

UNIVERSITY OF NEBRASKA-LINCOLN
University Curriculum Approval

Viewing: SCIL 101 (New Course)

SCIL 101. Science and Decision-Making for a Complex World (3 cr I, II) Lec 3, rct 1.

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

Additional Information

Grading Type unrestricted

Effective Term Fall 2016 (1168)

Most Recent Action Jan 7, 2016 10:05:35 AM

Submitter Jenny Dauer

Course Groups None

Justification:

This introductory undergraduate course will provide students with an opportunity to engage in science-informed decision-making about real-world challenges related to food, energy, water and landscape systems. It provides a multidisciplinary experience related to complex issues that contribute broadly to society's scientific literacy. This course is required course for all majors in CASNR.

A. Course Level and Rationale: This 100-level course is designed for all undergraduate students with degrees in the College of Agricultural Sciences and Natural Resources. Its emphasis is science literacy, or science informed decision-making about socioscientific issues, that is relevant to all students.

B. Expected Enrollment: The expected enrollment is 450-500 in the Fall and 100 in the Spring.

C. Relationship to other Courses: This course is required for all students pursuing degrees in CASNR, and for the Food, Energy and Water in Society minor.

Syllabus:

[SCIL 101 Syllabus.docx](#)

Additional Documentation

[SCIL 101 12.21.15.docx](#)

[AGRINRES 103 Student Schedule Fall 2015.pdf](#)

[Cover Sheet CASNR Curriculum Committee SCIL 101.pdf](#)

[Comments](#)

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Who	When	What	Ed.
Jenny Dauer	Dec 22, 2015 2:03:25 PM	I have uploaded the syllabus file "SCIL 101 Syllabus.docx"	
Jenny Dauer	Dec 22, 2015 2:03:25 PM	I have uploaded the other file "SCIL 101_12.21.15.docx"	
Jenny Dauer	Dec 22, 2015 2:03:25 PM	I have uploaded the other file "AGRINRES 103 Student Schedule Fall 2015.pdf"	
Jenny Dauer	Dec 22, 2015 2:03:25 PM	I have uploaded the other file "Cover Sheet_CASNR Curriculum Committee SCIL 101.pdf"	

Approved via e-mail 1-29-16

Editorial

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Science and Decision-making for a Complex World (SCIL 101) Syllabus

Lead Instructor: Jenny Dauer

Instructors: Dennis Ferraro, Cory Forbes, Thomas Powers, Elizabeth VanWormer, Brandi Sigmon

*Office location, contact information and office hours will be included in the syllabus, but vary by instructor and semester

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

Course Objectives:

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 in support of a position about what should be done about complex socioscientific issues.
2. Explain the science and arguments derived from scientific evidence about complex socioscientific issues.
3. Access and identify scientific information in popular media and peer-reviewed science media that is relevant to a socioscientific issue, and understand the implications of the scientific information for decision-making.
4. Work with peers to use consensus values and scientific information to make a case for the best solution to an important and complex socioscientific problem.

Course Activities:

The course will involve a variety of methods and activities including, group discussions, clicker questions, reading, lecture, guest speakers and individual and team research. Students will be organized into small groups at the beginning of the semester to build community and stimulate peer-to-peer learning. The same student groups will work together on a final project. Each lecture will have associated recitation sections that are lead by a Learning Assistant. The recitation will include smaller group discussions, learning activities, critical feedback on assignments and development of the final project.

Assessment Plan:

Students will be evaluated on the basis of the quality of their:

In-class activities and homework	20%
Unit Assessments	30%
Quizzes	10%
Final project	30%
Final exam	10%

In-Class Activities and Homework

In-class activities consist of responding to clicker questions or turning in a sheet of paper with a written response to in-class discussion. In-class points may also be associated with assigned reading for homework and comprehension questions to prepare for that day's lecture.

Unit Assessments

During each of the Units in the class there will be a written assignment asking you to evaluate media and scientific journal articles as well as work through a decision-making model for problem-solving about an issue. These assignments are central to demonstrating your critical thinking about the issues in the class.

Quizzes and Final Exam

Quizzes and the Final Exam will likely 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 approximately 15-20 minutes. The Final exam will be comprehensive covering both the skills and science content knowledge gained in the course. Quizzes and the Final Exam will take place on the day scheduled without exception. The final exam will take place on ___ at ___ in 107 Hardin Hall and there will be no option for taking the final earlier unless you have 3 finals scheduled for the day of the exam.

Final Project

You will work with your assigned group for the final project. Your group will pick a big question related to a problem about food, energy, water and landscape systems, gather scientific information about the issue, work through a decision-making process to determine possible solutions to the problem, and create a poster that demonstrates your research and thinking. You will display your poster during a public poster session the last week of class. The points for the project include 30 individual points and 60 group points.

Letter grades will be assigned based on straight percentages of 100 - 90% A range, 89 - 80% B ranges, etc.

SCALE

100 – 98 A+	89 - 87 B+	79 - 77 C+	69 – 67 D+	Below 59 F
97 – 94 A	86 - 83 B	76 - 73 C	66 – 63 D	
93 – 90 A-	82 - 80 B-	70 - 72 C-	62 – 60 D-	

Required Material/Textbooks: None

Prerequisites: None

Students with Disabilities:

Students with disabilities are encouraged to contact me 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.

CASNR Policy on Academic Dishonesty

All students and faculty should be familiar with the UNL Policy regarding Academic Dishonesty that may be found in the Student Code of Conduct (<http://stuafs.unl.edu/ja/code/three.shtml>).

When a student is notified by an instructor of an alleged act of Academic Dishonesty, they should discuss the matter with the instructor to determine if redress is possible. If the instructor decides to move forward with the allegation of Academic Dishonesty and the result is a lower grade, the instructor shall make a report in writing of the facts of the case and the academic sanction imposed against the student to the instructor's Academic Unit Chair, Head or Director and to the UNL Judicial Officer. Both the instructor and academic unit should maintain copies of the relevant documents on file for at least two years.

If the student feels that the allegations of the instructor regarding Academic Dishonesty, or the proposed penalty to be imposed, are unjust or not warranted, the student should contact their academic advisor and the Unit/Program Chair/Head/Director to discuss the matter. This process must be initiated within one month of the class grade assignment. The Unit/Program should then initiate a review of the matter consistent with its written policy. If the Unit/Program agrees with the Instructor that the evidence indicates that the student has violated the Academic Dishonesty policy, they should forward the documentation and paperwork to the CASNR Associate Dean for Student Affairs for review by the College. If the Unit/Program determines that there is not sufficient evidence of Academic Dishonesty to warrant action against the student, the paperwork should be forwarded to the CASNR Dean with the student's name deleted so that there is a record of the incident, but no potential future bias toward the student.

Once received by the CASNR Associate Dean for Student Affairs, the file alleging student Academic Dishonesty should be considered by a Panel consisting of the CASNR Associate Deans. If the Panel decides that there is sufficient evidence to support the allegation of Academic Dishonesty made by the instructor, the student will be notified. If the student desires to appeal this decision, the file will be forwarded to the CASNR Dean for transfer to the UNL Judicial Officer.

Emergency Response

- **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:**

Evacuate: if there is a safe escape path, leave belongings behind, keep hands visible and follow police officer instructions.

Hide out: If evacuation is impossible secure yourself in your space by turning out lights, closing blinds and barricading doors if possible.

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

New Course Proposal
SCIL 101

Title: Science and Decision-Making for a Complex World

Lead Instructor: Jenny Dauer

Instructors: Dennis Ferraro, Cory Forbes, Thomas Powers, Elizabeth VanWormer, Brandi Sigmon

Justification:

This introductory undergraduate course will provide students with an opportunity to engage in science-informed decision-making about real-world challenges related to food, energy, water and landscape systems. It provides a multidisciplinary experience related to complex issues that contribute broadly to society's scientific literacy. This course is required course for all majors in CASNR.

- A. **Course Level and Rationale:** This 100-level course is designed for all undergraduate students with degrees in the College of Agricultural Sciences and Natural Resources. Its emphasis is science literacy, or science informed decision-making about socioscientific issues, that is relevant to all students.
- B. **Expected Enrollment:** The expected enrollment is 450-500 in the Fall and 100 in the Spring.
- C. **Relationship to other Courses:** This course is required for all students pursuing degrees in CASNR, and for the Food, Energy and Water in Society minor.

Proposed Bulletin Listing:

- A. **Course number:** SCIL 101
- B. **Course title:** Science and Decision-Making for a Complex World
- C. **Crosslistings:** none
- D. **Credit hours:** 3 hours
- E. **Term offered:** Fall and Spring semesters
- F. **Course Prerequisites:** None
- G. **Notes:** None
- H. **Course Description:** In this course students evaluate the scientific, social, economic, political and cultural dimensions of current issues related to food, energy, water and landscape systems. Students will work with their peers to access and evaluate popular and scientific media, and engage in science-informed decision-making.

Class Period	Date	Topics	Assignments (Changes may occur, so please pay attention to class instructions and emails)
<i>Gray boxes indicate recitation topics</i>			
Week 1 Day 1	1/12	Introduction- Socio-scientific issues	Syllabus Scavenger Hunt online survey and Pre-assessment online survey due Tuesday 1-12 at midnight.
Week 1 Day 2	1/14	Fast and Slow Thinking	
Week 1 recitatin	1/11-1/15	Recitation Meeting: Introduction	Group Contracts and Photos due in class (please email a photo to your LA or instructor)
Week 2 Day 3	1/19	Slow Thinking Decision-making Framework	
Week 2 Day 4	1/21	Evaluating information in the media Quiz on first two weeks material	
Week 2 recitatin	1/18-1/22	Recitation Meeting: tools for searching for information	HW due at the beginning of recitation
Week 3 Day 5	1/26	Topic 1: Should we further restrict the amount of water used for agriculture in Nebraska?	
Week 3 Day 6	1/28	Hydrology and the water cycle	Water Unit Assessment Part I due Friday 10 p.m. uploaded to Blackboard
Week 3 recitatin	1/25-1/29	Recitation meeting: discussion about water issues	Republican River water homework due at the beginning of recitation
Week 4 Day 7	2/2	Guest speaker: Nicholas Brozovic Water policy in Nebraska	
Week 4 Day 8	2/4	Water footprints Quiz open notes on water	Water Unit Assessment Part II due Friday 10 p.m. uploaded to Blackboard
Week 4 recitatin	2/1 - 2/5	LA office hours: feedback on intro quiz and help with water unit assessment	
Week 5 Day 9	2/9	Topic 2: Should you use biofuels in your car?	
Week 5 Day 10	2/11	Do biofuels reduce greenhouse gas emissions? How do biofuels impact the environment?	Biofuels Unit Assessment Part I due Friday 10 p.m. uploaded to Blackboard
Week 5 recitatin	2/8-2/12	Recitation meeting: discussion about biofuels	Life Cycle Analysis HW due at the beginning of recitation
Week 6	2/16	Guest speaker John Hay	

Day 11		Biofuel production and use in engines		
Week 6 Day 12	2/18	Do biofuels reduce greenhouse gas emissions? How do biofuels impact the environment? (cont'd) Quiz open notes on biofuels		Biofuels Unit Assessment Part II due Friday 10 p.m. uploaded to Blackboard
Week 6 recitatin	2/15- 2/19	LA office hours: feedback on water quiz and unit assessment, help with biofuels unit assessment		
Week 7 Day 13	2/23	Topic 3: Hunger Issues		
Week 7 Day 14	2/25			Hunger Unit Assessment Part I due Friday 10 p.m. uploaded to Blackboard
Week 7 recitatin	2/22- 2/26	Recitation meeting: discussion about ____		Recitation Homework due at the start of class
Week 8 Day 15	3/1	Guest speaker		
Week 8 Day 16	3/3	Quiz open notes on hunger issues		Hunger Unit Assessment Part II due Friday 10 p.m. uploaded to Blackboard
Week 8 recitatin	2/29 - 3/4	LA office hours: feedback on biofuels quiz and unit assessment, help with hunger issues unit assessment		
Week 9	3/8	Topic 4: Prairie Dogs		
Week 9 Day 17	3/10			Prairie Dog Unit Assessment Part I due Friday 10 p.m. uploaded to Blackboard
Week 9 recitatin	3/7- 3/11	Recitation meeting: discussion about ____		Recitation Homework due at the start of class
Week 10 Day 18	3/15	Guest speaker – Dennis Ferraro		
Week 10 Day 19	3/17	Quiz open notes on prairie dog issues		Prairie Dog Assessment Part II due Friday 10 p.m. uploaded to Blackboard
Week 10 recitatin	3/14- 3/18	LA office hours: feedback on hunger issues quiz and unit assessment, help with prairie dog issues unit assessment		
Week 11 Day 20	3/22	SPRING BREAK- no class		
Week 11 21	3/24	SPRING BREAK- no class		
Week 11 recitatin	3/21- 3/25	SPRING BREAK – no recitation		
Week 12	3/29	Lecture meets—instructions for final project		

Day 22				
Week 12 Day 23	3/31	Lecture meets—discussing poster format, searching for articles, how to avoid plagiarism		
Week 12 recitatn	3/28- 4/1	Recitation Meeting: Focusing on Student Projects - Begin work on student projects.		Student Project topic, options and criteria are due in recitation
Week 13 Day 24	4/5	No lecture		
Week 13 Day 25	4/7	No lecture		
Week 13 recitatn	4/4- 4/8	Recitation Meeting: Working on student projects, how to critique a poster		Individual literature review due in recitation
Week 14 Day 26	4/12	No lecture		
Week 14	4/14	No lecture		
Week 14 recitatn	4/11- 4/15	Recitation Meeting: Work on student projects		Group rough draft of poster (8.5" x 11") due in recitation, Group research
Week 15 Day 27	4/19	No lecture		
Week 15 Day 28	4/21	No lecture		
Week 15 recitatn	4/18- 4/22	Recitation Meeting: Working on student projects		Peer feedback- draft of poster 8.5" x 11" due in recitation. Two days after your recitation your final poster must be emailed to your LA.
Week 16 Day 29	4/26	No lecture		
Week 16 Day 30	4/28	Poster Session 2 nd floor of Hardin Hall		Poster critique is due to your LA at the poster session.
Week 16 recitatn	4/25- 4/28	Recitation Meeting: Final exam review		
Week 17	5/2	FINAL EXAM Monday May 2, 7:30 am in 107 Hardin		