



Department of
Community Sustainability

MICHIGAN STATE
UNIVERSITY

College of Agriculture
and Natural Resources

CSUS 802
Introduction to Interdisciplinary Inquiry

Fall 2019
3:00 – 5:50 PM Mondays
306 Natural Resource Building
Final exam Monday, December 9 from 5:45-7:45 PM

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MSU Course Catalog Description

Interdisciplinary, multidisciplinary and transdisciplinary research design. Community engagement as related to research and inquiry. Practical skills for developing inquiry projects.

Course Description

The purpose of this course is to introduce students to the elements of interdisciplinary, multidisciplinary and transdisciplinary research design and to provide them with practical guidance on how to begin a research proposal. To make this process relevant to all our graduate students, including those who will engage in research for practical purposes, we frame the research process as one of *inquiry* broadly. This approach reflects a practice of systematic, interdisciplinary inquiry that involves multiple aspects of boundary crossing, including integrating various disciplinary perspectives as well as learning how to conduct work that crosses between academic and practice communities. This broader framing encompasses multi-, inter-, and transdisciplinary approaches, as well as less academic forms of inquiry such as evaluation and action research.

Part I. The course begins with an introduction on the basics of the inquiry process, explains how the process is different when it is an interdisciplinary process, and highlights concerns that arise when working in an engaged setting. Selected examples of published works will demonstrate the diverse genres of inquiry that are represented in CSUS (e.g., hypothesis testing, emergent designs, alternative paradigm inquiry) and will illustrate the diversity of criteria that shape their ultimate design. These examples will serve as guideposts and common touchstones for the class so that shared understandings about the nature of interdisciplinary work can be developed. These concepts are put into practice with hands-on, small-step assignments as students begin to think

about their own project of inquiry. Students will also be asked to reflect on how they situate themselves relative to different approaches to inquiry.

Part II. In the second half of the course we guide students through the practical steps of developing an inquiry project, including developing a problem statement, researching sources and interpreting the literature, constructing a problem-focused literature review, developing and revising research questions, and the process of peer review and support. This set of assignments is meant to break the process down into small defined steps and to guide the student in how to create the beginnings of a research proposal. Assignments will allow for an iterative process of development and will illustrate how boundary crossing occurs as part of this process.

The final for this course will be a presentation of a literature review. Each student will have 5 minutes to present their literature review. We will invite others from outside of our class to attend with the idea of getting feedback from them.

In sum, the course aims to create a learning space that is relevant to all students, regardless of the degree program they have chosen. MS-B students will likely focus on professional applications of research or inquiry, while the others will focus on conventional academic research. Regardless of the career they pursue after graduation, all students will benefit from understanding how principles of inquiry are applied and how they can be made useful for practice.

Course Learning Outcomes

- Define and differentiate the terms and goals of: research, inquiry, multi-, inter-, transdisciplinary research and inquiry.
- Explain why it is important to develop skills to become an informed consumer of research for future careers in Community Sustainability.
- Apply critical thinking and reading skills as consumers of research.
- Define epistemology, methodology, and method and explain the practical implications of different choices of each.
- Develop an appreciation for diverse genres of research and the uses of each.
- Compare and contrast different genres of research/inquiry and explain fundamental differences in goals, underlying assumptions, and eventual study design.
- Develop a short, problem-focused literature review.
- Formulate research questions & research goals that are aligned with a problem statement and a brief problem-focused literature review.
- Demonstrate knowledge of procedures related to IRB protocol development and human subject testing, and appreciate why those procedures are important.
- Be familiar with and follow appropriate rules of authorship (as indicated by the university or a given publication outlet).
- Know what plagiarism is and how to avoid it.
- Develop practical skills that will prepare them to develop a proposal for interdisciplinary inquiry

Through CSUS 802, first-year students in CSUS also will meet the requirements for Responsible Conduct of Research certification.

Course Philosophy of Engaged Learning

The organization of this course, and I will add that maybe to all the courses in this Department, is predicated on the assumption that learning takes place best in a dynamic, interactive and critical atmosphere. Accordingly, the course relies heavily on student initiative and active participation. We will use many of the assignments and class activities to think about the decisions and steps involved in the research/ inquiry process. This syllabus is work in progress, therefore students are invited to suggest and reshape of its content. I am a facilitator for our discussions in class. That requires that you need to complete the assigned readings before coming to class.

Assignments and Evaluation

Assignments on various steps of the process

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

Short presentations

Preparing and giving a presentation is a very important skill. In any job you will be asked to give presentations and you need to be ready for that. We will do a couple of presentations throughout the semester so that you can gain experience doing them.

Critique of an article

In three pages you will do a critique of the article:

Castro-Diaz, L., Lopez, M. C., & Moran, E. (2018). Gender-differentiated impacts of the Belo Monte hydroelectric dam on downstream fishers in the Brazilian Amazon. *Human ecology*, 46(3), 411-422.

The critique should have the following elements:

1. What is the research question motivating the paper?
2. What is the problem that the paper is addressing?
3. What are the main findings?
4. What are the strengths of the study?
5. What are 2-3 weaknesses of the study?
6. Do you think the methods used were the best ones to address that question?
7. How could this study be improved?
8. What other research questions might the authors have explored on the problem they were studying? (be creative).

Annotated bibliography

An annotated bibliography is a listing of valuable sources—for this assignment academic articles—that can help you become familiar with a body of scholarship. For this assignment, provide a summary of the article (1 paragraph), a critique of the article (1 paragraph), and then a statement describing how the paper contributes to your literature review (2 sentences). Your annotated bibliography should have a minimum of 10 articles.

See the Purdue On-line Writing Lab for more information on annotated bibliographies at: https://owl.purdue.edu/owl/general_writing/common_writing_assignments/annotated_bibliographies/annotated_bibliography_samples.html

Check also these other sources <http://guides.library.cornell.edu/annotatedbibliography> and <http://www.raulpacheco.org/2017/04/writing-an-annotated-bibliography/>

Literature review

Write a literature review that includes at least 20 articles. The literature review should include your research question(s), a problem statement, knowledge gaps and a bibliography. The following links may be useful to understand what is expected in a literature review

<http://www.writing.utoronto.ca/advice/specific-types-of-writing/literature-review> and https://owl.purdue.edu/owl/subject_specific_writing/writing_in_the_social_sciences/social_work_literature_review_guidelines.html. You can also watch this video https://www.youtube.com/watch?v=t2d7y_r65HU.

Be aware that while doing your literature review, you may need to reframe or rethink your research/ inquiry question(s) if you find knowledge gaps while reading the literature. That is one of the reasons for doing a literature review.

A first version of the literature review is due on November 4. That version will be reviewed by me and by one of your classmates. I also encourage you to share and discuss the literature review with your advisor. With the feedback you receive, you should update the literature review and prepare the presentation you will do where others in the Department are invited. The presentation should last 5 minutes and you will have 5 minutes for questions from the audience. The presentations will take place on December 9, and the final version of the literature review is due on December 9 as well.

Peer review literature review

Write 2 pages commenting on the first draft of the literature review of one of your classmates.

This kind of exercise is common in academia when you are asked to review a paper submitted to a journal. The following question should guide your comments:

1. Was the problem statement clear?
2. Was the research question clear?
3. Did the literature review justify that research question?
4. Do you have any recommendations that the researcher could use to improve the literature review?
5. What do you like about this literature review?

Optional: Recommend some other articles that you know are relevant for that literature review

Assessment / Grading

Assignments and presentation on various steps of the process	30%
Critique of an article	10%
Annotated Bibliography	10%

Literature review.	30%
Peer review literature review	10%
Presentation of literature review	10%

Total 100%

Grading Scale

Each assignment will be assigned a score as described in the assignment descriptions. Then each assignment is weighted according to the above percent. Grades for the course are determined as follows:

MSU grade points	Composite class points
4.0	95.0 - 100.0
3.5	90.0 - 94.9
3.0	80.0 - 89.9
2.5	75.0 - 79.9
2.0	68.0 - 74.9

Responsible Conduct of Research

MSU requires that all graduate students undergo training in the responsible conduct of research (RCR). During the first year they must undergo five hours of training and then three hours each year thereafter. Each department designs its own approach for RCR training. In the Department of Community Sustainability the current system involves two hours of on-line training and three hours as part of CSUS 802. Our approach for this will be to devote one session of the class to RCR (on September 16) and to assign the on-line work during the same week. Academic integrity is a fundamental value of higher education at any institution of higher education; therefore, we cannot tolerate acts of cheating, plagiarism, falsification or attempts to cheat, plagiarize or falsify. Should we determine that an academic integrity violation has taken place, we reserve the right either to assign a grade sanction or to refer the case to appropriate campus authority. Ignorance (not knowing the rules) is NOT an excuse for an academic integrity violation. Therefore, if you have any questions about what constitutes academic dishonesty, please do not hesitate to speak with us before you turn in a test or assignment. We will devote the session on September 16 to a discussion of responsible conduct of research.

Late Assignments

Since learning how to meet deadlines is an essential skill for all academics and professionals, all deadlines are taken as seriously here, as they are in the real world of work. Late submissions of assignments will be discounted 20% 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 took more time.

Unexpected events

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

Communication Policy

Email is the best method for sharing information with me. I will do my best to respond within 24-48 hours of your email. **Please include “CSUS 802” in all email subject lines so it gets prompt attention.**

Cellphones

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. Please do not text or send emails during class. This is a collective action problem: calls, texts and emails only “benefit” you, but cause discomfort to others. So please don’t.

Accommodations for Students with Disabilities

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at rcpd.msu.edu. Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to an instructor during the second week of class and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date may not be honored.

MSU 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 (found at <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.

Disability Accommodations

If you require special accommodation due to a disability, please contact the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at rcpd.msu.edu. Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc.). I am happy to work with you to make sure you have the environment and materials necessary for your successful performance in the class. In addition, please feel free to contact me if any of the materials used in the course present accessibility challenges.

Disruptive Behavior

Article 2.III.B.4 of the Academic Freedom Report (AFR) for students at Michigan State University states: "The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned." Article 2.III.B.10 of the AFR states that "The student has a right to scholarly relationships with faculty based on mutual trust and civility." General Student Regulation 5.02 states: "No student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . .) such that the function or service is obstructed or disrupted. Students whose conduct adversely affects the learning environment in

this classroom may be subject to disciplinary action through the Student Faculty Judiciary process.

MSU Guidelines for Handling Emergencies

In the event of an emergency arising within the class, the Professor will notify you of what actions 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 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.

MSU recommends including the following language in all course syllabi:

Academic Integrity:

Article 2.III.B.2 of the Academic Freedom Report states: “The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards.” In addition, the Department of Sustainability adheres to the policies on academic honesty specified in General Student Regulation 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations.

Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the www.allmsu.com Web site to complete any course work in this course. Students who violate MSU regulations on Protection of Scholarship and Grades will receive a failing grade in the course or on the assignment. Contact your instructor if you are unsure about the appropriateness of your course work. (See also <http://www.msu.edu/unit/ombud/dishonestyFAQ.html>). **There will be no warnings – the maximum sanction allowed under University policy will occur on the first offense.** Turnitin.com will be used for all written assignments.

Title IX

"Michigan State University is committed to fostering a culture of caring and respect that is free of relationship violence and sexual misconduct, and to ensuring that all affected individuals have access to services. For information on reporting options, confidential advocacy and support resources, university policies and procedures, or how to make a difference on campus, visit the Title IX website at www.titleix.msu.edu."

Unless identified as a confidential source, all university employees are obligated to promptly report incidents of sexual harassment, sexual violence, sexual misconduct, stalking, and relationship violence that: – Are observed or learned about in their professional capacity – Involve a member of the university community or – Occurred at a university-sponsored event or on university property Employees are only required to report relationship violence and sexual misconduct of which they become aware in their capacity as a university employee, not in a personal capacity.

Limits to Confidentiality

Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, may not be able to maintain confidentiality when it conflicts with their responsibility to report certain issues based on external legal obligations or that relate to the health and safety of MSU community members and others. As the instructor, I must report the following information to other University offices if you share it with me:

- Suspected child abuse/neglect, even if this maltreatment happened when you were a child,
- Allegations of sexual assault or sexual harassment when they involve MSU students, faculty, or staff, and
- Credible threats of harm to oneself or to others.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like to talk about these events in a more confidential setting you are encouraged to make an appointment with the MSU Counseling Center.

Writing assistance

Use the resources that the University has to help you improve your writing. If English is not your native language or if you are not a good writer visit the MSU Writing Center (www.writing.msu.edu). The assistance you receive will help you with the assignments for this course, but also help you learn how to write more effectively. That is a skill you will use a lot in the coming years.

Course outline and readings

Week 1. Wednesday August 28.

Course introduction

Week 2. September 9

What is research? What is inquiry? What is the purpose of each?

Guest Speaker Kim Chung

Assignment: write 1-2 paragraphs explaining how you understand the differences and commonalities between research and inquiry, and why these could be important in your academic endeavors.

Week 3. September 16

Responsible conduct of research

We will discuss in class any questions/concerns you may have from the materials assigned for this week, including the CITI module trainings. In addition, we will cover material presented in the Grad School's session on plagiarism in the Responsible Conduct of Research seminar series.

Assignments and Readings:

Complete the CITI Module Trainings: Introduction to the Responsible Conduct of Research, Authorship, Plagiarism, Research Misconduct (these videos will take you 1 hour).

Resnick, B., & Belluz, J. (October 24, 2018) A top Cornell food researcher has had 15 studies retracted. That's a lot. Vox. Retrieved from <https://www.vox.com/science-and-health/2018/9/19/17879102/brian-wansink-cornell-food-brand-lab-retractions-jama>

The MSU guidelines for authorship at <https://vp.research.msu.edu/michigan-state-university-guidelines-authorship>

Wilson, E., Kenny, A., & Dickson-Swift, V. (2018). Ethical challenges of community based participatory research: exploring researchers' experience. *International Journal of Social Research Methodology*, 21(1), 7-24.

Week 4. September 23

Illustrations of different genres of inquiry/research

Readings:

Eustice, C., McCole, D., & Rutty, M. (2019). The impact of different product messages on wine tourists' willingness to pay: A non-hypothetical experiment. *Tourism Management*, 72, 242-248.

Piso, Z., Goralnik, L., Libarkin, J., & Lopez, M. C. (2019). Types of urban agricultural stakeholders and their understandings of governance. *Ecology and Society*, 24(2).

Gray, S, Singer, A, Schmitt-Olabisi, L , Introne, J, & Henderson J. (2017). Identifying the causes, consequences, and solutions to the Flint Water Crisis through collaborative modeling. *Environmental Justice*, 10(5), 154-161.

Darling, B., Kerr, J., Thorp, L., & Chung, K. (2014). Engaged Learning and Peace Corps Service in Tanzania: An Autoethnography. *Journal of Higher Education Outreach and Engagement*, 18(4), 17-38.

Assignment: after reading the assigned articles, what can you say about the differences in the research design of these studies? What can you say about the validity of their results? Do you think that some designs have more validity than others? If so, why?

Week 5. September 30.

Locating ourselves: epistemology

Guest Speaker Kim Chung

Readings:

Crotty, Michael. 1998. Introduction: the research process. Chpt 1, pp 1-17 in *The Foundations of Social Research*. Allen and Unwin.

Assignment: TBD

Week 6. October 7.

Multi-, Inter-, and Transdisciplinarity

Guest Speaker: Patricia Norris

Readings

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. *Landscape and Urban Planning*, 154, 115-122. doi.org/10.1016/j.landurbplan.2016.01.008

Haider, L. J., Hentati-Sundberg, J., Giusti, M., Goodness, J., Hamann, M., Masterson, V. A., ... & Sinare, H. (2018). The undisciplined journey: early-career perspectives in sustainability science. *Sustainability science*, 13(1), 191-204.

Beck, J. M., Lopez, M. C., Mudumba, T., & Montgomery, R. A. (2019). Improving human-lion conflict research through interdisciplinarity. *Frontiers in Ecology and Evolution*, 7, 243. doi: 10.3389/fevo.2019.00243

Another reading: TBD

Assignment: TBD

Week 7. October 14. Overview of how to design a study

Readings:

Castro-Diaz, L., Lopez, M. C., & Moran, E. (2018). Gender-differentiated impacts of the Belo Monte hydroelectric dam on downstream fishers in the Brazilian Amazon. *Human ecology*, 46(3), 411-422.

Kittinger, J. N., Coontz, K. M., Yuan, Z., Han, D., Zhao, X., & Wilcox, B. A. (2009). Toward holistic evaluation and assessment: linking ecosystems and human well-being for the Three Gorges Dam. *EcoHealth*, 6(4), 601-613.

TBD

Assignment: Critique of an article

Week 8. October 21. Visit the library

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. The class will be on Red Cedar room on 2W

Readings:

Booth, W.C, Colomb, G.G, Williams, J.M. 2016. The craft of Research. Chicago: University of Chicago press. (An electronic version of the book is available in the library).
Read the prologue of part II of the book, and chapters 3 and 4.

Assignment: Annotated bibliography

Week 9. October 28. Problem statement and research question

Readings:

Booth, W.C, Colomb, G.G, Williams, J.M. 2016. The craft of Research. Chicago: University of Chicago press. (An electronic version of the book is available in the library).
Read the prologue of part II of the book, and chapters 5 and 6.

Assignment:

You have been reading some articles on your topic of interest, now you are ready to:

1. Describe your topic of interest
2. Narrow your topic of interest (as stated in the readings)
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)

Be prepared to do a 4-minute presentation about your topic of interest and your research question (choose one)

Week 10. November 4. Identification of knowledge gaps and questions of inquiry

Assignment: First draft of the literature review is due>

Week 11. November 11. Overview of a study

Assignment: Peer review of the literature review

Week 12. November 18. Introduction and Examples: Role and Choice of Methods

Readings: TBD

Assignment: TBD

Week 13. November 25. Sampling and Scale: Introduction and Examples

Readings: TBD

Assignment: TBD

Week 14. December 2. TBD

Week 15. December 9. Final

Winter Break Homework

MS students in CSUS are asked to make desired revisions to their prospectus during break and arrive at the start of spring semester with refined inquiry questions that represent what they want to work on for their thesis or Plan B project. The proposal writing course will assume that all students will begin with a set of research/inquiry questions that they are reasonably satisfied with. It is the student's responsibility to work with their advisor to ensure that they are ready for the proposal writing course at the start of spring semester.