

Science Teaching and Outreach (STO)

College of Natural Science and Mathematics

Department of Biology and Wildlife (<https://www.bw.uaf.edu/>)
907-474-7671

STO F401 Communicating Science

2 Credits

Offered Spring Even-numbered Years

This highly interactive course allows students to gain hands-on experience designing and practicing science communication for public audiences.

Over the course of the semester, students will design three science communication efforts and present their own science to peers. Students will also explore relevant communication theories and current topics.

Prerequisites: Junior or Senior standing.

Stacked with STO F601.

Lecture + Lab + Other: 2 + 0 + 0

Grading System: Letter Grades with option of Plus/Minus

STO F601 Communicating Science

2 Credits

Offered Spring Even-numbered Years

This highly interactive course allows students to gain hands-on experience designing and practicing science communication for public audiences.

Over the course of the semester, students will design three science communication efforts and present their own science to peers. Students will also explore relevant communication theories and current topics.

Prerequisites: Graduate standing.

Stacked with STO F401.

Lecture + Lab + Other: 2 + 0 + 0

Grading System: Letter Grades with option of Plus/Minus

STO F602 Mentoring in the Sciences

2 Credits

Offered Fall Even-numbered Years

Effective mentoring can be learned, but not taught. Good mentors are normally produced through years of practice, successes and failures, and no two mentoring situations are alike. This course provides a forum for graduate students to develop their mentoring philosophy and build effective mentoring skills.

Prerequisites: Graduate Standing.

Lecture + Lab + Other: 2 + 0 + 0

Grading System: Pass/Fail Grades

STO F603 Instructional Design

1 Credit

Offered Fall Odd-numbered Years

This graduate seminar course will address important components of course planning and instructional design that reflect best practices in science teaching. This course focuses on the overall design of courses, the integration of the various components of a course, the development and implementation of objectives, assessments and syllabus construction.

Prerequisites: Graduate standing.

Lecture + Lab + Other: 1 + 0 + 0

Grading System: Letter Grades with option of Plus/Minus

STO F604 Science Teaching and Outreach Internship

4 Credits

Offered As Demand Warrants

Under the supervision of a faculty member, students gain professional experience in science teaching or communication by choosing one of the following strands: 1) higher education, 2) science communication, or 3) informal education. An internship plan is developed before enrollment and agreed upon by the instructor, faculty mentor and student.

Prerequisites: STO F666 for higher education strand or STO F601 for science communication or informal education strand.

Lecture + Lab + Other: 0 + 0 + 12

Grading System: Pass/Fail Grades

STO F666 Scientific Teaching

2 Credits

Offered Spring Odd-numbered Years

This course explores methods for teaching science at the university level. We emphasize methods of course design, instructional techniques, assessment and course management that have been shown by research to improve student learning. This course is intended for graduate students in the sciences who have an interest in teaching methods.

Prerequisites: Graduate standing.

Lecture + Lab + Other: 2 + 0 + 0

Grading System: Letter Grades with option of Plus/Minus

STO F692P Current Topics in Scientific Teaching

1 Credit

This graduate seminar course explores current trends in science education at the pre-college and college levels. Topics may include diversity, technology, active learning and others. The course will rely on readings from primary literature and discussion.

Prerequisites: Graduate standing.

Recommended: STO F601 or STO F666.

Lecture + Lab + Other: 1 + 0 + 0

Grading System: Pass/Fail Grades