Department of Community Sustainability

MICHIGAN STATE UNIVERSITY | College of Agriculture and Natural Resources

CSUS 320
Environmental Planning and Management

Fall 2017
225 Natural Resources Building
Thursday, 4:10 – 7:00 PM
3.0 credit hours

Instructor: Professor John J. Paskus
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Office Hours: Thursdays, 3:00 – 4:00 PM
or by appointment

Catalog Course Description: Concepts, principles and objectives of environmental planning and management. Demand, supply and impacts of natural resources use. Suitability assessment for sustainable development and community/land use planning.

3 credits: weekly sessions, bi-weekly assignments, midterm & final exams.

Course Outcomes: Students who complete this course will be able to:

1. Identify the essential components and principles of environmental planning, management and sustainable community development.
2. Identify and apply a cross-disciplinary and multifaceted approach to understanding sustainability.
3. Develop and apply critical thinking and analysis skills to evaluate the credibility of sustainability policy positions and scientific arguments.
4. Improve decision-making capabilities within the context of sustainability.
5. Use information technologies in their formal and informal learning.
6. Consider the importance of the legal and regulatory framework in undertaking environmental planning and successful implementing environmental management projects/programs.
7. Apply systems thinking approaches in environmental planning and management.

These course outcomes support the Department of Community Sustainability undergraduate program competencies of critical thinking, systems thinking, and ethics. Successful completion of this course provides students with the background needed to frame complex problems and address them systemically in order to successfully complete additional courses in the major.

Students can learn more about the Department of Community Sustainability undergraduate program competencies at http://www.csus.msu.edu/undergraduate/sustainability_core.

In addition, this course supports Michigan State University's Undergraduate Learning Goals of analytical thinking and integrated reasoning. More information about MSU's Undergraduate Learning Goals is available at http://learninggoals.undergrad.msu.edu/.

Course Overview: As the title implies, this course will introduce students to and deeply explore key concepts of environmental planning and management to provide foundations for understanding, pursuing the practical objectives of, and attain a meaningful understanding of the requirements of employment in the field of environmental, watershed, community and land use planning and management.

The course is also informed by and built upon foundational concepts of sustainability. Sustainability is generally understood to require integration of theory and methods from a number of different scientific and social science disciplines. Our approach is to suggest numerous fundamental paradigms that guide sustainability in resource and community planning and environmental management today. One is grounded in the debate over limits to economic growth and the indefinite expansion of resource utilization implied by global economic development and increasing human population. Another in both social and environmental scientists' growing understanding of the fragility and vulnerability of the socio-technical and ecological systems on which human beings depend. A third is an overriding guiding principle of social and environmental justice in meaningful community-led planning and environmental management practices. These paradigms are not unrelated.

Course Methods: We will rely upon lecture and class discussion of materials that articulate and analyze the key theoretical concepts and perspectives noted above. We will also rely heavily on case studies as ways to elucidate, exemplify, and operationalize course concepts. Student performance will be evaluated in accordance with the activities discussed below under Grading.

Required Text: There is no required textbook, however, select materials will be made available from a variety of sources including: 1) Environmental Planning and Management (Randolph 2004), 2) The Environmental Handbook (Daniels and Daniels 2003), and 3) The Living Landscape: an ecological approach to landscape planning, Frederick Steiner. Course syllabus, lectures and supporting materials will be posted weekly on the CSUS 320 Desire to Learn (D2L) site (https:/d2l.msu.edu).

Grading: Grading for this course will be based on the following point system:

Total possible points:	**260 points**
Exam #1	100 points
Final exam/Exam #2	100 points
Bi-Weekly Assignments	60 points

Grading Scale:

Grade	Percentage
4.0	93 - 100%
3.5	86 - 92%
3.0	80 - 85%
2.5	75 - 79%
2.0	70 - 74%
1.5	65 - 69%
1.0	60 - 64%
0.0	<60%

Week 1 (Aug. 31)

Overview of Course, and Environmental Planning & Management

Provide an overview of the Syllabus, schedule, grading, goals of the course and course topics. We will also discuss the different perspectives of Environmental Planning and management – particularly those of the students.

Week 2 (Sept. 7)

Introduction to Environmental Planning and Management

Introduction to Environmental Planning and Management – what is it, issues, key components, influences, as well as different roles of the planner.

Reading Assignment: Randolph 2004, chapters 1 and 2; Steiner 2000 chapter 1

Week 3 (Sept. 14)

Land Use and Community Planning (Part 1)

Legal Foundations of Community Planning & Land Use Regulation. The power and limits of local governmental regulation of environment and land use, property rights, the public trust and the takings issue. Basics of Land Use Planning & Zoning (Part 1). An introduction to community planning and land use regulation in Michigan.

Reading Assignment: Randolph 2004, chapter 3; Daniels and Daniels 2003, chapter 2.

Week 4 – (Sept 21)

Land Use and Community Planning (Part 2)

Basics of Land Use Planning & Zoning (Part 2). An introduction to community planning and land use regulation in Michigan. Case studies – Bay Township Master Plan, Charlevoix County.

Reading assignment: Steiner 2000, chapter 10

Week 5 – (Sept. 28)

Land Development: Implementation tools and techniques

An Overview of Michigan's Land Division, Site Condominium and Subdivision Control Acts– How Does Land Get Divided and Developed? Development Rights: Introduction to the purchase and transfer of development rights, and conservation easements. Case study – land protection program Peninsula Township, Grand Traverse County.

Reading assignment; Select articles TBD

Week 6 – (Oct. 5)

Overview of the Great Lakes Region

Provide an overview of the history, natural resources, and biological diversity as well as issues such as invasive species, ownership and development patterns, legacy pollution, and exploitation associated with the Great Lakes Region. We will also discuss ongoing efforts to protect Michigan's natural resources.

Reading Assignment: Select articles TBD

Week 7 – (Oct. 12)

Local Tools for Natural Resource Protection

Review basics of water science, fundamentals of land use and water resource management and protection, as well as both regulatory and non-regulatory tools for Local Government. Will include a case study focused on the mouth of the Kalamazoo River and adjacent Lake Michigan shoreline.

Reading assignment: Randolph 2004, chapter 7

Week 8 – Mid-term Exam (#1) (Oct. 19)

Week 9 – (Oct. 26)

Watershed Protection/Management Planning

Components and principles of watershed protection/management planning. *Case study Upper and Lower Herring Lakes Protection Plan 2015 -2016, Benzie County, as well as the Nestle Water Bottling Plant, Mecosta County, Michigan.*

Reading assignment: Randolph 2004, chapter 10; Marsh 1998, chapter 9

Week 10 – (Nov. 2)

Wetland Planning and Management

Wetland Science and Regulation. An introduction to wetland science, planning and regulation in Michigan. Case study: Inland Seas Education Association constructed wetland project, Suttons Bay, Leelanau County.

Reading assignment: Daniels and Daniels, chapter 10; Guidelines for Wetland Identification and Evaluation: Needs and Opportunities for Local Protection. MSUE Research Report 572.

Week 11 – (Nov. 9)

Planning for Community Infrastructure

Community Infrastructure Planning and Investment. *An overview of community infrastructure planning, impacts, cost of community services, and case studies: Flint Water Crisis, Genesee County, Michigan. Short award winning documentary: Here's to Flint.*

Reading assignment: Select articles TBD

Week 12 – (Nov. 16)

Energy and the Environment

An overview of the sources of, demands for, and impacts of energy development in the US and Michigan, as well as energy planning and regulations in Michigan. Case studies: Kalamazoo River oil spill and Pipeline 5 in the Straits of Mackinac.

Reading assignment: Daniels and Daniels 2003, chapter 17.

Week 13 – (Nov. 23)

No Class – Thanksgiving Break

Week 14 – (Nov. 30)

Landscape Scale Conservation Planning

Holistic approaches to managing ecologically defined landscapes. Explore key concepts such as scale, natural processes, and adaptive management. Case studies from around the U.S.

Reading assignment: Steiner 2000, chapter 7

Week 15 – (Dec. 7)

Landscape Scale Conservation Planning - Continued

Examine 4 different approaches to conservation planning at the landscape scale in more detail. Case studies for each method will be presented and discussed. If time permits we will also review course material for the final exam, and conduct a survey to determine how to improve the course.

Final Exam - Wed. Dec. 13, 5:45 - 7:45 PM. Rm 225, Natural Resources Building.

Final exam covers the second half of course materials only, not a comprehensive final exam.

Exams: No make-up exams will be scheduled. A written statement from a doctor will be required if medical reasons exist for failure to submit an exam during the examination period. In the event that absence during an examination exists, alternative means of grading student progress may be utilized.

ALSO NOTE : 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.

Reading and Viewing Assignments: No textbooks are required for CSUS 320: Environmental Planning and Management. However, Professor Paskus encourages three books that will support material covered in class: 1) Environmental Land Use Planning and Management, John Randolph, Island Press, 2004, ISBN 1-55963-948-2, 2) The Environmental Planning Handbook

for Sustainable Communities and Regions, Tom and Katherine Daniels, Planners Press, 2003, *ISBN 1-884829-66-X*, and 3) The Living Landscape: an ecological approach to landscape planning, Frederick Steiner, McGraw Hill, 2nd edition, 2000, ISBN 0-07-079398-0.

Important Dates:
Thursday, 8/31 – First day of Class
Thursday, 11/23 – Friday, 11/24 – Thanksgiving Break – No classes
Monday, 12/11 – Friday, 12/15 – Final Exams Week

Technology Use: While in class, students should turn off and put away their cell phones or other devices. Sending and receiving texts or email messages by computer, tablet, or smart phone during class is distracting to students and instructors and is prohibited. The instructor will call out students who are using such devices for such purposes during class and ask them to stop or leave the classroom.

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 (i.e., test, project, etc.). Requests received after this date may not be honored.

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.

Instances of plagiarism constitute academic dishonesty and will result in a grade of zero for the assignment in which plagiarism occurs. See https://www.msu.edu/unit/ombud/academic-integrity/plagiarism-policy.html for a definition and discussion of plagiarism.

Faculty are required to report all instances in which a penalty grade is given for academic dishonesty. Students reported for academic dishonesty are required to take an online course about the integrity of scholarship and grades. A hold will be placed on the student's account until such time as the student completes the course. This course is overseen by the Associate Provost for Undergraduate Education.

Citations and references: The APA format should be used for any in-text citations and reference lists when you rely on information from other sources for writing homework assignments. A good reference site for APA style can be found at https://owl.english.purdue.edu/owl/resource/560/01/.