



FORESTS & PEOPLE — 2019

NRC 225 (3 credits)
SPIRE #: 18074
Morrill 1, Room N375
MWF, 12:20-1:10 pm



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Appointments: via email or made in class.
My general weekly schedule is posted on Moodle.

Teaching Assistant — Charlotte Axthelm (caxthelm@umass.edu)

Required Books (Total cost = \$31.50 + shipping, Amazon Books)

1. Broker, Ignatia. 1983. *Night Flying Woman: An Ojibway Narrative*
2. Foster, D.R., and J. F. O'Keefe. 2000. *New England Forests Through Time: Insights from the Harvard Forest Dioramas*
3. 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)

Optional book: <https://northernwoodlands.org/shop/item/more-than-a-woodlot> (augments Sections 2, 4 and 5)

Course Description

Forests are complex and fascinating ecosystems. They have been shaped by ecological processes over 1,000s of years *and* 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) case studies of key challenges and opportunities in the 21st century.

Forests & People is a second-year class in the core curriculum of the Department of Environmental Conservation and an elective course for Stockbridge School students. It also serves as a comprehensive introduction to forest history, science, and conservation for any interested UMass or Five College student (i.e., there are no prerequisites).

- If you are interested in a one-credit enrichment option to qualify NRC 225 for the UMass or Five College Native American and Indigenous Studies certificate program, please contact Professor Barten.
- Commonwealth Honors College credit is available for this class via NRC HI225 (SPIRE #: 18133); please contact Professor Barten to discuss honors project ideas before registering.

Presentation 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*)

- 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.

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]
 - **EXAM 1** (*Sections 1, 2, and 3*)

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

(*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?
- Introductory tree physiology ...Forest ecology ...Silvicultural principles and practices
- Primary 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.

SECTION 5 — Sustainable Forest Management in the 21st Century

(*Readings: class website*)

- Counteracting development pressure and consumptive use with a coordinated approach to urban forestry, forest stewardship, and education and outreach programs
- 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 2** (*Sections 4 and 5*)

NRC 225: Forests & People — Spring 2019				
Date	Day	#	Assignment due date ↓↓↓	
23 Jan	W	1	Introduction, learning objectives, structure of the course, grading	
25 Jan	F	2	1: Forest Art ...Selling Nature ...perceptions, values, and attitudes	
28 Jan	M	3	1: Disturbance and successional pathways ...a poem and a painting	
30 Jan	W	4	1: John Fowles, Anna Moses ...our choices and our actions	
1 Feb	F	5	1: Past is Prologue ... I = PAT ...Mitigating climate change	
4 Feb	M	6	1: Discussion of The Man Who Planted Trees (and assignment grading)	
6 Feb	W	7	2: When Two Worlds Met: The Fur Trade – Part 1	
8 Feb	F	8	2: When Two Worlds Met: The Fur Trade – Part 2	
11 Feb	M	9	2: Colonial Era → Agrarian Era → Industrial Era	
13 Feb	W	10	2: Industrial Logging: 1880 to 1920 (The Myth of Inexhaustibility)	
15 Feb	F	11	2: The Catskill Forest Preserve ...A watershed event in 1885 ...and 2019	
18 Feb	M	-	<i>Presidents' Day Holiday</i>	
19 Feb	Tues	12	NO CLASS	
20 Feb	W	13	2: Discussion of Night Flying Woman and Assignment 2	
22 Feb	F	14	NO CLASS	
25 Feb	M	15	3: The Shakers	
27 Feb	W	16	3: George Perkins Marsh: Prophet of Conservation	
1 Mar	F	17	3: Gifford Pinchot, Theodore Roosevelt and forest conservation	
4 Mar	M	18	3: Henry Graves, Raphael Zon, John Weeks, and Joseph Cannon	
6 Mar	W	19	3: Franklin Delano Roosevelt and the Civilian Conservation Corps	
8 Mar	F	20	3: <i>Green Fire: Aldo Leopold and a Land Ethic for Our Time</i>	
-	-	-	<i>9-17 March – Spring Recess</i>	
18 Mar	M	21	3: Sigurd Olson and the Voyageurs (Boundary Waters Canoe Area)	
20 Mar	W	22	3: <i>Taking Root: The Vision of Wangari Maathai</i>	
22 Mar	F	23	Review Session for Exam 1 ...see Study Guide on Moodle	
25 Mar	M	24	Exam 1 – Sections 1, 2 and 3	
27 Mar	W	25	4: The growth and development of trees and forests	
29 Mar	F	26	4: Forests, water, nutrients, and carbon	
1 Apr	M	27	4: Silviculture ...the art and the science of guiding forest change	
3 Apr	W	28	4: Managing forests to restore or enhance wildlife habitat	
5 Apr	F	29	4: Forest Ecosystems and Wildfire	
8 Apr	M	30	4: Fish grow on trees—How forests protect aquatic ecosystems	
10 Apr	W	31	4: Forests, Water, Biodiversity, People ...and Climate Change	
12 Apr	F	32	5: Ecomadera (Ecuador) Forest Conservation Project (Peter Pinchot)	
15 Apr	M	-	<i>Patriots Day</i>	
17 Apr	W	33	5: The Man Who Planted Chestnut Trees ...and then some	
19 Apr	F	34	5: Urban and community forestry (Rick Harper)	
22 Apr	M	35	5: Family Forests of New England (Paul Catanzaro)	
24 Apr	W	36	5: SFM Principles and Practices ... Assignment 5 Workshop	
26 Apr	F	37	5: Watershed Protection Forest Management – NY and Boston	
29 Apr	M	38	5: Learning with the Cree people of <i>Eeyou Istchee</i> (Quebec)	
1 May	W	39	5: Trees, Forests, and People for a Better World ... Assign. 5 Reprise	
Available 3 May			Exam 2 (Take Home/Short Essay format ...on Sections 4 and 5)	
			Due 5/8	

Learning and Performance Evaluation

Component	% of course grade	Due Date
Assignment 1	10	February 8
Assignment 2	15	February 22
Assignment 3	10	March 22
Exam 1	20	March 24
Assignment 4	15	April 17
Assignment 5	10	May 1
Exam 2	20	May 8
<i>*If your course grade, based upon Exam 1 and Assignments 1 through 5 is greater than 92.4, you will earn an exemption from Exam 2. We will tell you if it is mathematically possible after grading Assignment 4.</i>		

Assignments are due by midnight on the assigned dates. Late assignments will not be accepted for full credit unless you have a documented excused absence* ...otherwise there is a 20% deduction.

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."*

Turnitin (on Moodle) has a very sophisticated algorithm to alert me and the TA to potential plagiarism. It compares your assignment to all other submissions AND does a comprehensive web search. So, if you and your friend turn in the same or very similar assignments, that will be flagged. If you copy and paste material from web sites or other electronic sources (e.g., those "homework" websites), that will be flagged as well. After discussing the assignment or exam with you, the net result of an unconvincing explanation will be a zero (0) for the assignment (or Exam 2) or an F for the course (see above).

***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 from class (e.g., illness, family emergency, religious observance, or UMass team sport). 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 during the first week of the semester to discuss how we can best work together.