

CSUS 320
Environmental Planning and Management

Spring 2017
Wednesday, 5:00 p.m. – 7:50 p.m.
221 Natural Resources Building

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Office Hours: Thursdays, 2:00 p.m. – 4:00 p.m.
or by appointment

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

3 credits, Lecture/Recitation/Discussion 3 hours.

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 successfully implementing environmental management projects/programs.
7. Apply life cycle analysis and 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 and use case studies as ways to both elucidate, exemplify and operationalize course concepts. Student performance will be evaluated in accordance with the activities discussed below under Grading.

Required Text: No required course text. 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:	250 points
Exam #1	100 points
Final exam/Exam #2	100 points
Class attendance/participation	50 points

Grading Scale:	Grade	Points
	4.0	250 - 225
	3.5	224 - 200
	3.0	199 - 175
	2.5	174 - 150
	2.0	149 – 125
	1.5	124 – 100
	1.0	99 – 75
	0.0	under 75

Week 1 – Introduction

1. January 11, 2017 - *Introduction: Course structure, grading policy, and introductions. Legal Foundations of Planning & Zoning. The power and limits of local governmental regulation of environment and land use, property rights, the public trust and the takings issue.*

Week 2 – Foundations of Environmental Planning & Management

2. January 18, 2017 – *Legal Foundations of Planning & Zoning. The power and limits of local governmental regulation of environment and land use, property rights, the public trust and the takings issue.*

Week 3 – Land Use and Community Planning

3. January 25, 2017 – *Basics of Land Use Planning & Zoning (Part 1). An introduction to community planning and land use regulation in Michigan.*

Week 4 – Land Use and Community Planning (continued)

4. February 1, 2017 – *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; and Antrim County landowners' roundtable (People and Land/Kellogg Foundation project).*

Week 5 – Land Development

5. February 8, 2017 – *Land Development: Plan Implementation Tools and Techniques. An Overview of Michigan's Land Division, Site Condominium and Subdivision Control Acts – How Does Land Get Divided and Developed? Case Study: The 81, Peninsula Township, Grand Traverse County, Michigan.*

Week 6 – Planning for Natural Area/Farmland Preservation

6. February 15, 2017 – *Development Rights: Introduction to the purchase and transfer of development rights, and conservation easements. Case study – land protection program Peninsula Township, Grand Traverse County.*

Week 7 – Planning for Water Supplies

7. February 22, 2017 – *Introduction to Groundwater Science. Basics of groundwater science or "hydrogeology." Focus on groundwater movement, interaction of groundwater and surface water, groundwater quantity and quality consideration and analytical techniques. Case studies of the Nestle Water Bottling Plant, Mecosta County, Michigan; and groundwater disputes at area golf courses, Leelanau and County, Michigan.*

Week 8 – Mid-term Exam (#1)

8. March 1, 2017 - **Exam #1 (100 Points Possible).**

Week 9 – No Class – Thanksgiving Break

9. March 8, 2017 – No class. Happy Spring Break!

Week 10 - Watershed Protection/Management Planning

10. March 15, 2017 – Components and principles of watershed protection/management planning. *Case study Upper and Lower Herring Lakes Protection Plan 2015 - 2016, Benzie County.*

Week 11 – Wetland Planning and Management

11. March 22, 2017 – *Wetlands: Science and Regulation. An introduction to wetland science, planning and regulation in Michigan. Select wetland violation case – Tamarack Lodge, Traverse City, Grand Traverse County. Case studies Inland Seas Education Association constructed wetland project, Suttons Bay, Leelanau County; and Norwood Limestone Quarry case, Charlevoix County.*

Week 12 – Planning for Water Quality

12. March 29, 2017 – Local governmental role in water quality protection through planning and zoning and other programs.

Week 13 – Planning for Community Infrastructure

13. April 5, 2017 – Community Infrastructure Planning and Investment. *An overview of community infrastructure planning, cost of community services, and case studies: Flint water crisis, Genesee County; Charlevoix High School, Charlevoix Walmart, Charlevoix County; and Northport Sewer System, Leelanau County, Michigan.*

Week 14 – Planning for Mineral Extraction – Oil and Gas

14. April 12, 2017 – *Oil & Natural Gas Development in Michigan. An overview of natural gas development, planning and regulation.*

Week 15 - Planning for Liquid Industrial and Oil and Gas Waste Disposal

15. April 19, 2017 – *Deep well waste injection – Hazardous, non-hazardous/liquid industrial and oil and gas waste planning, management and regulation.*

Week 16 - Final Exam

16. April 26, 2017 - Final exam - *Exam #2 (100 Points Possible).*

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

Class Participation: Class participation will be graded on the basis of student knowledge, willingness to participate, courtesy, engagement, scholarship, professionalism and the students' demonstration of ability to integrate course concepts in questions asked of speakers and/or the course instructor.

Participation and interaction with other students is a required component of this class. It is impossible to fulfill this requirement if you are not present for class meetings. Attendance will be taken each class day. Students who have three absences or fewer have an opportunity to earn all 50 possible class participation points. 5 points will be deducted for each absence in excess of three. *NOTE: The three missed class day grace period is expected to cover university excused absences including illness, family emergencies and university sanctioned activities such as student clubs, organizations or activities associated with other classes.* It is also expected to cover absences that occur because of late enrollment in the class, and other exigencies that students experience throughout the semester. There will not be exceptions to this policy except in extremely unusual circumstances. If you anticipate problems complying with this requirement, *notify the instructor as soon as you become aware of the problem!* It is not necessary to notify instructors or present excuses for specific absences.

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 (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.

Reading Assignments: No text is required for CSUS 320: Environmental Planning and Management. Optional text is The Environmental Planning Handbook for Sustainable Communities and Regions, Tom and Katherine Daniels, Planners Press, 2003, ISBN 1-884829-66-X. Students are expected to come to class having read materials posted for each session on D2L in advance of each session. Please see the instructor if alternative or additional accommodations are needed for access to course materials.

Important Dates:

Monday, 1/16/17 - University open/classes cancelled– Martin Luther King Day

Monday, 3/6/17 thru Friday, 3/10/17 - University open/classes cancelled– Spring Break

Monday, 5/1/17 thru Friday, 5/5/17 - 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 are distracting to students and instructors 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 class.

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/>.