

Preliminary Syllabus:

URSA 488

Undergraduate Research and Creative Scholarship II

Spring 2018

Course Information:

Title: Undergraduate Research and Creative Scholarship II

CRN Number: 34153

Instructor: Trent Sutton, PhD

Contact Information: tmsutton@alaska.edu; 474-7285

Office Location: URSA Office 301 Bunnell

Office Hours for Students: by appointment

Course Readings/Materials:

How to Mentor Undergraduate Researchers Council on Undergraduate Research (CUR)

<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 may be an element of the faculty member's work 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. Enrolled students will write a project report and create a poster presentation of their project. Research areas range across all disciplines. A substantial level of discipline-specific background, a level commensurate with having achieved junior or senior standing, is assumed.

Course Goals:

Involvement in research can be an important ingredient in a successful and satisfying undergraduate program in biology. Undergraduate Research gives students a chance to discuss research projects with faculty members, participate in ongoing projects in research laboratories, write a research report and present a research 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 experience, how discipline-specific knowledge is created and how to communicate research results in oral, written and performance formats.

Student Learning Outcomes:

The intended outcomes of URSA 488 are that students learn, through direct research experience, how discipline-specific knowledge is created and how to communicate research results in oral, written and 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, to interpret results and to formulate future questions and directions
3. to 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 other training. This contact will be maintained throughout the semester via a shared Google drive document (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 done during the semester will include a substantial component of experiential learning so the student has the opportunity to develop and apply an understanding of in-depth concepts grounded in the primary scholarly literature.

Finding a project The majority of URSA488 students select their project and research mentor at the time they enroll in the course. When this is not the case, students **MUST** meet with the instructor by Feb 5, 2016.

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 is reserved generally for literature research or small computational projects. In general, 3 credits provide an absolute minimum amount of time to accomplish a studio-, laboratory- or field-based project; 4 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 388 for multiple semesters. Each credit of 488 corresponds to an average weekly minimum of 3 hours working productively in the laboratory/field/studio, plus 1-2 hours additional work on the project (planning, interpretation, notebook writing and background reading).

Paper: Students are required to submit a final report summarizing their project. The course instructor and each student's mentor(s) will offer guidance in this endeavor. The first step is to create a Google drive document shared with the mentor and the instructor. The creation of an outline follows with headings such as: Introduction (background and significance of the project, what exactly are you doing and why), 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 include it, populate it as you write each section. Write the Discussion section last. The course instructors and each student's mentor(s) will comment on the developing paper on a regular basis, providing feedback and guidance throughout the semester. Final copies of the report are to be submitted (via email) to the course instructor no later than 5 PM on Thursday May 9, 2016. Reports must be well-written and comprehensive. Although oral presentations, poster presentations, and journal article co-authorship are valuable, they do not substitute for the student writing a comprehensive report.

Poster Presentation Students must prepare a poster presentation of their project. The usual size is 36" x 48", but other sizes may be appropriate if the student will be presenting a poster at another venue. A template and rubric for poster presentations are included at the end of this syllabus. A template will be provided by email at the student's request or the mentor may have their own template, the image at the end of this syllabus is for your reference only.

Writing Assignments To assist students in making consistent progress in this course, they are required to work on their paper weekly, again in the shared Google drive document. Suggested weekly assignments are listed in the table below. Reminders and guidance will be emailed to students. STUDENTS SHOULD CHECK THEIR UAF EMAIL ADDRESS AND THEIR SHARED GOOGLE DOCUMENT DAILY!

Course Calendar of Assignments:

Course week of	Course Assignment
Aug 28	Students and mentors receive the syllabus
Sept 8	write a brief paragraph in the introduction identifying the central question or challenge of the project, create their shared Google drive document, and insert appropriate headings
Sept 15	create subheadings within the or Activities or Methods section that identify each step of your project
Sept 22	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)
Sept 29	add more detail to the Activities or Methods and the Introduction sections
Oct 6	add a list of figures or images to include in your Products or Results section, briefly describing each
Oct 13	create subheadings within the Products or Results section that identify the outcomes of your project; add more detail to the Products or Results section
Oct 20	create subheadings within the Discussion section
Oct 27	add more detail to the Discussion section
Nov 3	create the poster presentation of your project
Nov 10	review, revise, and add more detail to all sections of your paper
Nov 17	review, revise, and polish your paper
Dec 1	submit your poster and paper

7. Course Policies:

Safety All research students must complete safety training. This may involve several online training presentations (with quizzes that you must pass). Contact your department's Safety Coordinator to arrange for training before beginning your project.

Safety Tips While Safety Coordinators will provide a thorough review of safety issues, and you will hopefully have gained safety knowledge in previous courses, here we emphasize several important points. Project work must be carried out with all due caution. Do not work alone. Wear safety gear as suggested. Do not rush. Do not attempt a procedure without the necessary training. Familiarize yourself with the potential hazards of materials you are using. Use common sense. This is a learning experience, so do not be bashful about asking for assistance.

Attendance In consultation with your mentor, establish a regular schedule of attendance in the mentor's laboratory or other work area. You may also be asked to attend a regular research meeting with your mentor and other students held weekly or periodically during the semester. Regular attendance is required. You are expected to attend all classes. Classes will be held during the first

two weeks of the semester. The purpose of these classes is to assist students in identifying research mentors and insure each student completes any training required for research participation in their chosen discipline.

If you are required to participate in: military; UAF-sponsored activities; or documented, necessary participation in cultural activities that will cause you to miss a class, you must notify me as soon as possible. You must notify me of all scheduled UAF-required absences for the semester (e.g. athletic events) during the first week of classes.

Research Hours The total number of hours spent working on the project (both time in and away from your mentor's laboratory or other work area doing background reading, data production and analysis, or poster and report preparation will vary between students and projects. Spend all the time necessary to complete the proposed project and facilitate the poster and report presentation required at the end of the semester. As a rough guide, students should spend an average minimum of 9 hours per week.

Student Conduct As a UAF student, you are subject to the Student Code of Conduct (<http://www.uaf.edu/ses/student-resources/conduct/#condu>). In accordance with Board of Regents' Policy 09.02.01, UAF will maintain an academic environment in which the freedom to teach, conduct research, learn, and administer the university is protected. Students will enjoy maximum benefit from this environment by accepting responsibilities commensurate with their role in the academic community. The principles of the Code are designed to facilitate communication, foster academic integrity, and defend freedoms of inquiry, discussion, and expression among members of the university community. You should become familiar with campus policies and regulations as published in the student handbook.

UAF requires students to conduct themselves honestly and responsibly, and to respect the rights of others. Conduct that unreasonably interferes with the learning environment or that violates the rights of others is prohibited. Students and student organizations will be responsible for ensuring that they and their guests comply with the Code while on property owned or controlled by the university or at activities authorized by the university.

Disciplinary action may be initiated by the university and disciplinary sanctions imposed against any student or student organization found responsible for committing, attempting to commit, or intentionally assisting in the commission of any of the following prohibited forms of conduct:

- A. cheating, plagiarism, or other forms of academic dishonesty;
- B. forgery, falsification, alteration, or misuse of documents, funds, or property;
- C. damage or destruction of property;
- D. theft of property or services;
- E. harassment;
- F. endangerment, assault, or infliction of physical harm;
- G. disruptive or obstructive actions;
- H. misuse of firearms, explosives, weapons, dangerous devices, or dangerous chemicals;
- 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 common guidelines regarding academic integrity:

- Students will not collaborate on any quizzes or exams that will contribute to their grade in a course, unless permission is granted by the instructor of the course. Only those materials permitted by the instructor may be used to assist in quizzes and exams.
- 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.
- No work submitted for one course may be submitted for credit in another course without the 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 class 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. Also 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 will not be 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 failure to fulfill your student obligations. I am here to help and support students who take the initiative to help 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 and reliable presence in the mentor's laboratory or other work area)	10
Completion of Assignments (regular, weekly progress of the paper shared on Google Drive)	36
Poster Presentation	18
Final Paper	36

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 that, in principle, it will be possible for everyone to get an A in this course.

Support Services:

Students in need of support are encouraged to contact me via telephone. I have posted office hours and am available for group and private face to face meetings during the specified times. All college classes require strong reading and communication skills. There may be a student support program in your area. **If you feel that you may be falling behind, contact me immediately.** I want you to be successful. Never be afraid to ask for help.

Disabilities Services:

The Office of Disability Services (208 WHIT, 474-5655) implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. I will work with the Office of Disabilities Services to provide reasonable accommodation to rural students with disabilities. Please contact me or The Office of Disability Services if you require special assistance.

URSA 488 Undergraduate Research and Creative Scholarship I
 Poster Template also available at www.uaf.edu/ursa

QUICK DESIGN GUIDE
 --THIS SECTION DOES NOT PRINT--

PowerPoint 2007 template problems: a 30"x40" standard poster. It will save you valuable time by saving, updating, text, and graphics. It is create your presentation.

Online tutorials at:
http://libby.uaf.edu/ursa/ursa_ppt
 and paste the link into your web browser.

Object Placholders

The placholders provided below to add new items to your poster. Drag a placholder onto poster area, size it, and click it to edit.

Logo Placholder

If this preformatted section header placholder in the poster area to add another section header. Section headers to separate topics or concepts in your presentation.

Section Header Placholders

If this preformatted text placholder to the poster area to add a new body of text.

Image Placholder

If this graphic placholder onto your poster, size it, and click it to edit.

Picture Placholder

Poster images are available on our Blackboard. Go to Blackboard and click on **9999** to

Click here to add the poster title
 Click here to add authors
 Click here to add authors

LOGO

LOGO

(click to edit) **CONCEPT OUTLINES**
 Top 10 or place graphic here

(click to edit) **PRELIMINARY WORK**
 Top 10 or place graphic here

(click to edit) **TECHNIQUES OR METHODS**
 Top 10 or place graphic here

(click to edit) **ACKNOWLEDGMENTS**
 Top 10 or place graphic here

(click to edit) **INTRODUCTION or BACKGROUND**
 Top 10 or place graphic here

(click to edit) **GOALS or OBJECTIVES**
 Top 10 or place graphic here

(click to edit) **ACKNOWLEDGMENTS or CONTACT**
 Top 10 or place graphic here

QUICK TIPS
 (--THIS SECTION DOES NOT PRINT--)

The PowerPoint template requires basic PowerPoint (Version 2007 or newer) skills. Below is a list of commonly asked questions, specific to this template. If you are using an older version of PowerPoint, some template features may not work properly.

Using the template

Verifying the quality of your graphics

Go to the VIEW menu and click on ZOOM to set your preferred magnification. This template is at 100% the size of the final poster. All text and graphics will be printed at 100% their size. To see what your poster will look like when printed, set the zoom to 100% and evaluate the quality of all your graphics before you submit your poster for printing.

Using the placholders

To add text to this template, click inside a placholder and type in or paste your text. To move a placholder, click on it (about the select it), place your cursor on its frame and your cursor will change to this symbol: Then, click, drag and drop it to its new location where you can resize it as needed. Additional placholders can be found on the left side of this template.

Modifying the layout

This template has four different column layouts. Standardized your mouse on the background and click on "Layout" to see the layout options.

The columns in the provided layouts are fixed and cannot be moved but advanced users can modify any layout by going to VIEW and then FULL SCREEN.

Importing text and graphics from external sources

TEXT: Paste or type your text into a pre-existing placholder or drag it in a new placholder from the left side of the template. Move it anywhere as needed.

PICTURES: Drag in a picture placholder, size it (drag, click in it, and insert a photo from the menu, CTRL+V). You can copy and paste a table from an external document onto this poster template. To adjust the way the text fits within the cells of a table that has been pasted, click on the table, click on "TABLE" button from click on "TEXT BOX" and change the INTERNAL MARGIN values to 0.25

Modifying the color scheme

To change the color scheme of this template, go to the "Design" menu and click on "Colors". You can choose from the provided color combinations or you can create your own.

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URSA 488 Undergraduate Research and Creative Scholarship II

Example Poster Rubric

	Yes (excellent)	Somewhat (adequate)	No (inadequate)
Audience Can someone outside the field understand the findings? (e.g. language, diagrams, etc.)			
Audience Will the poster hold the attention of people in the field?			
Purpose Does the poster present the significance behind the research inquiry?			
Purpose Does the poster provide relevance of the topic presented?			
Purpose Does the poster present the topic and findings in a clear, concise, and succinct manner?			
Conventions Is sufficient information presented and in the appropriate format of the specific discipline? (e.g. references, headings, methods, images, etc.)			
General Features Is the poster engaging and professional? (e.g., pulls you in, visible from a distance, invites you to read more, free of punctuation, grammar, and spelling errors, etc.)			
General Features Do the figures/graphics support and enhance the content of the poster?			
Your presentation of your poster will not be graded but these are evaluation criteria:			
Presentation Is the poster presenter comfortable and engaged when interacting with viewers and answering questions?			
Presentation Does the poster presenter convey enthusiasm and confidence?			