

**VIRGINIA TECH NORTHERN VIRGINIA CENTER  
COLLEGE OF NATURAL RESOURCES**

*Course Syllabus*

**Urban Forestry**  
**NR 5984, 3 credit, CRN**  
**Spring Semester 2009**

**Class Location:**

Virginia Tech Northern Virginia Center, 7054 Haycock Road. Falls Church, VA

**Meeting Times:**

Thursday evenings, 7:00-9:45 p.m.

**Instructor:**

Gary R. Evans, Ph.D.

Office: Northern Virginia Center

Telephone: 703-538-8313; Cell phone 703-599-6149

Email Address: gaevas1@vt.edu

Office Hours: By appointment, Thursdays 6:00-7:00 p.m., at Virginia Tech Northern Virginia Center

**Course Description:**

This course focuses on the scientific practice of urban forest management, and protecting, restoring and conserving trees and related natural resources in urban and suburban environments. Urban forests provide unique connections between the livability of cities and the service functions provided by trees and green space. This course covers those forest resources and services. Conservation, management, and restoration of trees, forests and related natural resources are the core topics reviewed, including the evolution and background of today's public and private urban forestry programs. The primary focus is urban forestry from ecological, socio-cultural and economic perspectives. Rapidly changing demographics of urban areas, urban development and sprawl, resultant impacts and the political landscape also are topics. Comprehensive knowledge regarding the benefits and technology associated with maintaining, restoring and improving tree health and related natural resources, associated with economic development and greenspace restoration in declining areas of older, more mature, cities will complete this course. Sustaining urban forest systems through understanding of organization, structure, function and processes in a stressed environment are emphasized.

**Objectives:**

- Analyze economic, environmental and socio-cultural benefits of urban trees, urban forests and related resources.
- Synthesize scientific principles of urban community management, tree care and related urban area natural resource systems.
- Analyze current systems used to characterize, assess, and value the urban forest system.
- Demonstrate knowledge, at the management level, of requirements for Certified Arborist Continuing Education, including; Tree Nutrition/Fertilization; Tree Soil/Water Relations Construction Preservation; ID/Selection; Pruning; Tree Risk Assessment; Installation/Establishment; Diagnosis/Treatment; Safe Work Practices; Trees/People/Ecology; Tree Biology; Cable/Bracing/Lightning Protection.
- Synthesize information, at the senior management level, about the evolution of urban forestry as a field of scientific study and practice.
- Integrate knowledge and background material to analyze and report on a current urban forest topic of choice

**Prerequisites:**

Baccalaureate degree and professional experience or by permission of the instructor.

**Texts and other Materials:**

Miller, Robert W. Urban Forestry: Planning and Managing Urban Greenspaces. 2<sup>nd</sup> Ed. Prentice Hall, Inc. 1997.

**Other References:**

Bradley, Gordon. Urban Forest Landscapes: Integrating Multi-Disciplinary Perspectives. University of Washington Press. 1995.

Grey, Gene. The Urban Forest: Comprehensive Management. 1995.

Moll, Gary and Sara Ebenreck, eds. Shading our Cities: A Resource Guide for Urban and Community Forests. American Forestry Association, Island Press. 1989.

Spirn, Anne Whiston. The Granite Garden. Basic Books. 1984.

USDA, National Resource Conservation Service. 2000. "National Forestry Manual". www.nrcs.usda.gov.

Lipkis, Andy and Katie. The Simple Act of Planting a Tree: A Citizen Forester's Guide to Healing Your Neighborhood, Your City and Your World. LA Tree People. 1990.

**Course Requirements and Grading:**

Class participation is 40% of the final grade, making class attendance essential to receive a passing grade. (Some accommodation will be made for students who must miss a class due to travel associated with their employment).

Mid-term exam is 20% of the final grade.

Term paper. The final exam is a case study analysis of an existing urban forest management plan, or developing a plan that applies specifically to a student's job or special area of interest. Students will work with the instructor to identify a topic of choice for in-depth analysis and written and oral presentation. A list of topics will be available or students may suggest one of personal interest for instructor approval. Papers will be 10-12 pages long (plus illustrations and bibliography), single-spaced, and consist of a brief explanation of the topic and why it was selected, an in-depth description and discussion of the topic and major conclusions with supporting documentation and references. Students will present topics orally to their peers during scheduled class sessions. Term paper is 40% of the final grade.

**Course Calendar**

**Jan. 22:** Introduction to Urban Forestry

**Jan. 29:** Environmental benefits of the urban forest

**Feb. 5:** Economic benefits of the urban forest

**Feb. 12:** Social benefits of the urban forest

**Feb. 19:** Traditional methods for assessing and valuing the urban forest

**Feb. 26:** Urban forest ecological assessments

**Mar. 5:** Management of the urban Forest

**Mar. 12:** Spring Break

**Mar 19:** Management of the urban forest

**Mar. 26:** Managing the urban-wildland interface

**Apr. 2:** Managing urban wildlife and wildlife habitat

**Apr. 9:** Protecting trees and forests during development

**Apr. 16:** Protecting trees from construction damage

**Apr. 23:** Public support for urban forestry programs

**Apr. 30:** Class presentations

**May 7:** End of semester (and final exams)

### **HONOR POLICY**

The tenets of the Virginia Tech Graduate Honor Code will be strictly enforced in this course, and all assignments shall be subject to the stipulations of the Graduate Honor Code as outlined in the Graduate Catalog. For more information on the Graduate Honor Code, please refer to the GHS Constitution, located online at <http://fbox.vt.edu/studentinfo/gradhonor/>. Please contact the instructor immediately if you have questions.

### **SPECIAL ACCOMMODATIONS**

Students with special needs or circumstances are encouraged to meet with the instructor after the first class. If you need adaptations or accommodations because of a disability (learning disability, attention deficit disorder, psychological, physical, etc), if you have emergency medical information to share with the instructor, or if you need special arrangements in case the building must be evacuated, please make an appointment with the instructor as soon as possible (See contact information above). If you need captioning for videos, please let me know no later than two weeks in advance of date for viewing.

### **COURSE EVALUATIONS**

In the spirit of continuous improvement, the instructor seeks ways to improve this course and values your input. To that end, you will be asked to complete an evaluation on May 10. At any point during the course, your suggestions and comments are most welcome.

### **INCLEMENT WEATHER**

Decisions about canceling classes during periods of inclement weather are made by the Northern Virginia Center Director in consultation with others. Students should listen to local media for information, but weather-related advisories affecting classes are posted at [www.ncr.vt.edu](http://www.ncr.vt.edu) and announced on the Weather Alert Line 703-538-8325.