

# Syllabus – Urban Forestry (Forestry 444/644) – Spring 2021

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**Instructor:** Dr. Richard Hauer    Room 323 CNR    [rhauer@uwsp.edu](mailto:rhauer@uwsp.edu)    346-3642 (office)

**Office Hours:** Tuesday 10:00 – 11:50 am and Thursday 10:00 – 11:50 am. Use this link (<https://uwsp.zoom.us/j/96287053318>). You are encouraged to schedule an appointment in case I am away due to scheduled or unscheduled conflicts. It is recommended that you seek assistance if needed.

**Course Meeting Time and Location:** The lectures will be recorded and available each week. I have also reserved 9:00 – 9:50 pm on Tuesday and Thursday to meet as needed throughout the semester. Lab Section 1 meets from 8:00 – 9:50 am, Lab Section 2 meets from 1:00 to 2:50 pm, and Lab Section 3 meets from 3:00 to 4:50 pm (Outside, TNR 320 or the computer lab when noted). I will also have labs developed as stand-alone exercises.

**Attendance and Assignments:** Your attendance in class is expected and an important part of learning. Absence during an exam or labs will result in a zero unless prior arrangements have been approved. Turn in assignments on time for credit. Emergency situations, illness, and life’s challenges do arise. Please inform me as soon as practical in advance so arrangements can be made to complete any exam or assignment.

**Learning Objectives:** After completion of this class students will be able to:

- 1) Develop an urban forestry management plan.
- 2) Describe the urban forest, urban forestry, and benefits associated with green infrastructure.
- 3) Apply appropriate urban forest planning, management, and policy tools.
- 4) Conduct urban forest assessment techniques (e.g., tree inventory, tree risk assessments, tree valuation) and use this data to develop an assessment of the health, benefits, and costs associated with management of the tree population.
- 5) Develop skills with conventional and modern urban forestry tools.

This course is intended for students to learn and apply principles of Urban Forest Management of vegetation in developed areas. Urban forestry as a profession is relatively new in response to society and landscapes that are increasingly becoming developed and urbanized. However, activities associated with urban forestry are historically rooted hundreds and thousands of years ago and have evolved to the current philosophic view of green infrastructure as an important component of an urban ecosystem. You will develop skills and abilities in urban forest assessment, benefits, costs, uses, valuation methods, planning, management, and the roles of federal, state, municipal, commercial, and utility urban forestry.

**Grades:** Grades are based on exams, quizzes and projects are as follows:

<u>Evaluation Area</u>	<u>% of Grade</u>
Exam 1	15% (150 Pts)
Exam 2	15% (150 Pts)
Final Exam (comprehensive)	20% (200 Pts)
Lab Assignments & Participation	35% (350 Pts)
Urban Forest Management Plan	15% (150 Pts)

<u>Mean Score</u>	<u>Letter Grade</u>	<u>Mean Score</u>	<u>Letter Grade</u>
100 - 93	A	79 - 78	C+
92 - 90	A-	77 - 73	C
89 - 88	B+	72 - 70	C-
87 - 83	B	69 - 68	D+
82 - 80	B-	67 - 60	D
		<60	F

**Text and Readings:** Lecture and labs will be based on material in Miller, Hauer, and Werner (Urban Forestry: Planning and Managing Urban Greenspaces, 3<sup>rd</sup> Edition) and additional outside readings to supplement information in the text are in Canvas or handouts.

## FORESTRY 444 – Lecture Schedule

<b>Date</b>	<b>Course Subject Material (Lecture)</b>	<b>Readings</b>
1/26	What is the Urban Forest, Urban Forestry, Urban Forest Sustainability et. al. (L1)	Miller Chapter 1
1/28	Evolution of Cities and Urban Forestry (L2)	Miller Chapter 2
2/2	Evolution of Cities and Urban Forestry (L2)	Miller Chapter 2
2/4	Social Needs and Values of Urban Society (L3)	Miller Chapter 3
2/9	Functional Uses and Design of Urban Vegetation (L4)	Miller Chapter 4
2/11	Functional Uses and Design of Urban Vegetation (L4)	Miller Chapter 4
2/16	Wisconsin Arborist Association Virtual Conference	Handout
2/18	Values and Liabilities of Urban Vegetation (L5)	Miller Chapter 5
2/23	Values and Liabilities of Urban Vegetation (L5)	Miller Chapter 5
2/25	<b>Exam 1</b>	
3/2	Urban Forest Assessment – Street Tree Inventories (L6)	Miller Chapter 6
3/4	Urban Forest Assessment – Street Tree Inventories (L6)	Miller Chapter 6
3/9	No Formal Class – Visit Community Tree Inventory	
3/11	No Formal Class – Visit Community Tree Inventory	
3/16	Urban Forest Assessment – Park Tree Inventories (L7)	Miller Chapter 7
3/18	Urban Forest Assessment – Park Tree Inventories (L7)	Miller Chapter 7
3/22 and 3/24 No Class – Spring Break		
3/30	Policy, Planning, and Urban Forestry (L8)	Miller Chapter 8
4/1	Vegetation Ordinances (L9)	Miller Chapter 9
4/6	Vegetation Ordinances (L9)	Miller Chapter 9
4/8	<b>Exam 2</b>	
4/13	Street Tree Management – Planning & Budgets (L10)	Miller Chapter 10, 13
4/15	Street Tree Management – Planning & Budgets (L10)	Miller Chapter 10, 13
4/20	Street Tree Management – Planting (L11)	Miller Chapter 11
4/22	Street Tree Management – Planting (L11)	Miller Chapter 11
4/27	No Formal Class – Work on Management Plan	
4/29	Utility Forestry: Planning Safety and Reliability	
5/4	Street Tree Management – Maintenance (L12)	Miller Chapter 12
5/6	Street Tree Management – Maintenance (L12)	Miller Chapter 12
5/11	Tree Risk Assessment – Decision Making (L13)	Pokorny et al. (2003)
5/13	Trees & Storms – Damage & Planning (L14)	
<b>5/17</b>	<b>Scheduled Comprehensive Final Exam Date (Monday 8:00 – 10:00)</b>	

Note: Dates we do not formally meet for class

## FORESTRY 444 – Lab Schedule

Date	Course Subject Mater	Readings	Assignments Due
1/25	Class Overview Urban Forest Management Project Overview 1) Introduce Webinar Exercise 2) Urban Forestry Management Plans	Lab HO Favorite Search Engine	Group Selection
2/1	Urban Forest Assessment – Canopy Analysis Exercise (ACL & Virtual Lab)	Lab HO	Management Plan Report
2/8	Urban Forest Economics – Net Benefits and Benefit: Cost Exercise (ACL & Virtual Lab) Street Tree Inventory	Miller 198-202 Hauer et al 2015, Vogt et al. 2015, Lab HO	Canopy Analysis
2/15	Wisconsin Arborist Association Virtual Conference	Handout	Street Tree Inventory Benefit Cost Exercise
2/22	Tree Health Assessment & Tree Appraisal – Valuation Exercise (Outside Lab) Urban Forest Management Project Site Visit (Virtual Village Board Meeting)	Lab HO	WAA Assignment
3/1	No Formal Class – Management Plan City Site Visit Data Collection		Webinar Exercise
3/8	Urban Forest Assessment – Park Inventory and Management Plan Exercise (Outside Lab)	Lab HO	Tree Health/Appraisal
3/15	Site Visit Debriefing, Dataset Finalization Urban Forest Management – i-Tree (ACL & Virtual Lab)	Lab HO, skim i-Tree user manual	Park Inventory
3/23	No Class – Spring Break		
3/29	Urban Forest Management – Tree Pruning Time & Budgets Exercise (ACL & Virtual Lab)	Lab HO	i-Tree Exercise
4/5	Tree Risk Management – Evaluation Exercise (Outside Lab)	Pokorny 2003, Lab HO	Tree Pruning & Budgets
4/12	No Formal Class – Management Plan Work Time		Urban Forest Management Plan
4/19	Tree Risk Management – Evaluation Exercise (Outside Lab)	Pokorny 2003, Lab HO	
4/26	No Formal Class – Management Plan Work Time		Tree Risk Management Exercise
5/3	Urban Forest Management Plan Presentations		
5/10	Arbor Day Tree Planting		Management Plan Final Report

Note: Dates we do not formally meet for class, ACL = Advanced Computer Lab