

**WILLIAM PATERSON UNIVERSITY
COLLEGE OF SCIENCE AND HEALTH
COURSE OUTLINE**

TITLE OF COURSE AND COURSE NUMBER:

Environmental Land-Use and Planning
ENV 3890
3 credits

DESCRIPTION OF THE COURSE:

Environmental planning focuses on the critical ways in which human actions affect the natural environment and the ways by which communities and regions can best integrate human and natural environments. Environmental planners combine public policy with urban design, land use and other planning strategies to mitigate the effects of human activities on air, water, land, and ecological systems, and to promote sustainable use of energy, water and other natural resources. Contemporary examples of environmental planning include sustainable community design, green building, land conservation planning, brownfield redevelopment, renewable energy planning, urban agriculture, and sustainable transportation systems. In light of the highly interdisciplinary nature of environmental planning the class will consist of lectures, class activities, case studies from developed and developing nations, fieldtrips, and student research projects.

COURSE PREREQUISITES:

ENV 1100

COURSE OBJECTIVES:

To examine regional and global land-use problems and case studies of sustainable strategies and solutions. Particular attention will be paid to natural systems, physiographic factors, green design.

STUDENT LEARNING OUTCOMES:

1. Students will be able to describe the interconnections between environmental planning, community outreach, and human health and well-being.
2. Students will develop a deeper understanding of the role of land-use planning in shaping human landscapes and developing a sustainable future.
3. Students will develop increased skills in reading maps and town master plans.
4. Students will develop a global perspective of land-use and planning issues and best management practices.
5. Students will further their research skills by integrating scientific information for presentations and a research paper.
6. Students will be able to effectively express themselves in written and oral form through class discussions and presentations.
7. Students will be able to demonstrate the ability to think critically and analyze data through oral presentations, class discussions, and written work.

TOPICAL OUTLINE OF THE COURSE CONTENT:

1. Sustainable Development: The Concept
 - a. The elements of sustainability
 - b. Human relationships

2. True Community Is Founded On A Sense Of Place, History, And Trust
 - a. Community history
 - b. Money versus wealth
 - c. The value of social capital
 - d. Reweaving the social fabric
 - e. Grieving for our environmental/social losses
 - f. Of leisure and community

3. Nature's Inviolable Biophysical Principles And Land Use Planning
 - a. Principle 1—everything is a relationship
 - b. Principle 2—all relationships are inclusive and productive of an outcome
 - c. Principle 3—the only true investment in our global ecosystem is energy from sunlight
 - d. Principle 4—all systems are defined by their function
 - e. Principle 6—all relationships are self-reinforcing feedback loops
 - f. Principle 7—all relationships have one or more trade-offs
 - g. Principle 8—change is a process of eternal becoming
 - h. Principle 9—all relationships are irreversible
 - i. Principle 10—all systems are based on composition, structure, and function
 - j. Principle 11—all systems have cumulative effects, lag periods, and thresholds
 - k. Principle 12—all systems are cyclical, but none are perfect circles
 - l. Principle 13—systemic change is based on self-organized criticality
 - m. Principle 14—dynamic disequilibrium rules all systems

4. Planning For A Local Living Economy: Reinventing The Comprehensive Plan
 - a. Living economy defined
 - b. Community as an ecosystem
 - c. Comprehensive plan for a local living economy

5. Planning For A Local Living Economy: Nature's Biophysical Requirements
 - a. Protecting Nature's Free Services
 - b. Protecting Diversity Through Constraints To Development And Land Use Planning
 - c. The Misguided Role Of Today's Planning For Transportation
 - d. When A Community's Population Begins To Destroy Its Quality Of Life
 - e. In The End, It Is A Question Of Biological Carrying Capacity Versus Cultural Carrying Capacity

6. Reframing The Problem
 - a. All of Life Is Cyclic
 - b. We Make What We Are
 - c. Humankind In Amnesia

- d. Competing Instincts And Ecological Unconscious
 - e. Removing The Blame Factor
7. Modeling The Planning Process After Nature
 - a. Zero waste
 - b. Diversity within the planning process
 - c. Strengthening the flow of energy through self-organization
 - d. Free-flowing communication
 - e. Open space planning, an alternative process
 - f. Step-by-step: a suggested process for developing a comprehensive plan
 8. Implementing The Comprehensive Plan
 - a. Zoning ordinances
 - b. Transitioning to local living economy land use practices
 - c. Other regulatory approaches to land use control
 - d. Non-regulatory methods of controlling land use
 9. Monitoring Progress
 - a. Change and our perception of it
 - b. Creating measures of progress
 - c. Outputs vs. outcomes
 10. Ongoing Community Engagement—Citizens As Planners
 - a. Ongoing community engagement—citizens as planners
 - b. Knowing our audience
 - c. What do we need to be communicating and how
 - d. Is a "paradigm shift" occurring?
 - e. Barriers to overcome

GUIDELINES/SUGGESTIONS FOR TEACHING METHODS AND STUDENT LEARNING ACTIVITIES:

Lecture, class discussion, research projects, guest speakers, and field trips

GUIDELINES/SUGGESTIONS FOR METHODS OF STUDENT ASSESSMENT (STUDENT LEARNING OUTCOMES):

Quizzes, final exam, research project, homework assignments

SUGGESTED READINGS, TEXTS, OBJECTS OF STUDY:

Land-Use Planning for Sustainable Development, Second Edition, Jane Silberstein, M.A., Chris Maser, 2013. CRC Press Taylor & Francis Group:

<http://www.crcpress.com/product/isbn/9781466581142>

Design with Nature, Ian McHarg 1992. <http://www.amazon.com/Design-Nature-Wiley-Series-Sustainable/dp/047111460X>

BIBLIOGRAPHY OF SUPPORTIVE TEXTS AND OTHER MATERIALS:

Mannahatta, A Natural History of NYC. Sanderson E. 2013:

http://www.amazon.com/Mannahatta-Natural-History-York-City/dp/1419707485/ref=sr_1_1?s=books&ie=UTF8&qid=1389726761&sr=1-1&keywords=Mannahatta%2C

Ecological principles and guidelines for managing the use of land. Dale et al 2000. Ecological Applications 10(3)

<https://www.esa.org/pao/policyStatements/pdfDocuments/LandUsePositionPaper.pdf>

PREPARER'S NAME AND DATE:

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ORIGINAL DEPARTMENTAL APPROVAL DATE:

Not clear

REVISER'S NAME AND DATE:

Nicole Davi, December 2014

DEPARTMENTAL REVISION APPROVAL DATE:

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