in the High School Classroom—Science, Engineering, Health, & Politics. A Professional Development Opportunity for High School Teachers*. ($6,000)
- Awarded University Service Learning Mini Grant 2012-*Teaching Natural Hazards to Lowell Elementary Students*. ($1,200)
- Awarded University Service Learning Mini Grant 2011-*Service Learning in Environmental Geochemistry: The River Meadow Brook Project*. ($1,000)

PROFESSIONAL ORGANIZATIONS

American Geophysical Union
Geological Society of America
National Association of Geoscience Teachers
Massachusetts Association of Science Teachers
National Earth Science Teachers Association