

Amy S Rhoad

Curriculum Vitae

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Education

- Ph.D.** Animal and Veterinary Sciences. Department of Veterinary Sciences. Minor in Quantitative Research Methods. Department of Education. University of Wyoming. December 2020.
- B.S.** Molecular Biology/Environmental and Natural Resources. University of Wyoming. May 2014
- B.S.** Microbiology. University of Wyoming. May 2014

Teaching Experience

- **Internship & Scholarship Coordinator. Academic and Student Programs, College of Agriculture and Natural Resources. University of Wyoming.** Aug 2021-present
 - Oversee AGRI-4970 Internship course for general college internship.
 - Designed guidelines and syllabus for receiving college credit for external internships
 - Provide guidance and mentoring to students on career services including job search and assistance with application materials
 - Design and teach the Agricultural Communications Senior Capstone Project Course
 - Responsible for the instructional design for new Ranch Management and Agricultural Leadership Seminar Series.
 - Award and college scholarships, track application deadlines, manage awards through online systems
- **Graduate Teaching Assistant for Dept. of Veterinary Sciences Graduate Student Seminar in Bioinformatics. University of Wyoming** Aug 2020-Dec 2020
 - Taught 8+ graduate students enrolled in course. Seminar was also audited by several faculty members
 - Assisted in course design and implementation with a focus on bioinformatic programs and their uses in biological science research
 - Helped students both during and outside of course time to navigate the various bioinformatic activities and trouble-shoot problems as the arose.
- **Temporary Academic Lecturer of Medical Microbiology. Dept. of Molecular Biology. University of Wyoming** Jan 2020-May 2020
 - Taught a lecture section of 100+ students in Medical Microbiology
 - Designed lecture material to meet topic requirements designated by Molecular Biology Department
 - Implemented active learning in the form of group discussions, in-class activities and case study assignments.
 - Emphasized scientific literacy and communication through the implementation of a group literature review poster presentation

- **Instructor of record/Lab coordinator for General/Medical Microbiology Labs. Program in Microbiology. University of Wyoming** Aug 2018-May 2020
 - Oversaw the instruction of 4-7 lab sections per semester with over 200 students
 - Coordinated and mentored team of 8-16 undergraduate teaching assistants including weekly meeting to discuss upcoming content and best practices in teaching
 - Mentored and trained graduate teaching assistants to supervise individual sections
 - Adapted past curriculum and designed new active learning strategies to emphasize interpretation of data collected from experiments
 - Ensured laboratory safety protocol were taught and enforced by all graduate supervisors, teaching assistants, and students
 - Designed and oversaw lab content on University's learning management system
- **Graduate Assistant Laboratory Supervisor for General/Medical Microbiology Labs. Program in Microbiology. University of Wyoming** Sept 2016-Aug 2018
 - Directly supervised and instructed 1-3 sections of undergraduate students
 - Gave content lectures, taught standard microbiology laboratory techniques to students, and emphasize student learning of data interpretation and application to lecture and real-world content
 - Assisted in designing lectures and active learning strategies by designing assessment rubrics and introducing new activities including group discussions and check-ins
 - Assisted in coordinating and mentoring a team of 8-16 undergraduate teaching assistants
- **Temporary Academic Lecturer/ Lab Supervisor for General/Medical Microbiology Labs. Program in Microbiology. University of Wyoming** Jan 2016-May 2016
 - Directly supervised and instructed 2 sections of undergraduate students
 - Gave content lectures, taught standard microbiology laboratory techniques to students, and emphasize student learning of data interpretation and application to lecture and real-world content
 - Assisted with set-up for all student experiments and ensured media, culture and supplies were stocked and ready prior to the start of the sections

- **Teaching Assistant for General/Medical Microbiology Labs. Program in Microbiology. University of Wyoming** Jan 2012-May 2014
 - Assisted in instruction of 1 lab section of undergraduate students
 - Shared in the responsibility of giving content lectures to students
 - Assisted in answering student question and helped students understand experiment procedures and data interpretation
- **Teaching Assistant for Chemistry 1020. Dept. of Chemistry. University of Wyoming.** Aug 2012-Dec 2012
 - Instructed 1 lab section of undergraduate students
 - Helped students conduct experiments and follow lab manual procedure

Research Experience

- **Dissertation research in Animal and Veterinary Sciences. University of Wyoming.** Aug 2016-Present
 - Designed an experimental set-up using a mouse model to evaluate the host microbiome during a Toxoplasmosis infection
 - Used multiple metrics to analyze the disease severity of Toxoplasmosis in mice
 - Extracted DNA from fecal samples to evaluated microbiome
 - Performed bioinformatic analyses using Qiime2 and on sequenced data from fecal samples
- **Educational Research 5640 Intro to Qualitative Research Course Project. University of Wyoming.** Jan 2018-May 2018
 - Designed and implemented a qualitative research study on understanding the experiences of an undergraduate teaching assistant in an active learning lab setting.
- **Educational Research 5600 Descriptive Statistics Course Project . University of Wyoming.** Jan 2017-May 2017
 - Designed and implemented a survey on student perceptions of vertical course alignment in microbiology labs
 - Analyzed data of student responses to the various metrics used to measure student competence in microbiology labs
- **Molecular Biology 4050 Microbiology Capstone Course Project. University of Wyoming.** Jan 2013-May 2013
 - Worked to determine the impact different soil/fertilizer combinations had on nitrogen fixing bacteria in local community garden plots.
- **NSF Research Experience for Undergraduates student project. Dept. of Zoology/Physiology. University of Wyoming.** May 2012-Aug 2012
- Conducted a small scale experiment on how different aquatic microbial communities uptake DOC in response to changes in DOC source material.

- **Wyoming EPSCoR Undergraduate research project. Dept. of Zoology/Physiology. University of Wyoming** May 2011-Dec 2011
 - Conducted a small scale experiment on how additions of algal material, labile dissolved organic carbon (DOC) and phosphorus and nitrogen impacted the amount of river DOC taken up by river microbial communities

Fellowships, Internships and Workshops

- **LAMP Educators Learning Community. University of Wyoming** March 2020-Dec 2021
 - “Leaving the Light On”: a collaborative group study of student resistance to learning and ways to overcome this resistance
 - Designed and independent project to understand if case studies are effective in promoting critical thinking and application of content knowledge
- **Education Research Supervised Internship. College of Education. University of Wyoming** Aug 2018-Dec 2018
 - Semester long internship
- Co-taught the online course Intro to Research
- **Science Initiative Summer Institute Fellow. University of Wyoming** June 2017-May 2018
 - Year long immersive faculty development program
 - Learn to implement active learning strategies in science curricula
- **Bioinformatics Intensive Internship. National Center for Genomic Resources and New Mexico INBRE** June 19-30, 2017
 - Two week long intensive internship
 - Learn applications and uses of bioinformatic tools in biological applications

Work Experience

- **COVID Laboratory Technician II. Wyoming State Vet Lab. University of WY.** Feb 2021-June 2021
- **Aquatic Invasive Species Technician. Wyoming Game and Fish Department. Laramie, WY** April 2014-Sept 2016
- **Substitute Teacher. Albany County School District. Laramie, WY** Oct 2014-May 2016
- **Student Supervisor. Campus Recreation. University of Wyoming. Laramie, WY** Sept 2013-June 2014
- **Facility Employee. Campus Recreation. University of Wyoming. Laramie, WY** March 2010-Sept 2013
- **Planning Intern. Grand Teton National Park. Moose, WY** July-Aug 2013
- **Lab/Field Technician. Dept. of Zoology and Physiology. University of Wyoming. Laramie, WY** May 2011-May 2013

Publications/Presentations

- Session leader. “Using Case Studies to Teach Application and Assess Critical Thinking” Original Lilly Conference on College Teaching. Miami University. Oxford, Ohio. Nov 2021
- Graduate Poster Presentation and Student Speaker. NIH Idea Western Regional Conference. Las Vegas, NV Oct 2019
- Graduate Poster Presentation. INBRE Annual Conference. University of Wyoming. Laramie, WY April 2019
- Graduate Poster Presentation. Annual New Mexico BioInformatics, Science and Technology (NMBIST) Integrative Omics Symposium. Santa Fe, NM March 2019
- MOLB/MICR 2021 - Lab Notebook (2nd Edition). University of Wyoming Open Education Resources Jan 2019
- MOLB/MICR 2021 - Lab Notebook (1st Edition). University of Wyoming Open Education Resources Aug 2018
- Microbiology Capstone Poster Presentation. University of Wyoming. Laramie, WY May 2013
- Student Presenter at the annual Society for Freshwater Science. Louisville, KY May 2012
- Undergraduate Research Day. University of Wyoming. Laramie, WY April 2012
- General Microbiology Poster Presentation. University of Wyoming. Laramie, WY Dec 2010

Awards and Honors

- Y Cross Ranch Endowment 2018/19 Graduate Student Tuition & Fee Assistance Program Recipient Fall 2018
- University of Wyoming Alternative Textbook OER grant Summer 2018
- Mary Mead Graduate Scholarship for Women in Agriculture Brand of Excellence Scholarship 2017 Fall 2017
- Outstanding Building Supervisor for the year 2013-2014. Campus Recreations May 2014
- Amanda and Oscar W. Schmale Brand of Excellence Scholarship 2013 Fall 2013
- Recognized for contributions to Volunteer-In-Parks Program. NPS Dept of Interior Summer 2013
- Research Experience for Undergraduates fellowship. NSF Summer 2012
- Undergraduate Travel Award. Society for Freshwater Science. Spring 2012
- Wyoming EPSCoR Recipient Summer 2011, Fall 2011

- Dean's List. University of Wyoming Fall 2010, 2011, 2012, 2013
Spring 2013
- President's list. University of Wyoming Fall 2009, Spring 2011
- Participant in Keith and Thyra Thomson Honors Convocation for Freshman Honor Roll. Spring 2010

Professional Service

- Advisor to Ag Ambassadors Student Organization Nov 2021-present
- Student Ambassador. Advance Research Computing Center. Sept 2019-Dec 2019
- Paraprofessional. LJHS Nordic Skiing. Albany County School District Dec- Feb 2015
- Peer Mentor for Microbiology Capstone Course. Dept. of Microbiology. University of Wyoming. Jan- May 2014
- SI leader for General Microbiology. Dept. of Microbiology. University of Wyoming Aug - Dec 2013

Volunteer

- Volunteer for Wyoming Area Health Education Center Summer Camp June 2017, June 2018
- Volunteer for University of Wyoming Women in STEM May 2017, May 2018, May 2019
- Volunteer for Kids Fishing Day June 2013
- Volunteer for Rebuilding Hope in New Orleans in association with Habitat for Humanity. Jan 2012
- Trip Leader assistant to Andros Island, Bahamas for environmental and educational study June 2010, 2011, 2012
- Volunteer for National Public Lands Day 2006, 2007, 2008
- Volunteer for Audubon Christmas Bird Count 2006, 2007, 2008