# Profile of Laura McCullough

# Professor, Department of Chemistry and Physics University of Wisconsin–Stout 2022 Regents Teaching Excellence Individual Award Recipient

#### Highlights from nomination materials:

- Ph.D., Science Education, University of Minnesota; Master of Science, Physics, University of Minnesota; Bachelor of Arts, Physics, Hamline University, St. Paul, MN.
- Tenured faculty member in Department of Chemistry and Physics; for more than 20 years, has been a demonstrated leader of instruction focused on student academic and career success.
- Consistently uses student-centered pedagogy and engages in professional development and research to advance instructional techniques and to increase women in STEM fields (science, technology, engineering, and mathematics); research field is gender and science.
- Sustains her commitment to the discipline through ongoing scholarship, reviewing manuscripts for several national journals, giving presentations throughout the country, and serving on UW System's Women and Science Advisory Board for nearly 20 years.
- Co-team leader of the U.S. delegation to the International Conference on Women in Physics from 2019 to 2021.
- Since 2012, has adopted and adapted standards-based grading (SBG) in her teaching; this approach to grading requires students to demonstrate their understanding of learning objectives in physics. Built into SBG is a retake system. She writes: "In today's college, the goal for grades should be a demonstration of learning, not a comparison to other students."
- Through participating in national organizations and conferences, employs best practices to continuously
  improve instruction and foster student success. In alignment with UW-Stout's polytechnic tenets of applied
  learning, collaboration, and career focus, she maintains active memberships with the American Association of
  Physics Teachers, Wisconsin Area Physics Teachers, National Association of Research in Science Teaching, and
  the National Science Teacher Association to advance student success efforts.
- Select awards: UW-Stout, College of Science, Technology, Engineering, Mathematics and Management Outstanding Educator Award (2021); Homer L. Dodge Citation for Distinguished Service to the American Association of Physics Teachers (2019).

## In Laura McCullough's own words:

• "On the first day of class, I tell my students that I am not here to teach them physics; I am here to help them learn physics. It's all about them."

### In the words of colleagues:

- "While Dr. McCullough instructs all levels of physics courses, she is most passionate about teaching entry level
  physics. She desires to positively impact student critical thinking and the development of understanding at the
  onset of their college education. Her success is evident via strong enrollments in her courses and outstanding
  instructor evaluations as a reflection of her student-centered instructional practices."
  - —Glendalí Rodríguez, Provost and Vice Chancellor, UW-Stout
- "I have had the honor and privilege to work with Laura for the past 15 years. Throughout this time, I have benefited from Laura's wisdom in the classroom, have witnessed her passion towards the growth and development of her students, and have been empowered by her mentorship and leadership. She is a true asset to the classroom, our department, UW-Stout, and the University of Wisconsin System as a whole."
  - —J. Johanna (Jo) Hopp, Professor, Physics, Department of Chemistry and Physics, UW-Stout