

# IMPORTANCE OF COURSE-BASED RESEARCH

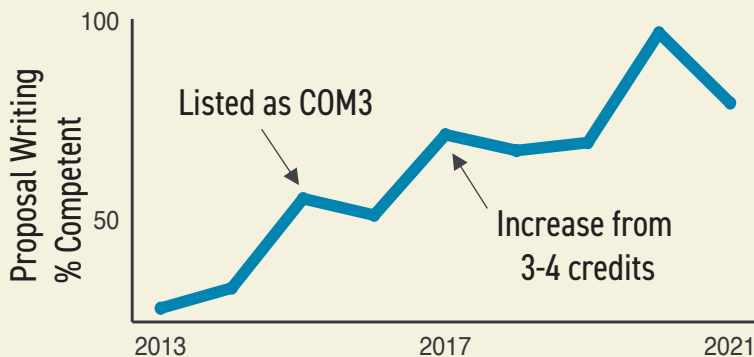
The Microbiology Capstone Course began as a pilot project in 2013, offering 7 ambitious students independent research credit to complete a course-based research experience. Capstone has since grown and gained university recognition, receiving an official listing and fulfilling COM3 USP requirements in 2015. Over 8 semesters between 2013-2021, a total of 80 students have partnered with a range of community partners including ACRES farm, the Downtown Clinic, Wyoming Public Health Labs, and the Wyoming Department of Environmental Quality (DEQ). In collaboration with these partners, students conceptualize, propose, perform, and present research addressing problems experienced by the partners. Over the years we have collected a variety of data to support the assessment and growth of the Capstone course. These data include individual scores on proposals, community partner evaluations, external expert evaluation of poster presentations, interviews with former students, and records from small group instructional diagnoses (SGIDs) in which both students and instructors separately describe the aspects of the course that are going well, and those areas of concern. These data, demonstrate the importance of courses like Capstone, and areas for improvement.

## STUDENTS GAIN RELEVANT PROFESSIONAL SKILLS & INTERNAL GROWTH

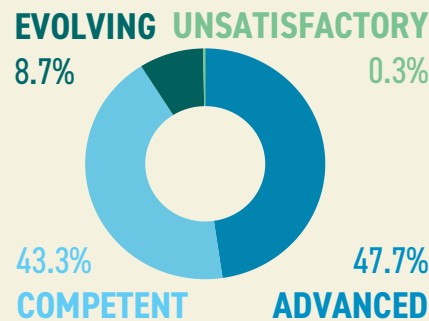
Skills such as teamwork, time management, and leadership that were necessary for success in Capstone are also skills that I have been able to apply directly in my job every day.<sup>1</sup>

Perhaps the greatest lesson of Capstone I learned, was that failure is a large portion of science and research ... Each time you fail, you learn how to fail better and move closer towards the elusive target that is a solution.<sup>1</sup>

## COURSE CREDIT GIVES STUDENTS PERMISSION TO PRIORITIZE



## STUDENTS EFFECTIVELY COMMUNICATE THE RESEARCH PROCESS



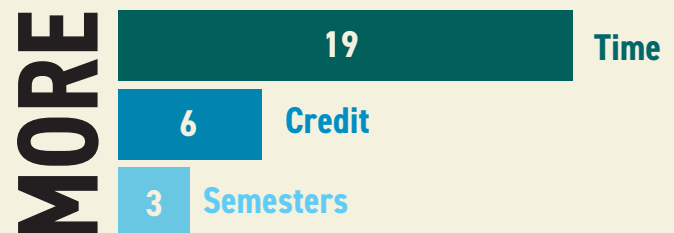
External subject matter experts rated **91%** of final poster sections as competent or advanced!

## COMMUNITY PARTNERS ALSO BENEFIT FROM COLLABORATION

**100%** Community partner satisfaction

*"The students communicated their findings effectively and left us with some thoughts on future studies and management techniques"-DEQ*

## STUDENTS WANT MORE



\*number of SGIDs in which students discussed topic (20 total)