
Term Information

Effective Term Autumn 2022

General Information

Course Bulletin Listing/Subject Area Anthropology
Fiscal Unit/Academic Org Anthropology - D0711
College/Academic Group Arts and Sciences
Level/Career Undergraduate
Course Number/Catalog 3051
Course Title Sustainable and Resilient Social and Ecological Systems Capstone Portfolio
Transcript Abbreviation soc/ecol portfolio
Course Description Students will create the capstone portfolio required for completion of the Sustainable and Resilient Social and Ecological Systems (SARSES) certificate. Aided by group discussions and peer feedback, students will reflect on what they have learned through participation in the certificate program, including both coursework and related learning undertaken outside of the certificate program proper.
Semester Credit Hours/Units Fixed: 1

Offering Information

Length Of Course 7 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Lecture
Grade Roster Component Lecture
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites 3050
Exclusions
Electronically Enforced Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 45.0201
Subsidy Level Baccalaureate Course
Intended Rank Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

Course Details

Course goals or learning objectives/outcomes

- Students will confirm and communicate their understanding of the dynamic interconnections between physical earth systems, ecosystems, and human systems and consider how they plan to apply this understanding in future studies, work, and personal lives

Content Topic List

- Capston
- Portfolio
- Social Systems
- Ecological Systems

Sought Concurrence

Yes

Attachments

- SARGES Complied Concurrence Data.docx: Concurrence
(Concurrence. Owner: Healy, Elizabeth Ann)
- Capstone PortfolioCourse_Revised.docx: Syllabus
(Syllabus. Owner: Healy, Elizabeth Ann)

Comments

- Please see Panel feedback e-mail sent 03/30/22. *(by Cody, Emily Kathryn on 03/30/2022 09:35 AM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Healy, Elizabeth Ann	10/13/2021 09:07 AM	Submitted for Approval
Approved	Guatelli-Steinberg, Debra	10/13/2021 09:09 AM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	03/13/2022 09:38 PM	College Approval
Revision Requested	Cody, Emily Kathryn	03/30/2022 09:35 AM	ASCCAO Approval
Submitted	Healy, Elizabeth Ann	04/04/2022 01:32 PM	Submitted for Approval
Approved	Guatelli-Steinberg, Debra	04/04/2022 02:17 PM	Unit Approval
Approved	Vankeerbergen, Bernadette Chantal	04/05/2022 04:32 PM	College Approval
Pending Approval	Cody, Emily Kathryn Jenkins, Mary Ellen Bigler Hanlin, Deborah Kay Hilty, Michael Vankeerbergen, Bernadette Chantal Steele, Rachel Lea	04/05/2022 04:32 PM	ASCCAO Approval

Anthropology 3051

Sustainable and Resilient Social and Ecological Systems Capstone Portfolio

Spring 202X ~ 1st 7-week session ~ The Ohio State University ~ 1 Credit

Time and Place:

One 110-minute meeting per week (e.g., Wednesdays 12:30-2:20)
Location TBD

Instructor: Dr. Anna Willow

Email: willow.1@osu.edu

Phone: (740)725-6259

Office: 350B Morrill Hall

Office Hours: TBD

Learning Goals and Outcomes

This course constitutes the capstone portfolio required for completion of the Sustainable and Resilient Social and Ecological Systems (SARSES) certificate. Students will reflect on what they have learned through participation in the certificate program, including both coursework and related learning (e.g., internships, undergraduate research, volunteer service, and other opportunities) undertaken outside of the certificate program proper. They will confirm and communicate their understanding of the dynamic interconnections between physical earth systems, ecosystems, and human systems and consider how they plan to apply this understanding in their future studies, work, and personal lives.

Course Overview

In the early weeks of the course, meetings will involve discussions sessions in which students summarize and reflect on the information and connections gained through participation in the SARSES certificate. In the sessions that follow, students will present their portfolios to the class. Open-format sharing of portfolios will encourage discussion and continued learning.

Course Requirements and Grading

Assignment	Due Date	Percentage of Final Grade
Engagement/Participation	Ongoing	30%
SARSES Portfolio Presentation	Students will sign up to present in Week 6 or 7 of the Course	20%
SARSES Portfolio	Due in Final Exam Period	50%

Course Engagement/Participation: Students are expected to demonstrate their ongoing engagement in the course by participating in class meetings and offering feedback on other students' work. 30% of final grade. Ongoing.

SARSES Portfolio Presentation: Students will informally present a draft of their SARSES portfolio to the class in order to obtain constructive feedback and stimulate class discussion. 20% of final grade. Presentation date in Week 6 or 7 of the course (determined at first class meeting).

Expectations and connections: Students will make a semi-formal presentation to the class during Week 6 or 7 of the course (dates will be determined during the first class meeting). This presentation will display and explain the contents of the student's SARSES portfolio, which will include relevant papers and materials that have been intentionally collected and curated throughout the duration of participation in the certificate program. While most of the included items will originate from assignments completed for SARSES program courses, students are also encouraged to include work from other courses, internships, extracurricular activities, and relevant life experiences. Students will present their portfolios, answer questions, and participate in a discussion inspired by their work. Students in the SARSES certificate program are expected to demonstrate a comprehensive and cross-disciplinary understanding of the systemic interconnections between physical earth systems, ecosystems, and human systems and be able to apply this understanding to the development of sustainable systems in their future work, studies, and personal lives. This presentation is an opportunity to share the knowledge and understanding they have gained. By presenting a preliminary version of their portfolio to the class, students will gain valuable peer and instructor feedback that they will incorporate into their final portfolio, reinforcing the iterative and processual nature of academic work. Feedback can be expected to include a variety of disciplinary perspectives, thus furthering the SARSES Certificate's goal of understanding and integrating diverse perspectives. Grading will be based on students' demonstration of understanding of socio-ecological systems, their comprehensive integration of multiple disciplinary perspectives and courses, and their response to feedback.

SARSES Portfolio: To meet the requirements of the SARSES certificate program, students will submit a portfolio that identifies connections among the courses taken for the certificate and explains how the student will apply their knowledge and engage constructively with sustainability in their post-graduation lives and careers. 50% of final grade. Due in final exam period.

Expectations and connections: Students will submit an online portfolio that includes work from each SARSES course taken during their participation in the program in order to clearly display their socio-ecological systemic perspective and its development over time. The portfolio will be clearly organized and curated in a way that allows the instructor to trace the students' intellectual growth and will include representative material from each SARSES course taken. While most of the included items will originate from assignments completed for courses in the SARSES program, students are also encouraged to include work from other courses, internships, extracurricular activities, and relevant life experiences. In their portfolio, students are expected to clearly demonstrate the following SARSES objectives: (1) show a cross-disciplinary ecological literacy, (2) show that they are able to draw on diverse perspectives to aid the analysis and resolution of complex environmental problems, (3) show that they can describe dynamic couplings between social systems, earth systems, and ecosystems, (4) explain why a systemic understanding is important to solving sustainability problems, (5) think systemically about local, regional, national, and global problems and possible solutions, and (6) display an ability to make choices that promote sustainability and resilience. This portfolio represents the capstone project for the SARSES Certificate and is expected to clearly demonstrate a robust comprehension of a socio-ecological perspective, an integration of multiple pertinent fields of study, and an ability to apply this perspective to decision making in an anticipated career and/or program of study. Grading will be based on students' demonstration of understanding of socio-ecological systems (as articulated in the SARSES Certificate Program objectives), a comprehensive integration of multiple disciplinary perspectives and courses, and a thoughtful and professional presentation of information.

******Additional details on all assignments and expectations will be discussed in class******

Course Policies and Other Important Information

Carmen: Please check Carmen regularly. Links to online material, lecture outlines, important announcements, and all major grades for the course will be posted in Carmen. Set your notification settings so that you get an email (or alert) when there is a new announcement.

Readings: Readings for this course are available online through Carmen or the OSU Library. Please read the selections listed in the Course Outline in advance of that day's class meeting.

Student Well-Being Statement: The well-being of students is of primary importance. If you are facing any challenges related to your physical or mental health, or obstacles like food or housing insecurity, please do not hesitate to get in touch to discuss ways we can put you in the best possible position to succeed.

Students with Disabilities: The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Academic Integrity: All students should become familiar with the rules governing academic misconduct, especially as they pertain to plagiarism and cheating. Ignorance of the rules is not an excuse and all alleged cases of academic misconduct will be reported to the Committee on Academic Misconduct (COAM). It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct.

Statement on Title IX: Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu>, emailing the Ohio State Title IX Coordinator at titleix@osu.edu. Please note that Ohio State University faculty and other personnel are required to report to the University's Title IX Office any instances of sexual violence or harassment that students disclose.

Diversity: The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from themselves. We are committed to maintaining a community that recognizes and values the

inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Grading Policy: The following cutoffs will be used to determine final grades. A = 93%, A- = 90%, B+ = 87%, B = 83%, B- = 80%, C+ = 77%, C = 73%, C- = 70%, D+ = 67%, D = 60%, E = below 60%

Attendance and Exam Policy: Students are expected to attend every course meeting. Late assignments will be accepted but will gradually lose points.

Technology Policy: Phones and internet use are permitted in class if (and only if) they enhance course participation. Unless you have an ongoing emergency, please silence your cellphone.

Course Outline

Week 1

Introductions and Expectations

Week 2

Reflections I: The State of the World/ Reflections II: How Did We Get Here?

→ *Group Discussion*

Week 3

Reflections III: A World of Problems/Reflections IV: A World of Prospects

→ *Group Discussion*

Week 4

Portfolio Workshop

→ *Please bring draft/preliminary portfolio materials to class. Feedback and assistance will be provided to aid portfolio development.*

Week 6

Student Presentations and Discussion

→ ***SARSES Portfolio Presentations Due (for Week 6 Students)***

Week 7

Student Presentations and Discussion

→ ***SARSES Portfolio Presentations Due (for Week 7 Students)***

Final Exam

→ ***Final SARSES Portfolio Due (for all students)***

Complied Concurrence Data for SARSES Certificate Program and Related Courses

Note: The numbers of the relevant courses have now changed. Anthropology 2350 is now Anthropology 3050. Anthropology 2351 is now Anthropology 3051.

College of Public Health

On behalf of the College of Public Health, we support your proposed interdisciplinary undergraduate certificate in *Stable and Resilient Social and Ecological Systems* (SARSES) plus the proposed capstone course. (4/27/2021)

Earth Sciences

Earth Sciences concurs on your course and certificate “Stable and Resilient Social and Ecological Systems” and associated capstone course.

We also concur on your course Anthropology 2350: “Social and Ecological Systems: From Problems to Prospects.”

These look like great opportunities for our students, and wish you success with them. (4/28/2021)

Fisher College of Business

This looks fine to me. (4/27/2021)

Engineering

I've had positive feedback on the proposal from our faculty, so I'm inclined to grant concurrence as well. FYI, FABE received a request for concurrence through CFAES as well...and the same answer has been provided through that channel. (5/11/2021)

Do we know how much overlap of courses can occur between a certificate program like this and another degree program? I think this is a nice program and it will likely attract students from arts and science, but I don't see it being particularly attractive for engineering students unless they can double count. I do not see any concurrence issues. (5/11/2021)

EEOB

EEOB concurs with the offering of the undergraduate certificate, “Stable and Resilient Social and Ecological Systems” and the capstone course, ANTH 2351: Sustainable and resilient social and ecological systems capstone portfolio. Please let me know if you have any questions. (5/11/2021)

Law

Kris, thanks for your email. The College of Law has no objections to this concurrence request. Please let me know if I can help in any other way. (4/28/2021)

Communication

Interesting effort, good luck. We concur. (4/28/2021)

School of Environment and Natural Resources

Note: Some of the departments within SENR initial has concerns about the certificate program. Their original communications are provided in Appendix A. After working with the Sustainability Institute and several individuals within SENR, we were able to resolve these concerns and obtain concurrence. The following email confirming concurrence was sent by Jeremy Brooks on 9/13/2021:

I provided an overview and summary of the discussions around SARSES with our Academic Affairs Committee this past Friday. I relayed to the committee that you had modified the set of course options and were pursuing staffing options to improve the mentoring and guidance of students as they develop their portfolios throughout the program and enter into the capstone course.

With these changes in mind, SENR can provide concurrence for the program. I was unable to find the concurrence form for the program as a whole (I have it for the intro and capstone course) – but hopefully this email will suffice. If not, can you please re-send the concurrence form and I'll be happy to fill it out. Please let me know if you have any questions or concerns.

Compiled Concurrence Data for Anthropology 2350

Fisher College of Business

This looks fine to me – we don't really have anything like this in FCOB. (4/15/2021)

College of Engineering

Both Department of Civil Engineering and Department of Food, Agricultural and Ecological Engineering have reviewed the syllabus for ANTHROP 2350 *Social and Ecological Systems: From Problems to Prospects* and are supportive of and concur with the Department of Anthropology's proposed offering. (4/19/2021)

Department of Psychology

Kris: This email is to confirm that we support your department's new course in social and ecological systems (Anthro 2350). (4/19/2021)

EEOB

The Department of Evolution, Ecology and Organismal Biology supports this offering. (4/27/2021)

Center for Life Science Education

I concur with this course offering. (4/29/2021)

Chemistry and Biochemistry

There is no overlap with any courses taught in Chemistry and Biochemistry. (4/17/2021)

SENR

This is interesting course that will serve the new certificate program well. There is some overlap with ENR/AEDE 2500 - Introduction to Sustainability. That class touches on topics like resilience, social-ecological systems (and systems thinking in general), climate change, ecosystem dynamics, planetary boundaries in the Anthropocene, ecosystem services, consumption (overconsumption and sustainable consumption), biodiversity loss, and social/political/technological innovations that are intended to address pressing problems. I think the distinguishing components are that 2500 brings in business and economics more explicitly and has slightly less of an emphasis on physical and natural systems. The proposed course also has much more emphasis on student research. I have included additional thoughts in the email accompanying this form. (4/29/2021)

Communication

The School of Communication grants concurrence.(4/15/2021)

Law

The College of Law supports this proposal. (4/17/2021)

Earth Sciences

Earth Sciences concurs on your course and certificate “Stable and Resilient Social and Ecological Systems” and associated capstone course.

We also concur on your course Anthropology 2350: “Social and Ecological Systems: From Problems to Prospects.”

These look like great opportunities for our students, and wish you success with them. (4/28/2021)

Appendix A: Initial Concerns Expressed by SENR, which have now been resolved

CFAES

The College of Food, Agricultural, and Environmental Sciences sought feedback from academic units within the college that have discipline overlap with the proposed interdisciplinary undergraduate certificate, ‘Stable and Resilient Social and Ecological Systems [SARSES]’ regarding the requested concurrence for this proposal. The following is a summary of the feedback obtained from those units. I will be sending separately feedback from the Department of Agricultural, Environmental and Development Economics, which is consistent with the following feedback, but also includes specific suggestions that the Department of Anthropology may want to follow-up with the department to consider.

Overall, CFAES appreciates the general goals of the proposed program and the inclusion of the introductory course and the capstone reflection course. The CFAES feels that there are ways that this program could be improved so that it would have the full support of the College. **As it stands, the CFAES does not support the proposed program.** We think the following ideas could potentially strengthen the program:

1. Narrowing the selection of courses so that there is a more defined set of learning outcomes and/or specific domains. As it stands, there are so many courses and so many options that it lacks a coherent identity.
2. Including courses that provide a specific skill or skillset that could be of value to students entering the job market and clearly identifies/signals to students and employers what they can expect this certificate to provide
3. Creating specific clusters of courses that indicate a clear subject domain or set of skills that will be of value to students.

There are three overarching concerns.

The **first** is that, as currently designed, the program does not seem to provide students with a clearly demonstrable skill set that will distinguish them on the job market (or for a graduate program). We appreciate the emphasis on systems thinking, but the stated objective of giving students a deeper understanding of the relationship between multiple systems is not an easily measurable objective; and it is also one that is shared by existing programs on campus. In general, certificate programs should provide a defined skillset or set of tools that allow students to demonstrate a clear competency. Otherwise, it will be hard for students to indicate the value of the program and it might lead to

dissatisfaction among employers who have expectations based on existing professional certification and accreditation programs.

The developers of the program took a great first step in identifying other, similar programs as models. However, many if not all of those programs differ in that they (i) are narrower and more focused, (ii) have some kind of practical skills development (communications skills, policy skills, organizational management, analytical skills, etc.), and/or (iii) they are linked to a specific domain (e.g. energy, environmental justice, food systems). The proposed program does not have any of these features. For example:

- the SESTEP program through Idaho has a number of very specific skills-based outcomes including stakeholder analysis and management, tools and methods for monitoring and collecting data, GIS tools, data synthesis techniques, etc.
- Illinois' program is much narrower, has a smaller number of courses to choose from, and includes course like Environmental Consulting and Sustainable Organizations that may provide more practical knowledge
- Iowa's program has a section on communication, ethics and interpretation
- Duke's program has more narrowly defined pathways that signal an emphasis in a particular domain

Second - and related - as currently designed, it is unclear what the certificate program adds that is not already covered by existing minors on campus. Students have ample opportunity to be exposed to systems thinking and become better critical thinkers, which are two the key goals of the program. The proposal notes that there are several existing programs; but suggest that these programs are deficient because they require a full minor and/or fail to incorporate social science. But it's unclear what advantage this certificate has over a minor (it's approximately the same number of credits), and there are several existing minors that do incorporate social science – including the EEDS minor (not listed in the proposal), and the minor in Society and Environmental Issues. We're not suggesting that these minors are the same as the proposed certificate; but that there is clearly overlap and that these minors do not suffer from the challenges identified with this proposal.

Third – and related to the first two points, this certificate program has the potential to “muddy the water” when it comes to sustainability programs at OSU. We believe it is important that students and employers have a clear sense of the distinction between the various sustainability-related programs at OSU so that both sides of the equation know what they are getting. The designers of the certificate noted the catalog of courses that was developed by SELC with support from SI, so they are aware of the large number of classes that already fall under the “sustainability” umbrella. In addition, there is already an existing major (EEDS) and associated minor (EEDS) that incorporate the learning goals and expected learning outcomes outlined in the proposal. If it would be helpful, the SENR in CFAES would be willing to share the updated learning objectives for the EEDS major with the developers of this certificate.

A concern is that this additional program might make it difficult for students and employers to know how the multiple “sustainability” options at OSU differ and what the advantages are of choosing one over another. If there is interest in developing a strong, well-recognized sustainability “brand” at OSU, the CFAES believes that there are ways units can work together to identify mechanisms that will allow such a brand to gain recognition to benefit our students and OSU as a whole. We're concerned that, as designed, this certificate program doesn't provide a novel and specific way of contributing to that goal.

There are other concerns that have been raised by faculty in the college. These include:

- Can students be provided with a holistic understanding of SARSEES without taking a course on the economy and/or on governance and politics? This content is embedded in some of the courses that are listed, but students may need a foundation in some of that material first. Some of the courses listed may require prerequisites that would limit a student's ability to take that course – and students could easily move through this curriculum without taking a course that touches on economic factors or governance issues.
- Related, the faculty in HCS raised concerns about the prerequisites for one of the courses, HCS 5602, and several alternative courses were offered as suggestions if this becomes an issue for their students
- Some of the courses listed in the ecosystems set do not integrate ecological knowledge with human impacts on the environment – at least not in any meaningful depth. For instance instructors in SENR suggested that ENR 2360 is not suited for that section because it includes very little mention of anthropogenic impacts. There were also concerns about HC 2201 and EEOB 2410 which do not appear to directly address human impacts other than in a superficial way. This raises some questions about the depth of integration that exists in other courses.

As mentioned above, I will forward the direct input from AEDE to you, following this message. Please let me know if you have any questions or need additional information. (5/10/2021)

Agricultural, Environmental and Development Economics (AEDE)

AEDE does not support the proposed program. While AEDE finds the overall goals of the program to be laudable, we offer some input below to reflect what we see as issues with the program and recommendations for consideration.

1) This certificate program has a lot of overlap with the EEDS major and minor, which is housed in the School of Environmental and Natural Resources.

2) The learning outcomes may perhaps be hard to achieve in four courses, especially with the broad array of choices the students have. Such a broad array can lead to a lack of focus or gaps in content. For instance, how could a student "Describe dynamic couplings between social systems, earth systems, and ecosystems" with a certificate, and possibly a major, that hasn't required that student to take a course in economics? The economic system, i.e. markets, is one critically important system that drives the sustainability of the local to global environment. If a business or economics student took this course, they potentially could derive value as they would get ecology, earth systems, and humanities, and the capstone to help embed systems thinking. But given the link between EEDS and business, as well as the EEDS minor, it's not likely that business students would take this certificate.

3) More specifically, the introductory course for the certificate, "**Social and Ecological Systems: From Problems to Prospects**," has significant gaps that make it less than ideal as the introductory course in a sustainability certificate. The course does not reflect the inclusion of any content in economics, which is one of the critical elements of sustainability. To understand potential solutions to sustainability problems, students will need to understand how markets and incentives influence current outcomes in order to develop workable ideas about how to effect change. Additionally, the idea of tradeoffs seems completely missing from the proposed course. Consider for instance the "Industrial Agriculture" topic,

which focuses on Industrial Agriculture, using the "Food, Inc." movie. It's hard to tell, but the approach has the potential to offer a one-sided interpretation of the agricultural sector, which ignores any of the nuances of food production across an incredibly diverse sector, both domestically and internationally.

We recommend considering the ENR/AEDE 2500 "Introduction to Sustainability" class as a more robust introductory course for this certificate, that would give students a balanced view of sustainability.

4) Several programs at other universities, by virtue of their design, are substantially more focused, and provide students with more value because of their focus. Those programs seem to provide students with sets of skills that will enhance their degree.

5) The skills gained in this certificate program are those associated with systems thinking, which is a good set of skills to have, but it's not obvious how students develop and enhance those systems thinking skills with the very broad set of courses included under each category, especially as a capstone where that could possibly be done isn't required. If systems thinking is the key outcome, converting the proposed introductory course into a capstone focused on showing students how to integrate across systems to develop meaningful solutions to the sustainability problems would be very useful, especially if ENR/AEDE2500 were used as the introductory course.

6) There are several other economics classes that might be considered for inclusion:

- AEDE 2580: Feast or Famine: The Global Business of Food
- AEDE 3680: Regional Economics and Sustainable Growth
- AEDE 4310: Environmental and Natural Resource Economics
- AEDE 4330: The Sustainable Economy: Concepts and Methods
- AEDE/IS 4597: Food, Population, and the Environment

(5/10/201)