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 outreach by choosing one of the following strands: 1) higher education, 2) formal K-12 education, or 3) informal education. An internship plan is developed prior to enrollment and agreed upon by the instructor of record, faculty mentor or K-12 teacher mentor, and student.
Prerequisites: STO F666 for higher education strand or STO F601 for formal K-12 education 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
Offered Alternate Fall
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 F666 or STO F601.
Lecture + Lab + Other: 1 + 0 + 0
Grading System: Pass/Fail Grades