

URBAN FORESTRY

3 Credits

11:216:403

Spring 2017

Instructor: Michael D'Errico

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Meets: Monday 3: (12:35 pm - 1:55 pm) ENR 123
 Wednesday 3: (12:35 pm - 1:55 pm) ENR 123

Text: Miller R W, Hauer R J, Werner L P. 2015. Urban Forestry - Planning and Managing Urban Greenspaces 3rd Ed.

As a relatively young disciplinary focus within the realm of forest management, urban forestry is a term of varied definition reflecting professional training history as much as evolving organization and insight by practitioners, policy-makers and academics alike. Generally focused on the management of vegetated spaces in highly developed and populated areas, the term can focus to specific pairing of trees on local city streets or expand to regional forest management planning for the protection of water resources to supply urban populations. It can be said that forestry is the discipline and urban is a context for management planning. This context involves the structures, people and design conventions within the developed landscape which can act independently or in concert for the betterment or decline of the environment in immediate contact with people occupying urban spaces. This course seeks to provide an introduction and overview of Urban Forestry as it plays out in New Jersey, in the United States and internationally. As such, the learning goals of this course are:

1. Provide an introduction to topics and professions in urban forestry
2. Provide a working understanding of how the discipline and practice of urban forestry is organized within NJ and nationally
3. Develop an understanding of managing trees and other urban vegetation as a community, but acted upon on an individual tree level
4. Introduce student to industry Standards and Best Management Practices, their assumptions and alternatives when assumptions are proven unreliable
5. Develop an understanding of the structures and components within an urban or community forest management plan
6. Developing an understanding of the linkage between species and site for management and performance expectations and planning for provision of environmental services to urban populations

These learning goals fit within the more generalized learning goals of the 216 curriculum:

- Goal 3: Create a natural resource management plan demonstrating an understanding of societal values and interests.

- Goal 4: Develop a comprehensive understanding of software, hardware, field and laboratory techniques commonly used in the study of ecology, evolution, and ***natural resources management***.
- Goal 5: Demonstrate the ability to design experiments and ***interpret numeric and graphical data***.
- Goal 6: Think critically, and solve problems using evidence-based reasoning.
- Goal 7: Communicate effectively orally and through written text and graphics

Outline & Schedule

Week 1	Jan. 18 - Welcome, Introductions, Expectations, Outline, Book, Grading, Community Trees DVD, Assigned Reading: Chapter 1
Week 2	Jan. 23/25 – The Urban Forest, Terminology, Trees in Crisis, Federal/State/Local/Partners, <u>Quiz</u> Assigned Reading: Chapter 3
Week 3	Jan. 30/Feb. 1 – Understanding Trees, Anatomy and Physiology, What Makes a Tree a Tree, <u>Quiz</u> , Assigned Reading: Chapter 4
Week 4	Feb. 6/8 – Understanding the Benefits and Cost of the Urban Forest Functional Uses and Design of Vegetation, <u>Quiz</u> , Assigned Reading: Chapter 5
Week 5	Feb. 13/15 – Value of Urban Vegetation, Law of Trees, <u>Quiz</u> , Assigned Reading: iTree Information
Week 6	Feb. 20/22 –i-Tree, design view, the need for counting and reporting, modeling, Assignment of i-Tree Project, <u>Quiz</u> , Assigned Reading: Chapter 6
Week 7	Feb. 27/Mar. 1 – Tree Inventories, Hazard Tree Inspection, Field Exercise, <u>Quiz</u> , Assigned Reading: CFMP Guideline Handout
Week 8	Mar. 6/8 – Community Forestry Management Plans, <u>Mid-Term Exam</u> , Assigned Reading TBD
Week 9	Mar. 13/15 – SPRING BREAK
Week 10	Mar. 20/22 – i-Tree Assignment due, Community Forestry Management Plans, Assigned Reading TDB
Week 11	Mar. 27/29 – Insect and Disease Problems, Diagnosing Tree Problems, Urban Forest Health, <u>Quiz</u> , Assigned Reading: Chapter 11

- Week 12** **Apr. 3/5** – Tree Selection, Planting and Site Assessment, Trees for New Jersey Streets, Quiz,
Assigned Reading: Chapter 12
- Week 13** **Apr. 10/12** – Tree Maintenance, Pruning, Tree Roots vs. Sidewalks, Removals and Maintenance, Quiz,
Assigned Reading: Chapter 13
- Week 14** **Apr. 17/19** – Tree Ordinances, Tree Canopy Cover, Quiz,
Assigned Reading: Chapter
- Week 15** **Apr. 24/26** – Community Involvement - Arbor Day, Tree City USA, Communications and Public Relations, Quiz
- Week 16** **May 1** – Quiz, Review for Final Exam

- Critical Thinking and Current Events papers will be assigned and due as agreed upon - - presentation of a Current Event Article will also be assigned for the student in a designed week.

EXAM WEEK: May 4th-10th:

Final Exam (Exam is Cumulative): May _____ , 2017

Grading:		Mid-Term Exam	20%
		Final Exam	25%
A	90%+	Attendance	10%
B+	87 – 89.9%	I-Tree Project	15%
B	80 – 86.9%	Quizzes	15% (Drop one)
C+	77 – 79.9%	Critical Thinking/CE*	<u>15%</u>
C	70 – 76.9%		100%
D	65 – 69.9%		
F	less than 64.9%		

*CE: Current Events

Critical Thinking/Current Events - - Each Student will be responsible for three (3) Critical Thinking questions (TBD) during the semester - - The student will answer the questions in no more than a page – doubled spaced - -Each Student will be asked to provide two (2) current events based on two chapter themes in the Book - -The Student will explain the “article” during class - -Each of the five assignments will make up 3% of the grade for a total of 15% towards the overall grade.