



FORESTS & PEOPLE — 2016

NRC 225 (3 credits)
SPIRE #: 64699
Thompson 102
MWF, 12:20-1:10 pm

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Office hours by appointment, please email; Monday, Tuesday, and Thursday typically best

Course website on Moodle

TEACHING ASSISTANT — Anthony Damiano (adamiano@umass.edu)



REQUIRED BOOKS (SPIRE has links to Amazon to purchase these books in multiple formats)

1. Giono, J. 1956. *The Man Who Planted Trees* (20th Anniversary Edition with Foreword by Wangari Maathai, 2004 Nobel Laureate, with wood engravings by Michael McCurdy)
 2. Foster, D.R., and J. F. O'Keefe. 2000. *New England Forests Through Time: Insights from the Harvard Forest Dioramas*
 3. Broker, Ignatia. 1983. *Night Flying Woman: An Ojibway Narrative*
 4. Long, Stephen. 2012. *More Than a Woodlot: Getting the Most From Your Family Forest*
- Total cost = \$50 (paperback format)

COURSE DESCRIPTION

Forests are complex and fascinating ecosystems. They have been shaped by ecological processes over 1,000s of years and also by centuries of human use, abuse, neglect, and care. Forest ecosystems are always changing—sometimes slowly, sometimes very rapidly. Although forests are essential to human health and well being, they are often taken for granted. FORESTS & PEOPLE seeks to address this nature deficit disorder by exploring the:

- (1) unique, sometimes contradictory, values that forests and natural resources have in our culture;
- (2) key characteristics of forests in the Northeast and how and why they have changed through time;
- (3) historical and contemporary leaders who have shaped the forest conservation movement;
- (4) fundamental principles of forest ecology and sustainable forest management; and
- (5) forest use patterns and trends and consequent challenges and opportunities in the 21st century.

FORESTS & PEOPLE is designed as a second-year class in the core curriculum of the Department of Environmental Conservation and a elective course for Stockbridge School students. It also serves as a comprehensive introduction to forest history, science, and conservation for other UMass and Five College students. While there are no prerequisites, college-level plant biology and introductory environmental studies and science courses are helpful. Your commitment to learning is *the* most important thing.

LECTURE AND DISCUSSION TOPICS

SECTION 1 — The unique values that trees and forests have in our culture ...and around the world

(Readings: Giono book and website)

- What *is it* about trees and forests ...in art, literature, politics, and the human psyche?
- Forests, people, and cognitive dissonance (the disconnect between rhetoric and behavior)
- What influences our values, attitudes, behavior, and decision-making in relation to forests?

SECTION 2 — The key characteristics of forests in the Northeast ...and how *and* why they have changed through time.

(Readings: Broker book, Foster and O'Keefe book to page 20, Long book to page 18)

- The Fur Trade and its profound (little known) influence on forests, people, and the course of history
- Native Americans (and First Nations in Canada) ...forest people ...timeless sustainability lessons
- Was it nature or was it nurture (...or the lack thereof) that changed forest ecosystems?
(Fisher Museum Dioramas, Harvard Forest, Petersham, MA ...Foster and O'Keefe, 2000)
- How did the transition from exploitation to conservation come about? Why vigilance is needed still.
- **EXAM 1 (Sections 1 and 2)**

SECTION 3 — Historical and contemporary leaders in forest conservation

(Readings: class website)

- Protection, preservation, conservation ...what's the difference? ...and why does it matter?
- Who were some of the key people (and groups) that led the way to the protection and conservation of forests?
- What were some of key events and turning points in public consciousness and political opinion?
...how long did it usually take to bring about lasting change? [Answer: About 20-30 years or one or two generations.] ...how can change be initiated and accelerated?
- What are key traits and methods of people (or groups) that made a lasting difference in forest conservation? What motivated their actions? How long did it take? [their lifetime and legacy]

SECTION 4 — Fundamental principles of forest ecology and sustainable forest management

(Readings: Long (2012) Chaps. 2-8, Foster and O'Keefe, 23-55, and class website)

- A *long*, often unappreciated list of benefits, values, and ecosystem services of forests ...and their inter-relationship and compatibility.
- How can we practically define and consistently implement sustainable forest management?
- Tree physiology ...Forest ecology ...Silvicultural principles and practices
- Principal components and attributes of a forest ecosystem [*not* just timber] management plan
- Non-timber values (e.g., wildlife, water, recreation, etc.) of forests as the defining or primary management goal ...and how active management can be used as the means to these ends.
- **EXAM 2 (Sections 3 and 4)**

SECTION 5 — Current patterns and trends of forest use (and abuse) ...and the opportunities and challenges they present to *all of us* in the 21st century.

(Readings: class website)

- Sprawl and forest conversion [permanent loss ...terminal harvesting ...not good.]
 - Counteracting development pressure and consumptive use with a coordinated approach to urban forestry, forest stewardship, and education and outreach programs
 - "Buy local", forest certification, and other working forest conservation techniques
- Protecting or enhancing water supplies, biological diversity, and public health [ecosystem services]
- 21st century ideas, approaches, and prototypes ...often drawing upon timeless principles and values.
- **EXAM 3 (Comprehensive ...see page 4 to learn how to earn an exemption)**

Date	Day	W.S.	Section and lecture topic (reading assignments on page 2)
20 Jan	W		Introduction, learning objectives, structure of the course, grading
22 Jan	F		1: Forest Art ...Selling Nature ...perceptions, values, and attitudes
25 Jan	M		1: Disturbance and successional pathways ...a poem and a painting
27 Jan	W		No Class (Prof. Barten taking Wilderness First Aid course in Vermont)
29 Jan	F		1: John Fowles, Anna Moses ...our choices and our actions
1 Feb	M	WS 1	2: Discussion of <i>"The Man Who Planted Trees"</i> (Giono/McCurdy)
3 Feb	W		2: When Two Worlds Met: The Fur Trade – Part 1
5 Feb	F		2: When Two Worlds Met: The Fur Trade – Part 2
8 Feb	M		2: Colonial Era → Agrarian Era → Industrial Era
10 Feb	W		2: Industrial Logging: 1880 to 1920 (The Myth of Inexhaustibility)
12 Feb	F	WS 2	2: Discussion of <i>"Night Flying Woman: An Ojibway Narrative"</i>
15 Feb	M		Presidents' Day
16 Feb	Tues		2: The Catskill Forest Preserve ...A watershed event in 1885
17 Feb	W		2: 20 th and 21 st century forests
19 Feb	F	WS 3	Review, Integration, and Synthesis of Parts 1 and 2
22 Feb	M		EXAM 1 (Sections 1 and 2, 20% of course grade)
24 Feb	W		3: The Shakers
26 Feb	F		3: George Perkins Marsh: Prophet of Conservation
29 Feb	M		3: Gifford Pinchot, Theodore Roosevelt and their contemporaries
2 Mar	W		3: Henry Graves, Raphael Zon, John Weeks, and Joseph Cannon
4 Mar	F		3: Franklin Delano Roosevelt, George C. Marshall, and the CCC
7 Mar	M		3: <i>Green Fire: Aldo Leopold and a Land Ethic for Our Time</i>
9 Mar	W		3: Sigurd Olson and the Voyageurs (Boundary Waters Canoe Area)
11 Mar	F		3: <i>Taking Root: The Vision of Wangari Maathai</i>
Spring Recess, 12-20 March			
21 Mar	M		4: Key ecological attributes of trees and forest stands
23 Mar	W		4: Forest landscapes ...disturbance, resistance, resilience, change
25 Mar	F	WS 4	4: Silviculture ...the art and the science of guiding forest change
28 Mar	M		4: Managing forests to restore or enhance wildlife habitat
30 Mar	W		4: Sustainable Forest Management ...harmonizing many uses
1 Apr	F		4: Forest Ecosystems and Wildfire
4 Apr	M		4: Fish grow on trees—How forests protect aquatic ecosystems
6 Apr	W	WS 5	Review, Integration, and Synthesis of Parts 3 and 4
8 Apr	F		EXAM 2 (Sections 3 and 4, 30% of course grade)
11 Apr	M		5: Urban and community forestry ...the new frontier
13 Apr	W		5: Restoring Chesapeake Bay ...in part, with trees
15 Apr	F		5: Watershed Forest Management Principles and Practices
18 Apr	M		Patriot's Day
20 Apr	W		5: Canadian Forest Futures: turbulence, goods, restoration, peace?
22 Apr	F		5: Learning with the James Bay Cree in <i>Feyou Istchee</i> [N. Quebec]
25 Apr	M	WS 6	Conserving Forests & Sustaining People
27 Apr	W		EXAM 3 (comprehensive, 20% of the course grade; unless exempt

STUDENT LEARNING AND PERFORMANCE EVALUATION

Component	% of course grade	Date
Exam 1	20	February 22, 2016
Exam 2	30	April 8, 2016
Exam 3*	20	April 27, 2016 (There is no final exam.)
Worksheets (6)	30	Due date will be on each worksheet
*If your course grade based on Exam 1, Exam 2, and the first 5 worksheets is ≥ 92.5 , you will earn an exemption from Exam 3. You still need to attend class and complete Worksheet 6.		

Worksheets are due **in class (typed)** on the assigned dates. **Late worksheets will not be accepted unless you have a documented excused absence.*** Worksheets are graded (10 point scale) as: unacceptable (0 – re-submit at next class), acceptable (8), good (10), or excellent (12).

ACADEMIC HONESTY POLICY OF THE UNIVERSITY OF MASSACHUSETTS AMHERST

http://www.umass.edu/ug_programguide/academicinfo/academicpolicies.html "An instructor who finds that a student has violated the University's Academic Honesty Policy may lower the student's grade, or fail the student for the course (✓). Students have the right to appeal such grade penalties by instructors. The University Academic Honesty Board, composed of faculty members and undergraduate and graduate students, reviews all student appeals. Students who have been found to have committed acts of academic dishonesty may also face suspension or expulsion from the University."

I want you to do well in this class and to develop a life-long interest in forest conservation.

You miss about 5% of the course content every time you skip a class. Since I use a narrative lecture style without written notes (i.e., the website is a supplement to, not a substitute for, our class sessions), it has been my experience that students who miss more than 2 or 3 classes rarely earn an A. Students who miss about 5 or 6 classes typically struggle to earn a C. Sporadic attendance usually leads to an F (or W). There will be no last minute "I have to pass this course to graduate" extra credit opportunities. A 50-minute UMass Amherst class costs about \$70 (or \$100 for non-MA residents). *So, don't waste your time and money. Please come to class and learn. If you do, I expect that you will have no problem earning an A or B and will be surprised at how much we can accomplish together.*

*UNIVERSITY OF MASSACHUSETTS AMHERST POLICY ON CLASS ABSENCE

http://www.umass.edu/registrar/gen_info/class_absence.htm ...and all related links

Please read and abide by these reasonable and comprehensive policies. I will meet my responsibilities as a faculty member to help students with *bona fide* excused absences (e.g., illness, family emergency, religious observance, or UMass team sport) from class. The UMass website clearly explains what constitutes an excused absence and how written documentation should be obtained (through the UMass Health Clinic, Athletic Department, or the Student Affairs Office). Please keep me informed (via email), in advance if possible, when you miss class.

Accommodation Policy Statement

The University of Massachusetts Amherst is committed to providing an equal educational opportunity for all students. If you have a documented physical, psychological, or learning disability on file with Disability Services (DS), Learning Disabilities Support Services (LDSS), or Psychological Disabilities Services (PDS), you may be eligible for reasonable academic accommodations to help you succeed in this course. Please contact me to discuss how we can best work together.