

Instructor: Trent Sutton
Contact Information : tmsutton@alaska.edu 474-7285
Office Location: URSA Office, 302E Eielson
Office Hours for Students: By appointment

Course Readings/Materials:

How to Mentor Undergraduate Researchers; can be found at the Council on Undergraduate Research (CUR) website (<http://www.cur.org>).

Course Description:

Undergraduate research refers to collaboration in original research and/or creative activity between an undergraduate student and a faculty member, leading to work which is presentable to scholars in the field. Projects or scholarly activity may be an element of the faculty member's current emphasis or could be initiated by the student. Undergraduate Research and Creative Scholarship II offers opportunities for student project work in advanced topics beyond typical undergraduate course offerings. Students must meet with the course instructor in the previous semester to identify a mentor (if one has not already been identified). Enrolled students will write a project report and create a poster presentation of their project by the end of the semester. Research areas range across all disciplines. To be allowed to enroll for this course, students must have a substantial level of discipline-specific background, at a level commensurate with having achieved junior or senior standing at UAF.

Course Goals:

Involvement in research or creative/scholarly activity can be an important ingredient in a successful and satisfying undergraduate program. Undergraduate research and scholarly activity gives students an opportunity to discuss projects with faculty mentors, participate in ongoing projects, write a report on the findings, and present a poster. As a research university, UAF strives to communicate to undergraduate students how research and scholarly activity is conducted. Accordingly, the course goals of URSA 488 are that students learn, through direct research and/or creative activity experience, how discipline-specific knowledge is created and how to communicate results in oral, written, and/or performance formats.

Student Learning Outcomes:

The intended outcomes of URSA 488 are that students learn, through direct experience, how discipline-specific knowledge is created and how to communicate research results in oral, written, and/or performance formats. Specifically students will learn:

- 1.! Tools, skills, and techniques specific to the discipline that encompasses their project;
- 2.! Critical thinking skills leading to ability to engage in research and creative activity, to interpret results, and to formulate future questions and directions;

3. Communicate research motivations and proposed work in oral, written, poster, and performance formats.

Instructional Methods & Course Activities:

Course Meetings Meetings with the instructor will be held on an ad hoc basis throughout the semester. At the start of the semester, the URSA course instructor will establish contact with the student and the mentor to determine the project and any need for safety and training. This contact will be maintained throughout the semester via a shared Google drive (described below) so the URSA instructor can provide resources and ensure progress.

Course Projects The course project should be envisioned as a body of work that could lead to a public presentation or performance or perhaps even a publication in a discipline-specific journal. Work completed during the semester will include a substantial component of experiential learning so the student has the opportunity to develop and apply an understanding of the concepts grounded in the primary scholarly literature.

Finding a project The majority of URSA 488 students select their project and research mentor by the time they enroll in the course. When this is not the case, students must meet with the instructor by the second Friday of the semester to identify a mentor.

Number of credits Credits are assigned at the beginning of the semester when students enroll, but may be subject to change as the result of consultation between the student and professor. Two credits of URSA 388 are reserved generally for literature research or small computational projects. In general, three credits provide an absolute minimum amount of time to accomplish a laboratory or field-based project. Four credits may be appropriate if the student has a large ongoing project with plenty of available time. Six credits of URSA 488 are acquired by students who enroll in URSA 388 for multiple semesters. Each credit of 488 corresponds to an average weekly minimum of three hours working productively in the laboratory/field/studio plus one to two hours additional work on the project (e.g., planning, interpretation, notebook writing and background reading).

Paper: Students are required to submit a final report summarizing the project. The student's mentor(s) will offer guidance in this endeavor. One option to share the paper is to create a Google drive document shared with the mentor. The creation of an outline follows with headings such as: Introduction (background and significance of the project, what exactly are you doing?), Activities or Methods, Products or Results, Discussion (either conclusions based on results obtained, anticipated impact of the project and/or specific learning outcomes that have benefitted the student), References (if appropriate). Once the outline is generated and shared with the course instructors and each student's mentor(s), students will begin fleshing out the sections. The Activities or Methods section is usually the easiest place to start, followed by the Introduction and Products or Results. If a References section is included, populate it as you write each section. Write the Discussion section last. The student's mentor(s) will comment on the developing paper on a regular basis, providing feedback and guidance throughout the semester.

Suggested Course Calendar of Assignments:

| Course week | Course Assignment |
|-------------|---|
| Week 1 | Students and mentors receive the syllabus |
| Week 3 | Write a brief paragraph in the introduction identifying the central question or challenge of the project, create their shared Google drive document, and include appropriate headings |
| Week 4 | Create subheadings within the or Activities or Methods section that identify each step of your project |
| Week 5 | Create subheadings within the introduction section that identify the topics you will cover to explain the background (how did your project concept arise) and significance (why is it important to conduct your project what is its anticipated impact) |
| Week 6 | Add more detail to the Activities or Methods and the Introduction sections |
| Week 7 | Add a list of figures or images to include in your Products or Results section briefly describing each |
| Week 8 | Create subheadings within the Products or Results section that identify the outcomes of your project; add more detail to the Products or Results section |
| Week 9 | Create subheadings within the Discussion section |
| Week 10 | Add more detail to the Discussion section |
| Week 11 | Create the poster presentation of your project |
| Week 12 | Review, revise, and add more detail to all sections of your paper |
| Week 14 | Review, revise, and polish your paper |

- I. Failure to comply with university directives;
- J. Misuse of alcohol or other intoxicants or drugs;
- K. Violation of published university policies, regulations, rules, or procedures; or
- L. Any other actions that result in unreasonable interference with the learning environment or the rights of others.

This list is not intended to define prohibited conduct in exhaustive terms, but rather to set forth examples to serve as guidelines for acceptable and unacceptable behavior.

Honesty is a primary responsibility of you and every other UAF student. The following are core guidelines regarding academic integrity:

1. Students will not represent the work of others as their own. A student will attribute the source of information not original with himself or herself (direct quotes or paraphrases) in compositions, theses, and other reports
3. No work submitted for one course may be submitted for credit in another course without explicit approval of both instructors.

Alleged violations of the Code of Conduct will be reviewed in accordance with procedures specified in regent's policy, university regulations and UAF rules and procedures. For additional information and details about the Student Code of Conduct, contact the Dean of Student Services or web www.alaska.edu/bor/ or refer to the student handbook that is printed in the back of the schedule for each semester. Students are encouraged to review the entire code.

A Few Words on Plagiarism: In general, DO NOT present someone else's ideas or data as your own. You are expected and required to give credit where credit is due. Plagiarism is a violation of the law and may lead to serious repercussions! Please follow the following guidelines: for any written assignments, if you use someone else's ideas, data, or other information, write it in your own words and include the reference in parentheses directly following that information. Avoid copying someone else's text. If, however, you feel you have to include an exact copy of that text, put it in quotation marks followed by the reference in parentheses. Of course, include all cited references in the Literature Cited section. During oral presentations, please acknowledge the sources by mentioning their name(s) and year of publication or by printing them on overheads, slides, or handouts. Be aware that you need to cite earlier work by yourself. Any substantial use of any written or other materials that was used for another course or that was generated in any other circumstances is not accepted for credit in this course. Only minor contributions from earlier work with appropriate citation(s) will be accepted.

Withdrawal Students are expected to formally withdraw from the class if they cannot complete the course; they will not be automatically withdrawn by the instructor or their research mentor if they do not attend or fall behind. Students who do not successfully complete the class and do not withdraw will receive a grade of F.

Student Responsibility As students, you must accept the responsibility of ensuring your own success. It is your responsibility to know what you need to do and when you need to do it. This requires a great deal of initiative on your part. Always ask if you don't know what is expected of you. Never wait for someone to tell you. "I didn't know," and "No one told me," are not acceptable reasons for not fulfilling your student obligations. I am here to help and support students who take the initiative to

themselves.

Evaluation:

Students will receive a letter grade based on their performance on course assignments.

| Assignment | Percentage Contribution to Final Grade |
|---|--|
| Participation (assessed in consultation with research mentor and based on consistent reliable presence in the mentor's laboratory or other work area) | 10 |
| Poster Presentation | 40 |
| Final Paper | 50 |

Students will be graded on a straight percentage basis: 90-100% is an A, 80-89.9% is a B, 70-79.9% is a C, 60-69.9% is a D, and < 60% is an F. Students will not be graded on a curve. This means in principle, it will be possible for everyone to get an A in this course. Grades will be assigned by the faculty mentor and then relayed to the course instructor at the end of the semester.

Support Services:

URSA 4

URSA 4