

Science and Decision-Making for a Complex World (sect 250)

SCIL 101 Fall 2019

Lectures: Tue/Thur 3:30 – 4:45 PM in 107 Hardin Hall

Recitation sections times and locations below

Aug 26 – Dec 20, 2019

Instructional Team

Instructors	
Contact info:	<p>Dr. Liz VanWormer 406 Hardin Hall liz.vanwormer@unl.edu 402-472-8483</p> <p>Question and Conversation Hours: Thursdays 1 pm to 3 pm in 406 Hardin Hall. Or <i>by appointment</i> -- please send me an email and I will be happy to find a time to meet.</p>

Graduate and Undergraduate Learning Assistants				
Contact info:	Nate Wehr nwehr2@unl.edu	Autumn Fluent autumn.fluent@huskers.unl.edu Lauren Patzel lauren.patzel@huskers.unl.edu	Jaspinder Singh jaspindersingh@huskers.unl.edu Kleidy Camela kcamela2@huskers.unl.edu	Matt Davidson mdavidson9991@gmail.com
Recitation time:	Section 451 F 10:00 – 10:50 am Hardin 107	Section 452 F 12:00 – 12:50 pm Hardin 107	Section 453 W 2:00 – 2:50 pm Hardin 163	Section 454 F 1:00 – 1:50 pm Hardin 162

Course Description and Objectives

About the Course: Introduction to the scientific, social, economic, political, cultural and ethical dimensions of current issues related to food, energy, water and landscape systems. In this course, students will work with their peers to access and evaluate popular and scientific media, and engage in science-informed decision-making.

Course Topics: Each semester, salient topics are chosen by the instructor team which illustrate challenges in the region related to different facets of agriculture and natural resources and provide an opportunity for students to problem solve in a domain that involves science of the environment and of agriculture, economics, politics/culture, and ethics. These topics may change in the future. This semester's topics include:

- We generate a lot of waste, in particular plastic. How do we best manage our waste to reduce harm to ecosystems and wildlife?
- How do we best address challenges of food insecurity?
- Water is a finite resource, should we limit certain uses of water in the state?

Course Learning Outcomes:

Upon successful completion of the course, student should have the ability to:

1. Distinguish between (a) scientific information and (b) values, ethics, culture, economics, or politics, and use both to support position about what should be done about complex socioscientific issues using proficient written and oral communication skills.

2. Explain and evaluate complex socioscientific issues in Nebraska using “systems-thinking” that includes an understanding of science, economics, politics/culture and ethics using proficient written and oral communication skills.
3. Access and identify scientific information in popular media and peer-reviewed science media that is relevant to a socioscientific issue, and use scientific information in decision-making. Including:
 - Making judgments on credibility based on professional reputation, publication venue, institutional affiliation, and potential conflicts of interest,
 - Understanding the creation of scientific information including the peer-review process, research funding and publication, and perspectives of research organizations,
 - Make sense of claims and evidence in scientific media sources, synthesize science information and apply it to decision-making.
4. Engage in teamwork and problem-solving with peers to use consensus prioritization of values and scientific information to make a case for the best solution to an important and complex socioscientific problem and defend the position during a final poster session.

The course will have three components:

1. Learning about a framework for evaluating socio-scientific issues (2 weeks)
2. Applying the framework to socioscientific issues important to agriculture and natural resources in Nebraska (8 weeks)
3. Asking a big question about a socioscientific issue and using a scientific argument to support a position (5 weeks)

ACE 8

This course meets the requirements for ACE 8: using knowledge, theories and analysis to explain ethical principles and their importance in society.

Class Periods and Learning Groups

The role of the instructor is to facilitate your learning. Real learning requires that you become an active participant in the process. To the greatest extent possible, our classroom activities will require participation in class through discussion, paper clicker questions and exploring a topic.

Learning groups that work together throughout the semester will be formed at the beginning of the course. In class you will regularly work with your classmates to discuss your ideas, practice your thinking, and complete in-class assignments throughout the course and a group project (poster) towards the end of the semester.

Why do we do so much group work for this class?

- Socioscientific issues influence society and decisions that are made about these issues will be made as collective citizens rather than as individuals. So, decision-making will always be a group project! Being in a group will allow you to practice taking a position on an issue, explain yourself and hear others’ perspectives.
- Science is a collaborative process; very little contemporary science is conducted by individuals working alone. Teaching of science should reflect how we practice science to the greatest extent possible - thus, collaboration prevails!
- You have a lot to do! You gain productivity by having a team to help you accomplish the tasks at hand.
- Very few jobs exist these days (especially in science, medicine, etc.) that you can perform solo - we **all** have to learn how to work effectively with diverse groups of people.
- The research shows that people learn more when working in groups compared to learning individually.
- Many pre-professional programs (medical schools, vet schools, graduate programs, etc.) are using "group skills" as a criterion for evaluating applicants prior to admission. Meaning, these items are showing up on the reference letters **and** in their evaluations of incoming applicants.

Each class period you should bring a notebook and pen/pencil to take class notes. Powerpoint notes for each class meeting will be posted in Canvas after each class. The class meeting notes may have additional information in them than what was shown in class. This information may be for reference or additional learning practice. **Often additional information is in the “notes” section of the Powerpoint below the slide.** Powerpoint notes are not posted before class so student have the opportunity to practice thinking about what information is important and what they should write down independent of the Powerpoint slides. The Powerpoint slides serve as a backup and review. Do not worry about writing down everything that is on the Powerpoint slide since they will be available to you afterwards. All Powerpoint slides are numbered, so you can number your notes to associate them with a particular slide later. A third reason is that we are continually developing and improving the course, and Powerpoint slides are often modified up until the night before lecture. This is to provide you with best possible learning experience during class time.

Syllabus and Class Schedule

The syllabus and class schedule will be available on Canvas (canvas.unl.edu). The class schedule will be updated as the semester progresses. The current copy will always be available on Canvas.

Recitation Section

Each student will be in a recitation section that has a designated meeting hour once per week. Your recitation leader is a Learning Assistant who will also attend lecture periods and will evaluate your work throughout the semester.

Evaluation

In-Class Activities

In-class activities consist of attendance, responding to paper clicker questions or turning in a sheet of paper with a written response to in-class discussion as an individual or as a group. In-class points may also be associated with assigned reading to prepare for that day's lecture and will be evaluated for completion. In-class work is turned in at the end of the class in on the stage at the front of the room (near a sign with your recitation section number). **In-class work should NOT be turned in via the folder-nametag system or it will not be noticed and will not be graded.**

Recitation Homework

Homework due in recitation will consist of reading and/or other exercises to prepare you for a richer discussion in your recitation group. You will need to turn in your homework at the beginning of class or directly when you walk in the classroom. **Otherwise, homework turned in after the start of class is considered late and will be counted for half-credit.**

Group Collaborative Research and Evaluation

During each of the Modules in the class, there will be group assignments that allow for community discussion about scientific evidence that supports different ideas. Groups will act as information gatherers that will be crucial for structured decision making exercises. The group will have an opportunity to get feedback and revise their arguments and research. The information groups find and their arguments about the performance of options will be posted on Canvas for everyone in the class to view. Groups will present the information they found to their recitation and get feedback from peers. Recitation sections will use all of the information gathered to come to consensus on how well different options solve a problem.

Module Assessments

During each of the Modules in the class, there will be a written assignment that is central to demonstrating your critical thinking about the issues in the class. You will be asked to find additional information about the issue and incorporate it into structured decision making. These assignments must be typed into a Word document provided by the instructor and turned in by midnight on the day that the assignment is due. *Important: please type your assignment responses and upload them in word document form (no pdfs) to Canvas.* Homework

should NOT be placed into folders (nametags) or it will not be graded.

Quizzes

Quizzes will be a mixture of multiple-choice and free response questions. They are test of comprehension of science content covered in the class. Quizzes will be short, approximately 15-20 minutes, open-note and taken on Canvas outside of class. Late quizzes will not be accepted without exception.

Final Exam

The final exam will be a mixture of multiple-choice and free response questions, similar to the quizzes. The Final exam will be comprehensive covering both the skills and science content knowledge gained in the course, but it is only a small percentage of your grade. ***The Final Exam will NOT be open-note.***

The final exam will take place on Monday, December 16th from 8:30 PM to 10:30 PM in 107 Hardin Hall.

The Final Exam will take place on the day scheduled without exception unless you have 3 finals scheduled for Monday, December 16th.

Assignment Values

There will be a **total of approximately 1000 points possible** in the class. Each category of assignments is valued differently in the course. Below is the approximate value of each assignment category.

Category	Points	Value (%)
Participation/In-Class Activities	150	15%
Individual Responses to the Reason & Reflect Toolkit	100	10%
Group Collaborative Research & Evaluation (2)	140	14%
Module Assessments (3)	160	16%
Quizzes (3)	100	10%
Final Project (group and individual assignments)	300	30%
Final Exam	50	5%

Grades

Your final grade for SCIL 101 will reflect the total number of points accumulated on all assignments during the course. Points for each assignment will be posted in Canvas. You are responsible for regularly checking your scores.

Final letter grades will be based on a percentage of the total points accumulated in the course. The following table indicates the minimum percentages required to achieve each letter grade at the end of the course.

Letter	F	D-	D	C-	C	C+	B-	B	B+	A-	A	A+
Min %	<63	63	67	70	73	77	80	83	87	90	93	98

Grade Discrepancies

If you think there was an error in the recording or scoring of an assessment item, **FIRST** check rubrics or other feedback that has been given to see how an item was graded, **THEN** if you still think there was an error in the recording or scoring of an item, you may submit a Grade Discrepancy Form (found on Canvas on the syllabus page) to the instructor or learning assistant within 2 weeks of your graded assessment item being returned. Discrepancies issued by e-mail and grades contested after 2 weeks will not be considered for re-grade. Please

note that a “re-grade” is exactly that, and could potentially result in a lower score. A clear and warranted argument that appropriately justifies the need for a re-grade is essential for a favorable outcome.

Please note that the instructors scan into pdf all homework, module final assignments, quizzes and exams before they are returned to you. Please consider the policy on academic dishonesty before altering your work and submitting a re-grade.

Missing Class

No Make-Up Work Policy

There is no make-up work allowed in the class. If you miss in-class points, recitation homework, module assessment assignments or quizzes there will **not** be a way to re-coup those points. However, see the clauses below (scores dropped and half credit) for a generous built-in cushion that will allow you to miss some class without affecting your grade. There are several reasons for this: 1) much of the in-class work is discussion with your peers which is impossible to make-up or recreate, and 2) there are many assignments/quizzes/homeworks in the class and many students with busy lives making it too difficult to keep track of missed classes. Therefore, no make-up work will occur for any reason* which includes:

- an illness
- an athletic event
- travel
- family emergencies
- a job interview
- oversleeping
- funerals
- a club or competitive event
- missing the bus

*If you anticipate missing more than a week of class for an extreme circumstance (major surgery, family crisis, etc), please do come and talk with me and we can consider a plan that will prevent major negative impact on your grade.

If I miss class, should I e-mail the instructor?

Instructors will always be interested in what’s going on in your life and welcome communication from you, but, because you have built in cushion for missed classes, assignments and quizzes (see below), it is NOT necessary for you to e-mail the instructors about this.

If I know in advance that I will miss class, can I turn in a homework or module assessments early that is due for that day?

Yes. Assignments will always be posted to the schedule at least 48 hours prior to the due date. Students are responsible for ensuring that homework is turned in **before class time** on the date due to receive full credit. If homework is turned in late (including at the end of class), students will receive half of the assigned points.

Built-in Cushion – dropped points and half credit

Missing class will mean forfeiting the points for in-class work for that day, possibly missing homework or a quiz. However, it is understandable that occasionally, things happen that are out of our control. To account for this, the course includes the following “cushions” for your grade:

- In-class points: the two lowest scores are dropped
- Quizzes: are on Canvas to be done at home, and are open for 2 days
- Recitation Homework: can be turned in up to 3 days late for half-credit
- Module Assessments: can be turned in up to 3 days late for half-credit

All students will receive these benefits regardless if class has been missed or not. Therefore, if you miss class for any reason, it is not necessary to inform your instructor.

Required Materials

None, except a gmail account is need for group collaboration.

Code of Conduct:

Adhere to social contract rules (created during first class period)

Be respectful of others opinions.

No screens or social media.

- no laptops.

- cell phones off or silenced.

No talking or loud distractions when others (including instructor) are talking.

Do not interrupt group-mates when they are talking. Be a good listener.

Contribute to classroom and small group discussion.

More about Laptop Code of Conduct:

Laptops are not permitted during lecture. There are several reasons for this including to minimize your distraction and the distraction of those around (especially behind) you, to aid in processing material by writing it down by hand, to foster a sense of communication in class and to be courteous to guest speakers. For more:

<http://chronicle.com/blogs/linguafranca/2014/08/25/why-im-asking-you-not-to-use-laptops/>

Safe and Civil Discourse

An inclusive learning environment is where diverse perspectives are recognized, and respected. Conversations in this course must be respectful and civil. According to our Student Code of Conduct, speech that is abusive, harassing, intimidating, or coercive is prohibited. Students who engage in such speech will be asked to leave the classroom and further disciplinary actions may be taken.

Contact:

1. Always daily check your email that you use to sign into Canvas/Blackboard.

The instructor and LA's will frequently post class updates, instructions or other important information to the class email list via Canvas. Please be aware of which email account receives these emails and check it at least once a day. You are responsible for receiving these communications in a timely manner.

2. How should I contact the instructors and/or LAs?

E-mail is the preferred method of communication for everyone working in this course (instructor and LAs). Here are a few suggestions to ensure successful communication:

Only e-mail from your UNL e-mail. If you e-mail from gmail, hotmail, yahoo, etc., there is a chance your mail will be detected as spam and not appear in our inbox.

Use an informative description in the Subject line of your e-mail. Subject lines help us to organize and coordinate large numbers of e-mails from students. It's hard to know what the e-mail will be about if "hello" is the only item in the Subject line - unless you really are e-mailing to say, "Hello!"

Sign your email with your name and be sure your name is associated with your account. I will not reply to emails that I cannot identify by name.

Include previous messages in your "replies." If you are replying to e-mail from instructor/LAs, include the original message in your reply. This provides a reminder of what our conversation was about and to what your reply is regarding.

Emails are not regularly checked in the evening. If you send an email in the evening, you may not get a response until the next day or later.

2. Who should I contact? Please know that you may contact us for any issue arising from any aspect of the course, however consider contacting your LAs before your instructor as often LAs are more available especially right before or after class. Please consider copying (in the CC line of your email) both your LA and your instructor about course issues so we are all notified and can communicate more clearly.

Disability Assistance

Students with disabilities are encouraged to contact the instructor for a confidential discussion of their individual needs for academic accommodation. It is the policy of the University of Nebraska-Lincoln to provide

flexible and individualized accommodation to students with documented disabilities that may affect their ability to fully participate in course activities or to meet course requirements. To receive accommodation services, students must be registered with the Services for Students with Disabilities (SSD) office, 132 Canfield Administration, 472-3787 voice or TTY.

Academic Integrity Reporting

Students are expected to adhere to guidelines concerning academic dishonesty outlined in University's Student Code of Conduct

(<http://stuafs.unl.edu/DeanofStudents/Student%20Code%20of%20Conduct%20May%20Rev%202014%20a.pdf>). Academic dishonesty can involve, but is not limited to, cheating; fabrication or falsification of information; plagiarism; destroying, defacing, stealing, or making inaccessible library or other academic resource material; complicity in the academic dishonesty of others; falsifying grade reports; or misrepresenting illness, injury, accident, etc., to avoid or delay an examination, or the timely submission of academic work. Students are encouraged to contact the instructor for clarification of these guidelines if they have questions or concerns.

Consequences of academic dishonesty may range from a warning to assigning an F for the course. The instructor might also choose to assign a zero or partial credit for a specific assignment, quiz, examination or laboratory report in which dishonesty was involved. Your case may be forwarded to the University Judicial Board at the discretion of the Instructor.

Students are encouraged to contact the instructor for clarification of these guidelines if they have questions or concerns. The School of Natural Resource policy on Academic Dishonesty is available at <http://snr.unl.edu/employeeinfo/information/employeehandbook-single.asp?infocode=S162>

DON'T RISK YOUR ACADEMIC FUTURE - IT IS SIMPLY NOT WORTH IT!

Recourses for Stress

UNL offers a variety of options to students to aid them in dealing with stress and adversity. Counseling and Psychological & Services (CAPS) is a multidisciplinary team of psychologists and counselors that works collaboratively with Nebraska students to help them explore their feelings and thoughts and learn helpful ways to improve their mental, psychological and emotional well-being when issues arise. CAPS can be reached by calling 402-472-7450. Big Red Resilience & Well-Being provides one-on-one well-being coaching to any student who wants to enhance their well-being. Trained well-being coaches help students create and be grateful for positive experiences, practice resilience and self-compassion, and find support as they need it. BRRWB can be reached by calling 402-472-8770.

Emergency Procedures:

- **Fire Alarm (or other evacuation):** In the event of a fire alarm: Gather belongings (Purse, keys, cellphone, N-Card, etc.) and use the nearest exit to leave the building. Do not use the elevators. After exiting notify emergency personnel of the location of persons unable to exit the building. Do not return to building unless told to do so by emergency personnel.
- **Tornado Warning:** When sirens sound, move to the lowest interior area of building or designated shelter. Stay away from windows and stay near an inside wall when possible.
- **Active Shooter**
 - o **Evacuate:** if there is a safe escape path, leave belongings behind, keep hands visible and follow police officer instructions.
 - o **Hide out:** If evacuation is impossible secure yourself in your space by turning out lights, closing blinds and barricading doors if possible.
 - o **Take action:** As a last resort, and only when your life is in imminent danger, attempt to disrupt and/or incapacitate the active shooter.
- **UNL Alert:** Notifications about serious incidents on campus are sent via text message, email, unl.edu

website, and social media. For more information go to: <http://unlalert.unl.edu>.

- Additional Emergency Procedures can be found here:
http://emergency.unl.edu/doc/Emergency_Procedures_Quicklist.pdf