# BIOL 4866 - Forest Ecology

## Fall 2026 Syllabus, Section 01, CRN 41355,

Credit hours: 4

## Instructor

**Thomas Diggins**

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## Public Instructor Information

Instructor Title: Professor
Instructor Professional Qualifications: Ph.D., Biology, SUNY at Buffalo, 1997. 29 peer-reviewed publications, including 10 in forest ecology.
Instructor Office Location: 4037 Ward Beecher Hall
Instructor Office Phone: x3600

## Course Description

4866. Forest Ecology. A study of the structure, function, and management/conservation of forest ecosystems, including the biology and taxonomy of woody plants. Major emphasis on eastern North America. Prereq.: 20 s.h. BIOL or GES, or combination thereof, or PI. Coreq.: BIOL 4866L. 4 s.h.

## Course Readings

| Group | Title | Author | ISBN |
|---|---|---|---|
| | No readings | | |

1) NO textbook (haven't found an ideal combination of material coverage and reasonable price).

2) Some primary literature articles will likely be distributed during the semester.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

## Schedule of Topics and Assignments

| Week of | Proposed Topic | Due/To Prepare for Class |
|---|---|---|
| 8/24 | Intro/recap of plant biology | |
| 8/31 | Evolution of woody vegetation (conifers and angiosperms) | |
| 9/7 | Conifers – boreal biomes and ecotypes | |
| 9/14 | Conifers, especially pines – temperate ecotypes | |
| 9/21 | Eastern Deciduous Biome, northern hardwood ecotypes and species: maple, beech, etc. | |
| 9/28 | Eastern Deciduous Biome, central hardwood ecotypes and species: oak, hickory, etc.<br>Mesophytic forests - high diversity and equity of species | |
| 10/5 | Riparian ecotypes and species, i.e. communities of riverfront trees (CRT): willow, poplar, bald cypress, etc. | Midterm exam |
| 10/12 | Woodlands, barrens, krumholtz (cool word eh?), etc. | Field practical #1 (rescheduled on inclement weather) |
| 10/19 | Forest structure and architecture | |
| 10/26 | Disturbance: fire, wind/gap, pathogens, invasives, herbivory, i.e. deer effects and impacts (DEI) | |
| 11/2 | Successional patterns and processes | |
| 11/9 | Riparian forest dynamics (case studies) | |
| 11/16 | Timber resources and wood products | |

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|---|---|---|
| 11/23 | A brief introduction to silviculture and timber management | |
| 11/30 | Management, conservation, future perspectives | Field practical #2 (rescheduled on inclement weather) |
| 12/7 | | Final Exam |

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.