

GEN 4930 CK2- Section 001
Senior Seminar, course syllabus Spring 2023

INSTRUCTORS: Dr. Haiying Liang, hliang@clemson.edu

LECTURES: A106 Poole Agricultural Center on Mondays 2:30-4:30 pm

OFFICE HOURS: Virtual. Email for appointment and Zoom link.

CRITICAL THINKING STUDENT LEARNING OUTCOMES

This class is a Clemson Thinks2 (CT2) seminar –developed to increase and enhance your critical thinking skills.

- (1) Explore complex challenges associated with sustainable landscape design, installation and maintenance.
- (2) Analyze sustainable design problems using multiple lenses and perspectives.
- (3) Extrapolate from one conceptual context to others in the sustainable landscape.
- (4) Develop creative solutions to complex challenges.
- (5) Communicate complex ideas effectively.

OBJECTIVES:

This is a finishing course for professional scientists. The dissemination of information to the scientific community is an important aspect of research. It is imperative that scientists be able to critically analyze their own results and those of others, but also to give cohesive presentations on their own research. The objectives of this course are three-fold: 1) to learn to critically read and evaluate scientific literature; 2) to learn to give a well-organized scientific presentation; 3) to gain further experience in scientific writing. Students will give individual presentations, evaluate peer presentations, and write summaries and discussions of research articles.

ATTENDANCE:

Attendance is mandatory. There will be a reduction of 1 point (out of a total of 15 points) for each unexcused absence in addition to any penalties incurred by a failure to turn in any work due that class period. If for any reason the instructor is late for the start of class and you have not received official indication that the class has been canceled, students are expected to remain for 15 minutes before "assuming" that the lecture has been postponed or cancelled for that day.

Excuses for missing class or leaving early must be approved by the instructor prior to class. If you develop flu/Covid symptoms the day of class and cannot attend, e-mail the instructor as soon as possible and you must provide medical documentation in order receive an excused absence.

Allowable excuses

1. You are sick. You must bring a doctor's note stating that you were too sick to attend class virtually.
2. You are at the funeral of a member of your family.

3. You have a conflicting University, College, or Department function. You must provide an authorized excuse prior to the class.
4. You have an interview for medical, dental, graduate, or some other postgraduate opportunity. You must provide a copy of your itinerary prior to the class.

COURSE GRADING:

Item	Percentage
Partner presentation	20%
Individual presentation	20%
Summary for individual presentation	10%
Summary for partner presentation	10%
Participation/questions/evaluations	10%
Attendance	15%
G&B Departmental seminar summary	5%
Global engagement participation	5%
Literature in Genetics	5%

Final grade:

A: >=90; B: 80-89; C:70-79; D:60-69; F:>60

PRESENTATIONS:

Each student will give two seminars, one with a partner and one solo. The presenter(s) must answer questions in the subsequent class discussion of the articles. The presentations are expected to be 45 - 55 minutes each. The presentation will have three main parts: an introduction, analysis of experimental methods and results, and discussion of the research overall, including additional insights and future directions of the research.

Presenters are expected to do the necessary background reading required to understand the article to be presented and provide an appropriate introduction on the topic, including background information and the purpose of the research in the article presented. A simple rehash of the introduction in the paper is insufficient. The presenter must not only read and understand the presented paper, but also search for more information from the previously published literatures that report related research. The goal is to make the audience understand the research subject and the importance of the presented work and therefore, be interested in learning more about the discoveries on the topic.

PowerPoint slides should include references for any figures or tables that you use from a source other than your research article. A copy of the PowerPoint presentation should be emailed to the instructor the day before the presentation. There will be a reduction of 2 points (out of a total of 20 points) for not providing an advance copy of the presentation.

Presentation Scoring Rubric:

Points

Category	Scoring criteria
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Organization (20 points)	Background information is relevant and prepares audience well for understanding the rest of the presentation.	10
	Information is presented in a logical sequence.	10
Content (30 points)	Introduction is attention-getting, lays out the problem well, and establishes a framework for the rest of the presentation.	5
	Technical terms are well-defined in language appropriate for the targeted audience.	5
	Presentation contains accurate information.	10
	Appropriate amount of materials is prepared, and points made reflect well their relative importance.	10
	There is an obvious conclusion summarizing the presentation.	5
Presentation (35 points)	Speaker maintains good eye contact with the audience and is appropriately animated (e.g. gestures, moving around, etc.)	5
	Speaker uses a clear, audible voice.	5
	Delivery is poised, controlled, and smooth.	5
	Visual aids are well prepared, informative, effective, and attractive.	10
	Length of presentation is within the assigned time limits.	5
Answering questions (15 points)	Engage the audience.	5
	Show knowledge about the subject.	5
	Information is well communicated.	5
	Total	100

PRESENTATION TOPICS:

The students will select the articles to be presented. Be mindful that selection of a good article can make a huge difference in your presentation, *i.e.*, your grade. The articles should be genetics oriented (Many genetics articles may also include physiology, biochemistry, *etc.* It is acceptable to select an article that is a mixture of fields). It is highly recommended that the presenters email their selection to the instructor to ensure the article is appropriate for the class. Articles for partner presentations should be “current events,” describing a recent discovery, new technology, *etc.* Articles for individual presentations should relate in some way to your future path/goals (*e.g.*, from the laboratory you hope to join for graduate school, in the field of medicine that you plan to specialize in). Articles must be peer reviewed and may not be “review” articles (*i.e.*, must describe novel research). Students are required to select their articles at least one week before the presentation and email a copy to the instructor.

SUMMARY:

Each student will write two summaries, one for the solo presentation and another one for the partner presentation. The summary should be 3-4 pages (double spaced, 12 point font, 1" margins) for the article they present. An electronic copy in **Word** of each summary must be emailed to the instructor one week after the presentation. Figures and tables are not allowed, and the summaries should describe the experiments, the results, and the conclusions drawn without reference to specific figures and tables. Students are required to write the summary in their own words without copying or only slightly modifying sentences/paragraphs from the article they are writing about. A list of references used in preparing presentation should be included, which does not count towards the 3-4 pages of the summary. You will be graded on how well you summarize the article as well as the quality of your writing. **Be sure to proofread your summary since your grade will be reduced as a result of poor grammar, misspellings etc.**

Plagiarism will not be tolerated. **The instructor will use TurnItIn to check your written work.** You should not copy or only slightly modify sentences or paragraphs from the article you are writing about. The easiest way to prevent this is to read the article, then put your thoughts in your own words. Plagiarism will result in an F for the assignment. Plagiarism on more than one assignment will result in an F for the course, and an academic dishonesty charge will be filed to the Academic Services in the Division of Undergraduate Studies. Late assignments will be penalized one letter grade.

Summary Items	Points
Background and rationale for the research	10
Objectives	10
Rationale	10
Methods	10
Results	10
Conclusions	10
Discussion (incorporate classroom discussion): possible future avenues, weaknesses/disputes, alternate methodology/interpretation of data	25
Quality of writing (spelling, grammar)	10
Formatting (3-4 pages, double spaced, 12 point font, 1" margins)	5
Total	100

PARTICIPATION/QUESTIONS/EVALUATIONS:

Students are expected participate in the class discussion of the presented articles. You are required to read each assigned article prior to the presentation. To ensure participation occurs, the **instructor will keep track of the level of interaction each person has in the class.** (Note: you are not required to do this on days you are presenting, but you are encouraged to read the other papers presented that day). **One day (24-hours) prior to each class, each student must post one question each paper to the Discussion Boards on Canvas for the papers being presented the next day. There will be a reduction of 1 point (out of a total of 10 points) for each missing posting.** The best types of questions regard flaws in the logic, incomplete

experiments, missing controls, explanation of controls, or matters that require clarification. The questions should enhance the discussion of the article. The instructor may ask questions and call on students to "encourage" class discussion, if necessary. Please note that attendance is not the same as participation.

Each student will evaluate each presenter by providing positive feedback and constructive criticism regarding each presentation after the question and answer period. The goal is to help the presenter(s) realize ways to improve their presentation skills.

G&B DEPARTMENTAL SEMINAR ESSAY:

Attend one G&B seminar and write an essay which includes a summary of the research talk and critiques of the presentation. One single-spaced page, 12 size font.

GLOBAL ENGAGEMENT ESSAY:

Attend two virtual global engagement meetings and do one presentation about your college life or undergraduate research.

IMPORTANT DATES:

January

Jan 9, Mon - Jan 10, Tue: Late enrollment

Jan 9, Mon: Orientation

Jan 11, Wed: Classes begin

Jan 16, Mon: Martin Luther King Jr. holiday

Jan 18, Wed: Last day to register or add a class or declare Audit

Jan 25, Wed: Last day to drop a class or withdraw from the University without a W grade

February

Feb 1, Wed: Last day to apply for May commencement

March

Mar 3, Fri: Last day for instructors to issue midterm evaluations

Mar 17, Fri: Last day to drop a class or withdraw from the University without final grades

Mar 20, Mon - Mar 24, Fri: Spring break

April

Apr 8, Sat - Apr 15, Sat: Honors and Awards Week

Apr 27, Thu - Apr 28, Fri: Classes meet

May

May 1, Mon - May 5, Fri: Examinations

May 11, Thu - May 12, Fri: Commencement

TENTATIVE SCHEDULE:

Date	Topic
Jan. 16	Course overview, plagiarism, presentation skills
Jan. 23	Literature in Genetics (CU librarian), submit one page of reflection
Jan. 30	
Feb. 6	
Feb. 13	
Feb. 20	
Feb. 27	
Mar. 6	
Mar. 13	
Mar. 20	Spring Break
Mar. 27	
Apr. 3	
Apr. 10	
Apr. 17	
Apr. 24	
	<i>No final exam for this class. Good luck with your other exams</i>

ACADEMIC INTEGRITY:

Cheating and plagiarism will not be tolerated and will result in a grade of F for the course. As members of the Clemson University community, we have inherited Thomas Green Clemson's vision of this institution as a "high seminary of learning." Fundamental to this vision is a mutual commitment to truthfulness, honor, and responsibility, without which we cannot earn the trust and respect of others. Furthermore, we recognize that academic dishonesty detracts from the value of a Clemson degree. Therefore, we shall not tolerate lying, cheating, or stealing in any form. In instances where academic standards may have been compromised, Clemson University has a responsibility to respond appropriately to charges of violations of academic integrity.

ACCESSIBILITY STATEMENT:

Clemson University values the diversity of our student body as a strength and a critical component of our dynamic community. Students with disabilities or temporary injuries/conditions may require accommodations due to barriers in the structure of facilities, course design, technology used for curricular purposes, or other campus resources. Students who experience a barrier to full access to a class should let the professor know, and make an appointment to meet with a staff member in Student Accessibility Services as soon as possible. You can make an appointment by calling 864-656-6848 or by emailing studentaccess@lists.clemson.edu. Students who receive Academic Access Letters are strongly encouraged to request, obtain and present these to their professors as early in the semester as possible so that accommodations can be made in a timely manner. It is the student's responsibility to follow this process each semester. You can access further information here: <http://www.clemson.edu/campus-life/campus-services/sds/>.

CLEMSON UNIVERSITY TITLE IX:

Clemson University is committed to a policy of equal opportunity for all persons and does not discriminate on the basis of race, color, religion, sex, sexual orientation, gender, pregnancy, national origin, age, disability, veteran's status, genetic information or protected activity (e.g., opposition to prohibited discrimination or participation in any complaint process, etc.) in employment, educational programs and activities, admissions and financial aid. This includes a prohibition against sexual harassment and sexual violence as mandated by Title IX of the Education Amendments of 1972. The University is committed to combatting sexual harassment and sexual violence. As a result, you should know that University faculty and staff members who work directly with students are required to report any instances of sexual harassment and sexual violence, to the University's Title IX Coordinator. What this means is that as your professor, I am required to report any incidents of sexual harassment, sexual violence or misconduct, stalking, domestic and/or relationship violence that are directly reported to me, or of which I am somehow made aware. There are two important exceptions to this requirement about which you should be aware: Confidential Resources and facilitators of sexual awareness programs such as "Take Back the Night and Aspire to be Well" when acting in those capacities, are not required to report incidents of sexual discrimination. Another important exception to the reporting requirement exists for academic work. Disclosures about sexual harassment, sexual violence, stalking, domestic and/or relationship violence that are shared as part of an academic project, a research project, classroom discussion, or course assignment, are not required to be disclosed to the University's Title IX

Coordinator. This policy is located at <http://www.clemson.edu/campus-life/campus-services/access/title-ix/>. Ms. Alesia Smith is the Executive Director for Equity Compliance and the Title IX Coordinator. Her office is located at 223 Holtzendorff Hall, phone number is 864.656.3181, and email address is alesias@clemson.edu.

ABOUT COVID-19:

Your instructor is vaccinated against Covid-19 and does not expect to be debilitated if the instructor contracts the virus. However, it is still possible that the instructor will become Covid positive and thus be required to quarantine for a period of time. In the event of this necessity, classes will be temporarily held via Zoom. Upon the end of the quarantine period, normal class meetings will resume.