AVS 401: Capstone in Animal Science I

Instructor
Dr. Sue Ishaq (she/her); sue.ishaq@maine.edu, 207-581-2770, office: 108 Rogers Hall.
I do not have pre-scheduled office hours, but I am happy to meet anytime to answer questions or help you navigate your project. You can book me in Google Calendar using this link.

Time and mode of instruction
Tuesday/Thursdays.

Location
106 Murray Hall, campus map, accessible entrance located at the front of the building.
All classes may be attended in person or virtually on Zoom, though in person is preferred.

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Description of course and prerequisites

Students will draw together the knowledge and experiences they have gathered in their undergraduate program to create a Capstone experience. This takes the form of a project which reflects the culmination of their degree and the work typical of their academic field of study. Students will participate in collaborative research as part of the class, or opt to identify a faculty mentor to supervise their project, which investigates a problem in animal or veterinary science, aquaculture, or a related field. The investigation may include scientific research in a laboratory, farm, or field site; literature review; meta-analysis; survey; design problem solving; or other hypothesis-driven testing. For this course, students are required to submit a written experimental proposal describing their project and the process of testing and assessment, and present an oral report to faculty and students. AVS 401 and 402 collectively serve as the Capstone experience for Animal and Veterinary Sciences students. This course fulfills a Writing Intensive requirement.

Credit hours: 2
Prerequisites: Junior standing, and pre- or co-requisite ENG 315 or ENG 317.

Course materials and digital services used.

- Textbook: There is no required textbook for this class.
- Lecture slides: All lectures are provided at the beginning of the semester as pdfs with annotated speaker notes included as comments in the document. These will be updated as needed with corrections.
- Lecture recordings: All lectures are recorded, and audio-only and video files added to Brightspace after class.
- Readings: Reading material will be provided as electronic journal articles or readings.
- Assignments: All assignments can be submitted through Brightspace, and each assignment portal has more detailed instructions, grading rubrics, and the proposal assignment has an optional document template.
- Brightspace Online Learning Software
  - Log into Brightspace. Read the tutorial. Download the Pulse app.
  - Brightspace is the online learning management system used at the University of Maine. In our course Brightspace site, you will be able to access course materials, assignment descriptions, this syllabus, and the course schedule. You will submit your work through Brightspace and will be able to access your grades and feedback as well. You can download a "Brightspace Pulse" app for most mobile devices from your regular app store. Be aware: Some functions in Brightspace work better when accessed through a laptop/desktop than through a mobile device. Support for the website and mobile apps includes video tours, IT Help Desk, and other resources. If you continue to have problems with Brightspace, please let me know as soon as possible.
  - If you wish to retain a personal copy of course materials, please do so before the end of the semester. You will not have access to a course's Brightspace site after you complete the course. You can store copies of material you wish to retain on Google Drive, your hard drive, or other media of your choosing. Other materials posted by your faculty may be found at the library.
- Zoom Online Conferencing Software
  - Read the UMaine tutorial.
  - Zoom is an online conference software that students can use to attend class remotely as needed. Students may invite friends and family to watch their presentation using Zoom.

I am happy to provide accommodation to the way course materials are formatted or provided to make them easier to access and understand. Please let me know if you have suggestions to improve the course materials.
Course goals
The student will complete a written project proposal for a real/planned or a hypothetical research project. The proposal will explain the project objectives and the context behind the proposal, and present the proposal to faculty and students. Students completing the general education area of Capstone experience will be able to:

1. Synthesize knowledge, skills, and dispositions gained throughout the student’s major of study.
2. Demonstrate competence within the discipline through professional conduct and, as appropriate, critical reasoning, analytical ability, and creativity.
3. Demonstrate effective communication skills.

Student learning outcomes and objectives to meet them:
At the conclusion of this course, students will have the skills to perform the following numbered tasks. Course objectives specific to each learning outcome are provided as lettered explanations.

1. How to find and assess the quality of scientific information.
   a. In assembling background information about their topic, students will learn how to perform a search of scientific databases, how to read scientific literature, and how to assess information for validity and generalizability.
   b. In peer-reviewing other student research proposals, students will learn how to peer-reviews manuscripts, including reviewing, editing, and scientific critique.

2. How to create a research proposal.
   a. Students will learn how to write a short, informal summary of their project.
   b. Students will learn how to write a scientific project proposal, including how to format documents according to a pre-specified scientific format.
   c. Students will learn how to incorporate instructor and peer-review comments and revisions, and how to progress the maturity of concepts and writing with each successive draft. (Writing Intensive objective)
   d. Students will learn how to explain their process and controls to ensure the project is rigorously designed, how to present information in a logical and scientific manner.
   e. Students will learn how to build a citation database and use it to create relevant in-line citations and a bibliography.

3. How to conduct research.
   a. Through their participation in research under the guidance of the instructor or another faculty mentor, students will learn broadly about scientific research, including ethical standards and institutional approval, identifying research questions and hypotheses to test, designing robust experiments which incorporate experimental controls to test the hypotheses, data collection and curation, data analysis and evaluation, statistical validity, and interpretation of results.

4. How to present scientific information.
   a. Students will learn how to present a short, informal summary of their project.
   b. Students will learn how to create an oral presentation using software tools and present to a technical audience.

Project selection
The project should reflect the University of Maine Capstone experience goals:
1. The experience must be of significant depth and require innovation, creativity, reflection and synthesis of prior learning.
2. The experience must result in a thesis, report, presentation, or performance that demonstrates mastery of the subject matter.
3. Faculty/student interaction should be an integral part of the experience.
4. The minimum student effort in the capstone should reflect the equivalent of three credits of work.
5. Interdisciplinary experiences and opportunities for group participation in the capstone experience should be encouraged.

Re-using other research projects.
The Senior Paper research topic should not be the same as that required for any other regular course, but:
- Students performing research for the UMaine Student Symposium organized by the Center for Undergraduate Research (CUGR) can use the same research for these classes.
- Students in the Honors Program can use their honors research project to satisfy the proposal requirements of AVS 401 and will present their results as part of the requirements for AVS 402. “An Honors Thesis (HON498 and HON499) on an approved AVS topic and advised by an appropriate faculty member is able to be used as a student’s project in the AVS capstone courses. Students must still enroll and participate in the AVS capstone courses (AVS 401 and AVS 402), but they are able to dually use their Honors thesis project, both in the capstone courses as their capstone project, as well as to fulfill their Honors requirements. The thesis proposal form must also be approved by the Director of the School of Food and Agriculture.”

Students will be presented with a list of possible projects that can be carried out in the short time that we have available, or you can suggest your own project area and title. Projects suggested by students will require the instructor or another research mentor to approve the project scope.

Working with animals or humans
Research projects that involve sampling or data collection from vertebrate animals will need Institutional Animal Care and Use Committee (IACUC) approval and you will need to complete the required IACUC training on the Humane Care and Use of Animals, which is available on their website. The IACUC protocol review form should be completed by the student with the assistance of a faculty mentor and submitted to IACUC as early as possible in the semester. If your training is more than four years old, you must complete the new training ASAP. Instructions are available on the IACUC website under "Required Training."

Research projects that involve human subjects or data collection from humans will need IRB approval (Institutional Review Board for the Protection of Human Subjects). Senior research projects conducted within the framework of the senior capstone experience are considered research and must be reviewed and approved by the IRB. For questions, contact the IRB Office.
Expectations of students and university policies

Attendance and Participation
Students are expected to attend lectures, but it is understood that life often precludes this and that students may be performing field work or are located off-campus. Students may attend class virtually, through Zoom, which will be offered for each class. Students who will miss a significant number of classes, or who require additional accommodation, may contact me to make alternate arrangements. Students who are lactating or caring for young children may bring them to class (see section on Pregnancy, lactation, and parenting).

Students are expected to participate in discussions in class, or on Brightspace. I strive to create inclusive discussions, but if students still find it challenging to participate, please notify me and I will alter the discussion format as needed. Supporting inclusion and community is an active process that involves both invitation, and support to ensure that the learning community is and remains an equitable and inclusive place. Students are expected to conduct themselves in a professional, courteous manner and abide by university policies.

Late Assignments
I will accept assignments for a certain period after the due date, however, the assignments in this class build on one another and their due dates are specifically set to help you achieve the end goals of this class. You will not receive a grade reduction for late assignments, but you waive the right to receive feedback which might impact the quality of successive drafts and your next grade. Regular assignments will not be accepted after the last day of class and the final draft will not be accepted after the finals period of the semester. If you cannot complete all assignments within the semester, please contact me about taking an Incomplete instead of a letter grade and setting up deadlines to complete the coursework after the semester in order to receive a letter grade.

Campus Policies
“The University of Maine is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender expression, national origin, citizenship status, age, disability, genetic information or veteran’s status in employment, education, and all other programs and activities.” Follow the links for more information.

Students Accessibility Services Statement*
Academic Honesty Statement*
Course Schedule Disclaimer*
Observance of Religious Holidays/Events*
Sexual Discrimination Reporting (Long)*
Sexual Discrimination Reporting (Short)*
UMaine Land Acknowledgement

Students Accessibility Services (SAS) Statement
If you are requesting an accommodation to the course or assignments, please contact SAS, 121 East Annex, (207) 581-2319, as early as possible in the term. Students who have already been approved for accommodation by SAS and have a current accommodation letter should contact me as soon as possible.
### Assignments and Assessment: Detailed instructions (written and audio) and rubrics on Brightspace.

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<thead>
<tr>
<th>Not graded</th>
<th><strong>Self-assessments (Discussion boards)</strong> – After each class, there will be a Self-assessment discussion post to complete on Brightspace. These are not graded but will help you generate ideas and items that you can use to form your other graded assignments.</th>
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<tr>
<td>15 points (5 pts each)</td>
<td><strong>Assignments and Quizzes</strong> – In class group assignments, or quizzes online. Read a short document provided in the quiz and answer a few questions to test your understanding. Quizzes are on Brightspace, are not timed, and may be taken twice. Quizzes are auto graded, contact me if you feel there has been an error.</td>
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<td>10 points, 1 pt each</td>
<td><strong>Research Compliance Trainings</strong> – Take online trainings for research compliance through UMaine, which are required by any student/employee performing research. There are 10 modules available which can be taken at your own pace at any time: 1. UMaine Students Responsible Conduct of Research (<a href="https://umaine.qualtrics.com/jfe/form/SV_2m1pzwlmySqlYOx">https://umaine.qualtrics.com/jfe/form/SV_2m1pzwlmySqlYOx</a>) - will take 2.5 hours 2. in Mainestreet in UMS Academy: Basic Safety; Information Security; Conflicts of Interest; Diversity, Equity, and Inclusion; FERPA; UMS ICT Accessibility Awareness Training; Sexual Harassment Prevention; Title IX Training; Active shooter response</td>
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| 5 points | **Project summary (abstract)** – The Abstract is a short, easy-to-read summary of the project. You will use this Abstract in successive drafts of your proposal, so revise as needed. This should include:  
  - The (draft) title of your project  
  - The list of researchers on the project, including you, your mentor if you have one, and any other students or people directly involved.  
  - A 200 - 300 word paragraph summary of the project which must include 1 - 2 sentences describing each of the following:  
    - What you are studying and what the problem is,  
    - The long-term and short-term goal,  
    - the research question being posed and your hypothesis,  
    - objectives  
    - a brief or vague explanation of the methods or analysis to be used,  
    - and the impacts or the anticipated results of the project. |
| 4 points (5 pts for outline, 15 pts for second draft, 15 pts for final draft) | **Project proposal** – A proposal describes the research you will do, how you will set up your experiment/information collection, what you will do with it, and what you hope to get out of it. Even if you have already completed the research, you will write the proposal as if you are describing what you will do in the future. This proposal is to be written as if you were trying to obtain grant funding to support this research. Information on the structure and content of different types of project/grant proposals will be given in class, and detailed instructions on what information to include and how to format your proposal, examples, and grading rubrics are available on Brightspace.  
  - Outline: Include the proposal Abstract you already wrote, and then outline your project to start organizing the flow of your document. You will receive detailed instructor feedback. |
• Draft 1: Include more information and begin refining the content of your proposal. Give more detailed information on the background, your research question, your methodology, and what you think will happen. You will receive detailed instructor and peer review feedback, but this draft won’t be graded (see peer review, below).
• Draft 2: Now that you have incorporated feedback, submit the more polished version for grading and for broad instructor feedback.
• Final draft: This will be a polished version of your proposal. You will not receive detailed instructor or peer feedback.

Since this is a writing intensive class, these drafts will be returned to you as quickly as possible for revision and resubmission by the end of semester. For each successive submission, students will incorporate revisions from their faculty advisor, the instructor, and for two of the drafts, the peer review comments. The proposal in AVS 401 will form the basis of the final paper in AVS 402, thus any effort now means less effort needed later.

15 points for doing it, 5 points for submitting your proposal for review

Peer review – Students will perform three reviews of other students’ research proposal draft one. Details on performing a review will be provided in class, but generally reviewers should comment on how well the information is presented: if the proposal makes sense, if the objectives of the study are clear, if the scientific approach is easy to understand, and if you notice spelling, grammatical, or formatting errors.

5 points

Elevator Speech – Give a 2-3 min (timed), non-technical summary of your project or topic. You can use notes, but do not prepare slides or visuals. The goal of the elevator speech is to describe your project conversationally, to get someone interested.

10 points

Final proposal presentation – Give a 3 - 5 minute oral presentation of your project proposal to the class at the end of the semester, using just one slide. You may have presenter notes. You must submit a copy of your slide to Brightspace, and the presentation will be graded live.

Your speech should include the title, your name and your mentor’s name if you have one, a quick description of the problem and who might be helped by the results of this research, and what aspect the project will focus on trying to solve. You need to give an overview of what the project will look like, what info or samples you will be collecting and how they will help you answer your research question, and you should mention the methods you’ll be used to analyze info/samples.

Your slide can include anything, such as images, a video, or text (try not to have only text). The slide should help enhance the understanding of your speech.

Grading (out of 100 points): A = 93–100; A− = 90–92; B+ = 87–89; B = 83–86; B− = 80–82; C+ = 77–79; C = 73–76; C− = 70–72; D+ = 67–69; D = 63–66; D− = 60–62; F = 0–59. The completion of both AVS 401 and 402 with grades of C minus or higher is required for graduation.
Schedule of lectures and assignments.
Each section is one class, and all the associated materials (lecture notes, readings, assignments, assessments, links) are included in a Brightspace module which corresponds to the name of the lecture and the order they are presented in.

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<th>Title, Description, Assignments for each module</th>
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<td>T 1/17</td>
<td>Lecture 0: “Intro to the class”, syllabus and course expectations, finding course materials.</td>
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| T 1/17 | Lecture 1: “What is research?”  
An introduction to the scientific method, different types of research and literature.  
- **Reading**: Schwartz_2008_feeling_stupid_in_science, ~990 words.  
- **Self-assessment discussion post discussion post**: List one strategy or place to go to find help if you feel stuck, lost, or confused in this process.  
- **Self-assessment discussion post discussion post**: List one way you might use research in your life or future careers even if you won’t be scientists. This will help you get started on your Project Roles section of your research proposal. |
| R 1/19 | Lecture 2: “How to build a research project.”  
What are common types of research, how did I get started on projects, brainstorming hypothetical project ideas as a group.  
- **Self-assessment discussion post**: List three broad topic areas that you might be interested in researching  
- Recommended video (choose 1) on combining science with other aspects of your identity. Links to videos on Brightspace (~1 hour each):  
  - “*Deconstructing the individual: how science can materially advance using queer and feminist theory*”, Dr. Patricia Kaishian, PhD  
  - “*20 important questions in microbial exposure and social equity + recent work on urban greenspace microbiomes*”, Dr. Jake Robinson, PhD  
  - “*Decomposition as Life Politics*”, Dr. Kristina Lyons, PhD  
  - “*An Indigenous Micro- to Meta-Narrative: Microbes and Social Equity*”, Dr. Nicole Redvers, ND, MPH  
  - WeTalkScience podcasts (15 – 30 min each) about life as a scientist, [https://wetalkscience.com/](https://wetalkscience.com/) |
| Week 2 |                                               |
| T 1/24 | Lecture 3: “How to form a research question.”  
Where research funding comes from, why we have them, and the anatomy of a research proposal, how do we start forming research questions, hypotheses, and goals. In class activity.  
- **Reading**: Roberts_2021_better_numbers_through_ethnography  
- **Video**: “Using the library resources.”, Anne Marie Engelsen, Sept 2020, former Science Librarian at Fogler Library at UMaine. ~ 1 hour 10 min.  
- **Self-assessment discussion post**: List three hypothetical research questions you would be interested in working on. You are not required to pick one of these, this exercise is to help you get started. |
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<th>Date</th>
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| R 1/26 | Lecture 4: “In-class assignment: Let’s build the perfect sandwich” | We will co-write proposals to build the perfect sandwich. We will start as a class and then break into groups of ~3. Can be done in class, on Zoom, or asynchronously on your own. This should be ~1.5 pages in length, and can be bullet points or sentences for each of the bolded headings.  
- **Assignment** (5 points), submit your Perfect Plan to Brightspace, if you worked in a group, each person should submit that same copy.  
- **Reading/Video**: r4_AVS401_reading_scientific_articles_2022 pdf and mp4 on Brightspace  
- **Self-assessment discussion post**: Name one strategy you will try to use to help you read scientific articles |
| Week 3 | Lecture 5: “Experimental design.” | Composing a proposal, with the focus on experimental design, background, hypotheses, goals, aims, and objectives. In class activity.  
- **Reading**: “Examples of Previous Capstone Proposals” on Brightspace  
- **Self-assessment discussion post**: List at least three topics or general things you would need to explain in your Background/Introduction section to help someone understand your project.  
- **Self-assessment discussion post**: List one technology, method, technique, protocol, or strategy that you might use to gather information during your research. This will get you started on the Methods section of your research proposal. |
| R 2/2 | Lecture 6: “Reducing bias through good experimental design” | How to balance experimental designs, identify controls, reduce selection bias, and integrate equity into human research design. Will feature an in-class activity.  
- **Reading**: Pannucci_2010_avoiding_bias_science  
- **Quiz (5 pts)**: “What is plagiarism?” Available on Brightspace, recommended time ~ 30 min of time but is not timed, have 1 week to complete.  
- **Self-assessment discussion post**: List at least three possible anticipated results or outcomes of your study, assuming that everything goes as planned. This will get you started on the Anticipated Results or Outcomes section of your research proposal. |
| Week 4 | Lecture 7: “Project management.” | More on composing a proposal, with the focus on timelines, project roles, information dissemination and outreach. How to show you can handle this project/role. Will feature an in-class activity.  
- **Reading**: Cheruvilil_2014 Creating_collaborative_research_teams  
- **Recommended Reading**: Bennett_Gadlin_2012_collaboration_team_science  
- **Self-assessment discussion post**: Think about what expertise is needed to help you on your project, and consider collaborating with other students. This will get you started on the Project Roles section of your research proposal. |
| R 2/9 | Lecture 8: Identifying stakeholders and funding sources. |
Research funding is competitive, so you need to demonstrate a need for that research and an audience who will benefit from it.

- **Reading:** r8_Neef-Neubert_2011_StakeholderParticipationInAgriculture
- **Self-assessment discussion post:** List at least 1 group/entities/organizations that might be impacted while this work is being conducted or samples are being collected, and how. Is there a way you could minimize negative impacts? This may include the animals or humans you are working with, the personnel or other people at research sites, or people who work in an industry that may be interested in your research. If you are doing a literature review with low impact, this could include your roommates who are sharing internet access with you. This will get you started on the Information Dissemination and Impact section of your research proposal.

- **Self-assessment discussion post:** List at least 1 group/entities/organizations that might be impacted by the possible results or outcomes of this study and how. Who might be helped by this? This will get you started on the Information Dissemination and Impact section of your research proposal.

### Week 5

**T 2/14**  
**Lecture 9:** In class workshopping of project ideas, experimental design, and more. Bring your project ideas and questions and we will work through them in class together. There is also a discussion board space on Brightspace to facilitate giving each other feedback.

- **Reading:** “Module 3: Elements of Research”, U.S.DHHS [https://ori.hhs.gov/module-3-elements-research](https://ori.hhs.gov/module-3-elements-research)
- **Suggested Reading:** check out the example documents of a research proposal for federal funding, to give you an idea of how all the pieces come together.
- If you are going to be a paid UMaine student employee for this project, or if you are funded by federal or UMaine grants for this project, there are online trainings the university requires you to complete. Descriptions and Links to trainings are provided on Brightspace.

**R 2/16**  
**Lecture 10:** In-class workshopping time, write an elevator speech.

- **Assignment:** come up with a 2 - 3-min Elevator Speech/Project Pitch to give next week in class. If you don’t have your project finalized, give an overview of your research interests and how it might relate to your future career.

- **Reading** (video or pdf): “Giving a scientific presentation”, recorded lecture on Brightspace
- **Reading:** “How to give a dynamic scientific presentation”, Marilynn Larkin, Aug 4, 2015.  
  ~2300-word blog post. [https://www.elsevier.com/connect/how-to-give-a-dynamic-scientific-presentation](https://www.elsevier.com/connect/how-to-give-a-dynamic-scientific-presentation)

### Week 6

**T 2/21**  
- **(Lecture 11) Assignment due in class (5 pts):** Elevator Speech

**R 2/23**  
- **(Lecture 12) Assignment due in class (5 pts):** Elevator Speech

### Week 7

**T 2/28**  
**Lecture 13:** “How to write an abstract.”

Tips on writing a great abstract that can help you focus while writing the rest of your proposal, followed by an in class working session where we workshop our ideas, write our abstracts, and get feedback from each other.

- **Assignment due (5 pts):** Project Abstract, submit to Brightspace by midnight

**R 3/2**  
Lecture 14: Getting specific about data collection
As a group discussion, we will go over various ways of collecting information and how to get started on creating a protocol or methods section. In class activity.

- **Reading**: “Module 4: Methods of Information Collection”, U.S. DHHS, [https://ori.hhs.gov/module-4-methods-information-collection](https://ori.hhs.gov/module-4-methods-information-collection)
- **Reading**: “Module 5: Handling Information”, U.S.DHHS, [https://ori.hhs.gov/module-5-handling-information](https://ori.hhs.gov/module-5-handling-information)

### Week 8

**T 3/7**  
**Lecture 15**: “Scientific writing and reviewing.”  
Exactly what it sounds like. How to go about condensing information from many sources, citations styles, manager software, and info on peer-reviewing. Together in class, we will start writing our outlines, talk through our ideas, and get feedback from peers.

- **Quiz online (5 pts)**: “Types of scientific writing” Available on Brightspace, recommended time ~ 30 min but is not timed, have 1 week to complete.

**R 3/9**  
**Lecture 16**: *In class workshopping of project ideas*, experimental design, and more. Bring your project ideas and questions and we will work through them in class together. There is also a discussion board space on Brightspace to facilitate giving each other feedback.

- **Assignment due (5 pts)**: Outline of the proposal, submit to Brightspace by midnight
- **Required reading (video)**: r16_AVS401.ethical.research (on Brightspace)

### Week 9

**T 3/14**  
No class – spring break

**R 3/16**  
No class – spring break

### Week 10

**T 3/21**  
**Lecture 17**: *In class workshopping time: writing an IACUC or IRB application*  
Together as a class, we’ll go through an IACUC application and steps to proposing animal research, and then an IRB application, and proposing human-related research, and getting approval from UMaine on and off campus.

  ~1000-word blog post.  

- **Reading (video)**: r17_Portalatin.UMaine.research.Compliance. This recorded lecture describes ethical research and presents info on how to go about getting research approval if your project will need it. Featuring guest lecture by Paula Portalatin, Office of Research Compliance at UMaine. Institutional review, ethical conduct, and study guidelines.

- **Action Item (if relevant)**: Perform online training for IRB or IACUC if your project involves human/animal subjects. Checklist on Brightspace.

**R 3/23**  
**Lecture 18**: *Now what? Finding a project for AVS 402.*  
We will talk about how to manage your project after the semester, planning for AVS 402, and how to reach out to research mentors if you will be working with someone on a project.  
Guest lecture from UMaine student scholarship funds

- **Readings**:
  - “Tips to Find a Quality Research Mentor”, UC Denver, pdf online  
    or [https://www.ucdenver.edu/docs/librariesprovider134/default-document-library/tips-to-finding-a-quality-mentor.pdf?sfvrsn=d22e95b9_2](https://www.ucdenver.edu/docs/librariesprovider134/default-document-library/tips-to-finding-a-quality-mentor.pdf?sfvrsn=d22e95b9_2)
  - “How to ask someone to mentor you”, Yale, [https://your.yale.edu/work-yale/learn-and-grow/career-development/mentoring/how-ask-someone-mentor-you](https://your.yale.edu/work-yale/learn-and-grow/career-development/mentoring/how-ask-someone-mentor-you)
“How to ask your mentor for help”, Javid Jamae, [https://medium.com/@javidjamae/how-to-ask-a-mentor-for-help-646a57e7b6c6](https://medium.com/@javidjamae/how-to-ask-a-mentor-for-help-646a57e7b6c6)

- Optional reading: AVS401_other_parts_of_proposals, available as pdf or video
- **Optional Action item:** If you plan on working on a mentored project, reach out to potential research mentors with similar research topics. A draft email is available on Brightspace for you.

### Week 11

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<th>Activity details</th>
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<tbody>
<tr>
<td>T 3/28</td>
<td>In class guest presentations from faculty or grad students.</td>
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</table>
| R 3/30 | In class guest presentations from faculty or grad students.  
- **Assignment due (5 pts):** Proposal draft 1 (a more polished but not finished draft) for peer review. Submit to the Google Workspace page for this class, which can be accessed through Brightspace. Putting them on Google Docs means that all the proposals are visible to the rest of the class and it is easy for everyone to make comments.  
- **Assignment (15 pts):** Peer review starts now, due by April 7. Choose three proposal drafts to read, and add comments or suggested edits to those three Google docs. When you are done, write up a short paragraph for each of the proposals you read, in which you describe the proposal, what you liked best, and what you thought could be improved. Detailed instructions for making comments and for writing summaries can be found on Brightspace. You have one week to make comments and submit the summaries to Brightspace. |

### Weeks 12 -15

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity details</th>
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<tr>
<td>T 4/4</td>
<td><strong>Student proposal presentations in class (15 pts) from now until end of semester</strong></td>
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| R 4/6  | **Student proposal presentations in class**  
- **Assignment due:** Peer review comments due on Google Docs, and summaries due on Brightspace, by midnight. |
| T 4/11 | **Student proposal presentations in class**  
- **Assignment due (15 pts):** Proposal Draft 2 (for grading), submit on Brightspace by midnight |
| R 4/13 | **Student proposal presentations in class** |
| T 4/18 | **Student proposal presentations in class** |
| R 4/20 | **Student proposal presentations in class** |
| T 4/25 | **Student proposal presentations in class** |
| R 4/27 | **Student proposal presentations in class** |
| F 4/28 | **Last day of classes and last day late assignments will be accepted (not including the final draft)** |
| R 5/5  | **Finals week**  
- **Assignment due (20 pts):** Final Draft of Project Proposal Due by midnight. |

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**UMaine resources related to research, statistics, writing, and careers:**

- Career Center, [https://umaine.edu/career/](https://umaine.edu/career/); help with resumes, applications for vet/grad/med school, interviews, and job negotiations  
  - Biomedical specialist: Samantha M. Wheeler, M.Ed., CCSP, GCDF (she, her, hers), Career Counselor, STEM/Health Professions, Career Center, University of Maine, 300 Memorial Union, Orono, ME 04469, Work: 207-581-2587; samantha.wheeler1@maine.edu  
- CUGR research fellowships, [https://cugr.umaine.edu/fellowship-opportunities/](https://cugr.umaine.edu/fellowship-opportunities/), money for salary or supplies  
- Fogler Library
There is always someone on campus to help you

My door is always open and I am always willing to help students, however, as a university employee I am also required to keep the community safe by disclosing information on crimes. This means I am a “mandatory reporter”. If you disclose something to me, including in assignments, I am obligated to provide this information to the campus Title IX office. The Title IX Office will contact you discretely, and offer you support services, guidance, and help you choose if you want to take action.

For confidential resources on campus:
- Counseling Center: (207) 581-1392
- Cutler Health Center: (207) 581-4000.
- Rape Response Services: 1-800-871-7741
- Partners for Peace: 1-800-863-9909.

For support services on campus which may have to report the incident to others who can help:
- (Emergency and nonemergency) Title IX Student Services, (207) 581-1406,
- (emergency and non-emergency) University of Maine Police: (207) 581-4040 or 911.
- (non-emergency) Office of Community Standards: (207) 581-1409.

Support services off campus:
- Mabel Wadsworth Center, Bangor: reproductive health care, abortion, addiction help, etc.

Free food and clothing
- Black Bear Exchange’s Food Pantry, Orono campus
- Old Town Crossroads Ministry

University Rainbow Resource Center
The Rainbow Resource Center located in Memorial Union, Room 224, empowers and increases the visibility of Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) people by promoting equality and inclusiveness. We strive to maintain an open, safe, and supportive environment for students, staff, faculty and alumni and provide educational opportunities, information, and advocacy services.

Pregnancy, lactation, and parenting
I am happy to provide accommodation for students based on pregnancy, lactation, and parental needs, as well as work with the Office of Equal Opportunities (E.O.). The state of Maine and UMaine policies allow students to breastfeed in any space, including in class. If a lactation space is required, please contact E.O. for arrangements. The Pregnant on Campus Initiative provides pregnancy and parenting resources in Orono.

University of Maine | Dr. Sue Ishaq; sue.ishaq@maine.edu, 207-581-2770
University Veterans Education and Transition Services (VETS)
University of Maine’s VETS Center serves student veterans as they apply to, attend and advance beyond UMaine. The Veterans Center connects student veterans with the resources they need to successfully transition from combat to classroom to career. This includes help navigating the admissions process, applying for financial aid and U.S. Department of Veterans Affairs education benefits, academic assistance and preparing to re-enter the workforce. The VETS Center is located in Room 143 of the Memorial Union.

University Counseling Services
If you are experiencing a mental health emergency: Dial 911. You can also call campus Police Services at (207) 581-4040. For urgent help, please check this page for your options: https://umaine.edu/counseling/need-urgent-help/.

Over the course of our time at the University, we may face a variety of concerns – depressed mood, anxiety, stress, family concerns, body image, substance use, sexuality and many others – that may interfere with their ability to focus on their studies. Counseling Services provides mental health and social support for all currently enrolled students. Staff follow strict legal and ethical guidelines concerning the confidentiality of counseling. Counseling services is located in Cutler Health Center, Room 125 and can be reached by phone at (207) 581-1392.

Acknowledgement
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