

CSUS 802
Survey of Research Methods

Fall 2018
Monday 3:00-5:50 PM
019 Natural Resources Bldg

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Course description and background:

This course will provide an overview of the nature of interdisciplinary research. It will also assist in the development of skills in critiquing, evaluating and interpreting published research, as well as conducting research. The course is built on the idea that interdisciplinary research presents numerous challenges, including the integration of multiple literatures derived from various research paradigms and disciplines. Various methodological approaches and research techniques that are used in interdisciplinary studies in the social sciences and in the Department of Community Sustainability will be explored. This course provides students with the necessary skills to become competent consumers of published research. In addition, it forms a foundation from which students can begin to conceptualize their own research proposals, including a thesis or dissertation, and to choose which methods best suit their purposes.

Course Objectives

This course has the following objectives

1. To introduce the basic nature, logic and processes of research.
2. Explore the ethical and practical dimensions of fieldwork.
3. To introduce some methods used in the department of Community Sustainability.
4. To understand and critique primary research literature.
5. To improve skills in thinking critically, and reconciling disparate or conflicting information.
6. To develop a research proposal that coincides with the student's interests. Preferably on a potential topic for your thesis or dissertation.
 - a. Formulate a research question
 - b. Develop a literature review in the context of the research question.
 - c. Select the methodology to answer that research question
 - d. Describe the data collection procedures needed to address the research question

Student Learning Outcomes

At the end of the course, students should be able to:

- Understand why it is important to do research
- Formulate a research question
- Develop a literature review
- Get to know some methods used in sustainability research
- Be critical about the papers they read

Course Structure and Format

This course will include lectures, in-class activities, assignments, presentations and discussions. Typically, our class will start with a brief lecture, followed by a discussion of the course readings and student assignments. Assignments and other class activities will help you to think more about the research process and to illustrate concepts from the readings. Students should have completed the assigned readings before coming to class.

This course is an introduction to research and research methods for the first-year graduate students in the Department of Community Sustainability. The syllabus has been planned in a way that this class complements and is complemented by CSUS 800.

For some sessions, we will have guest speakers for the first half of the class. The guest speakers are professors from CSUS that will share their particular areas of expertise and the methods they use to answer their research questions. As you may have noticed some of the readings for the special guests are not listed yet.

Additionally, each student is going to be in charge of selecting one reading on a **method** and a review of one **academic reading** that they will cover in class. The student covering the academic reading will be responsible for getting the paper to the instructor one week before the reading is covered. The lecturer will post these readings (the ones from guest speakers and the ones on methods) in D2L at least one week before coming to class.

Assignments and Evaluation

Assignments

Assignments are due on the Friday before class. That will permit me to have time to read your assignment before class and to use them for the discussion, or for a class activity. These assignments are individually graded, and they represent 30 points of the final grade.

Presentations

Each student will make three presentations in class during the semester.

a) Each student will be in charge of presenting one method during the semester. Starting in September we will cover in class some methods to study the topics you are discussing in CSUS 800. Each student is responsible for presenting one method. Then, it is your responsibility to identify one topic you are interested in and then to find an article addressing that topic with a **specific method** (theory papers will not be allowed). You may need to look for more than one paper or more than one method since we are aiming to have as many methods presented in class as possible.

You will send the article or the articles to me and schedule a time to meet with me at least two weeks before the presentation. The article will be distributed to all students to read before class through D2L. The day of the presentation you will present the method (not the article) to your classmates. The presentation will be timed and part of the grade is to keep the presentation between 10 and 15 minutes.

Together with that presentation you will need to prepare a one to two-page summary of your method to hand out to your classmates (I will make the copies for everybody).

You will also need to (b) summarize and present a research article to the class. Starting in late September students will identify an article of interest that uses a certain method, and present in a 8-10 minute presentation the main question presented in the article, the research methods used to answer that question, a review and critique of the analysis and a review of the inference made based on the data presented. A handout will be provided outlining what is expected for the presentation. All articles reviewed will be provided to the instructor to be passed out a week before-hand so students can review the paper before the class where you present the material.

The main purposes of this assignment are: 1) to introduce a method to your classmates, 2) to gain practice giving a good, short presentation, and 3) to learn to summarize the main ideas of that method. That presentation together with the handout is worth 15 points of your final grade (if you do not provide the hand-out on time, the presentation will be graded at no more than 10 points). These presentations will not cover all the methods that can be used in the topics discussed in CSUS 800, or represent all that are used to study sustainability, but they will provide the students a good understanding of the diversity of methods available.

The last presentation (c) takes place the day of the final exam when you will present your research proposal. You will have 7 minutes for the presentation and 3 minutes to address questions from the audience. That presentation is worth 5 points of your final grade.

A research proposal

By the end of the semester each student should have a research proposal. The research proposal (approx. 10 pages) is due at the end of the semester, and it should include at least 15 articles in the bibliography (1 inch margins, 12 Times Roman font, 1.5 spaced). During the semester students will have some assignments associated with that research proposal. At the end of the semester, students will be required to give comments on the proposal of one of their classmates and also to present their work to the rest of the class (see b in previous section of the syllabus).

Each student will write a research proposal on a topic of their choice. This proposal is an exercise that need not be on the same topic as your master thesis, or dissertation, although it can be. This paper will be completed in two steps: (1) select a research question and situate it in the existing literature (Part I); (2) develop an appropriate research design to answer your question (Part II). Part I of the research proposal is worth 15 points and Part II represents 20 points of your final grade. Notice that a proper bibliography is expected for Part I and Part II, and it is portion of your grade. I have posted in D2L the final proposals of a few students that took CSUS 802 in the past, I also added some Master thesis research proposals of some students from the CSUS. Both types of proposals may serve as a guide for this exercise.

Please be aware that the Master's thesis proposals are for their Master's thesis and not the research proposals that they did in this course. But those will give a clear idea of the type of proposals you should have to defend in your Master's proposal.

Participation

Class participation is worth 10 points toward your overall grade. There are many ways to participate and this is less a matter of speaking up all the time and more about being engaged and making a good effort to contribute to the class.

Other

I reserve the right to raise the overall grade a bit for students who have worked hard, demonstrated that they have learned and have made positive progress during the semester.

Overall grading for the class

| | <i>Total point</i> |
|-------------------------------------|---------------------------|
| Assignments | 20 |
| Presentation of Methods | 15 |
| Presentation of Peer Reviewed Paper | 10 |
| Research proposal Part I | 15 |
| Research proposal Part II | 25 |
| Presentation of Research proposal | 5 |
| Participation | 10 |
| <i>Total:</i> | <i>100</i> |

Grading scale for the course

| | |
|------------|-----------|
| 93 to 100% | 4.0 |
| 87 to 93% | 3.5 |
| 80 to 87% | 3.0 |
| 75 to 79% | 2.5 |
| 70 to 74% | 2.0 |
| 65 to 69% | 1.5 |
| 60 to 64% | 1.0 |
| <60% | no credit |

Late Assignments

Late submission of assignments will be discounted 25% of the total possible points. This is only fair to those in the class who made every effort to meet deadlines; otherwise they would be disadvantaged relative to those who submitted late and had more time.

Unexpected events take place and factors out of our control can obstruct our plans. I will be highly sensitive to such things, and any student with personal circumstances that hamper their ability to carry out certain tasks on time are encouraged to contact me in advance. On the other hand, I will be much less flexible if students do not contact me in advance.

Grief Absence Policy

Michigan State University is committed to ensuring that the bereavement process of a student who loses a family member during a semester does not put the student at an academic disadvantage in their classes. If you require a grief absence, you should complete the "Grief Absence Request" web form (<https://www.reg.msu.edu/sitemap.aspx?Group=7>) no later than one week after knowledge of the circumstance. I will work with you to make appropriate accommodations so that you are not penalized due to a verified grief absence.

Attendance

You are expected to attend all classes and you should plan to inform me when you might be absent, and give valid reasons for your absence.

Policy on Plagiarism:

Plagiarism in written assignments (i.e. the copying of material without citation of the source) is unacceptable behavior. It will lead to a zero on the assignment.

Topics and Reading Materials

All the readings for this course will be available electronically on *desire2learn* (<https://d2l.msu.edu/>) a few weeks ahead of the assignment.

| Date | Topics and Readings | Readings for this week | Assignment this week |
|----------|---|--|--|
| Aug. 29 | Course introduction | | |
| Sept. 10 | Basics of Interdisciplinary Research Guest Speaker: Rebecca Jordan | Norris, P. E., O'Rourke, M., Mayer, A. S., & Halvorsen, K. E. (2016). Managing the wicked problem of transdisciplinary team formation in socio-ecological systems. <i>Landscape and Urban Planning</i> . Haider, L. Jamila, Jonas Hentati-Sundberg, Matteo Giusti, Julie Goodness, Maike Hamann, Vanessa A. Masterson, Megan Meacham et al. "The undisciplined journey: early-career perspectives in sustainability science." <i>Sustainability Science</i> (2017): 1-14. | |
| Sept. 17 | Basics of Interdisciplinary Research Guest Speaker: Lissy Goralnik: Engaging with communities, and guide to qualitative coding | The Murders in the Rue Morgue - by Edgar Allan Poe. Booth, W.C, Colomb, G.G, Williams, J.M. 2008. The craft of Research. Chicago, Part I Intro, prologue, Chapter 1 TBD | <i>Assignment #1 due on September 24th.</i> |
| Sept. 24 | Research Question Guest Speakers: Payam Aminpor and Alison Singer: Choosing a research question with communities | Developing Research questions. Booth, W.C, Colomb, G.G, Williams, J.M. 2008. The craft of Research. Chicago: University of Chicago press. (An electronic version of the book is available in the library). | <i>Assignment #2 due on October 1st</i> |

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|---------|---|--|--|
| | Class activity based on assignment #1 | Read the prologue of part II of the chapters 3 and 4. TBD | |
| Oct. 1 | Research Question Guest Speaker: Jenny Hodbod | Booth, W.C, Colomb, G.G, Williams, J.M. 2008. The craft of Research. Chicago: University of Chicago press. (An electronic version of the book is available in the library). Read chapters 5 and 6. Aminpor et al. What is sustainability (in review) | <i>Review Assignment #2, due on October 8th</i> |
| Oct. 8 | Suzi Teghtmeyer. Library and article database research – learn how to find and access the information you need. Citation management systems, programs that will save you time and effort, will also be covered. | Read: Guevara, L. E. T., Schlüter, A., & Lopez, M. C. (2016). Collective action in a tropical estuarine lagoon: adapting Ostrom’s SES framework to Ciénaga Grande de Santa Marta, Colombia. <i>International Journal of the Commons</i> , 10(1). | <i>Assignment #3 due on October 15th.</i> |
| Oct. 15 | Research Design and sampling | Chapter 4 Research Design Babbie, E. 2013. The Practice of Social Research. 13th Ed. Cengage Learning. Chapter 7 Sampling Babbie, E. 2013. The Practice of Social Research. 13th Ed. Cengage Learning | <i>Assignment #4 due on October 22rd</i> |
| Oct. 22 | Integrating social and environmental datasets Guest Speaker Aaron McKim | TBD | |
| Oct. 29 | Methods for Decision Support | TBD | |

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|---------|---|-----|---|
| | Guest Speaker: Doug Bessett | | |
| Nov. 5 | Methods to study learning Guest Speaker: Aaron McKim | TBD | Part I of the research proposal, the literature review due on November 13th |
| Nov. 12 | Methods to study Institutions and Experiments Guest speaker: Maria Claudia Lopez | TBD | <i>Assignment 5 # due on November 19th</i> |
| Nov. 19 | Methods to study Sustainable Development through Participatory Modeling | TBD | |
| Nov. 26 | Thanksgiving break | | |
| Dec. 3 | Final Presentations | TBD | Research proposal draft due on December 10th |
| Dec. 10 | Final Presentations | | |
| Dec. 16 | Presentation of the research proposals to the class | | |
| Dec. 17 | Final version of research proposals. | | |

Very useful for all assignments in CSUS 802 and in your academic endeavor, the library offers free courses to learn how to use citation management software programs, such as EndNote, Mendeley and Zotero. I strongly recommend that you take one of those courses.

Course Assignments

September 18 : Assignment# 1

After reading The Murders in the Rue Morgue - by Edgar Allan Poe.

Identifying aspects that are important when doing a research/ investigation process. Write a one page essay describing those aspects.

September 25 : Assignment #2

Based on the reading by Booth et al. (2009).

1. Describe your topic of interest
2. Narrow your topic of interest
3. Formulate a few research questions related to your topic of interest (use how and why)
4. Why is your question important (respond this for each one of your research questions)?

September 25: Review Assignment#2 based on comments

October 2 : Assignment #3.

After reading Guevara, L. E. T., Schlüter, A., & Lopez, M. C. (2016). Collective action in a tropical estuarine lagoon: adapting Ostrom's SES framework to Ciénaga Grande de Santa Marta, Colombia. *International Journal of the Commons*, 10(1)., in two two pages address the following questions:

1. What is the research question motivating the paper?
2. What are the main findings
3. What are the strengths of the study?
4. What are 2 or 3 weaknesses of the study?
5. Do you think the methods used were the correct ones to address that question?
6. How could this study be improved?

You may need to learn more about the methodology and/or the theoretical assumptions employed by the researcher(s).

Useful websites to do this Assignment

<http://library.usask.ca/howto/evaluate.php>

http://www.lenmholmes.org.uk/students/how2read/how2read_a.htm

October 9th: Assignment #4

Provide an annotated bibliography of at least 5 articles that you are using in your literature review. The following link may be useful to understand what is an annotated bibliography <http://guides.library.cornell.edu/annotatedbibliography>. The goal of this assignment is two fold, first so that you understand what is the difference between an annotated bibliography and a literature review, and second to make you work on your literature review in case you have not started yet.

October 30. Research question and situate it in the existing literature (Part I of the research proposal).

You should write a literature review that includes at least 12 articles. The following links may be useful to comprehend what is expected in a literature review

<http://www.writing.utoronto.ca/advice/specific-types-of-writing/literature-review> and watch https://www.youtube.com/watch?v=t2d7y_r65HU.

Be aware that while doing your literature review you may reframe or rethink your research question. You should also include the correct citations and the bibliography. If you want you can give me a preliminary version of this literature review earlier in the semester. You may benefit from some comments before.

November 6: Assignment #5.

Find a researcher related to your own area of interest (examples might include your advisor, another professor or specialist from the department or from another department, or a professional in an agency/non-profit/business). Arrange and conduct an interview (preferably for one hour) focused on the methods they typically use. In advance you need to decide what type of interview you want to do (interview to be structured, unstructured)¹. Take detailed notes, or (with permission) audio record the interview for analysis.

Analyze the interview and write up a page or two on the themes that emerged, as well as your reflections on the process. You will handle this write up to all your classmates.

The interview is individual (two students cannot interview the same person at the same time), ideally each of you should interview a different professor so as not to burden any of them too much. In order to organize this process, please let me know ahead of time who are you planning to interview.

November 27. Research proposal draft

You should have a first draft of your research proposal. This draft should be substantial enough so that one of your classmates could read it and comment it. Below are some of the sections that your draft should have.

For the Introduction:

Motivation and Research question

What the literature says about your research question (in two lines)

How you are planning to address your research question? What is the novelty of your research?

Your literature review vis a vis your research question

For the methods

Describe the data collection procedures needed to address the research question

Describe the analysis needed to address the research question

¹ You will get notes about how to plan your interview ahead of time.

If you want you can give me a preliminary version of this research proposal draft earlier in the semester. You may benefit from getting comments earlier.

December 4: Assignment # 6

Peer comments

Comments on somebody else's first draft. You will write two pages commenting the first draft that somebody else did. This kind of exercise is very common in academia when you are asked to review a paper from a journal.

The following question should guide your comments:

What was the research about?

Was the research question clear?

Did the literature review justify that research question?

Were the methods the correct ones to explain that research question?

Do you have any recommendations so that the researcher could improve his proposal?

Is there something that you particularly like about the proposal?

Final December 13: Presentation of the research proposals

By now you already will have received comments on your draft proposal by the lecturer and by one of your classmates. Those comments should be addressed in you presentation.

December 15: Final research proposals are due.

"In the event of an emergency arising within the [*classroom/lab*], [*Professor, instructor, Facilitator*] will notify you of what actions that may be required to ensure your safety. It is the responsibility of each student to understand the evacuation, "shelter-in-place," and "secure-in-place" guidelines posted in each facility and to act in a safe manner. You are allowed to maintain cellular devices in a silent mode during this course, in order to receive emergency SMS text, phone or email messages distributed by the university. When anyone receives such a notification or observes an emergency situation, they should immediately bring it to the attention of the [*Professor, instructor, Facilitator*] in a way that causes the least disruption. If an evacuation is ordered, please ensure that you do it in a safe manner and facilitate those around you that may not otherwise be able to safely leave. When these orders are given, you do have the right as a member of this community to follow that order. Also, if a shelter-in-place or secure-in- place is ordered, please seek areas of refuge that are safe depending on the emergency encountered and provide assistance if it is advisable to do so."