NON-GENERAL EDUCATION PROCESS A

*DEADLINES: Deadline dates for 2001/2002 submissions: Regular proposals: October 19, 2001 to be implemented in Fall 2002; Short-Term proposals: December 7, 2001 to be implemented in Fall, 2002; Regular proposals February 15, 2002 to be implemented in Spring, 2003; March 22, 2002 for short-term courses to be implemented in Spring 2003.

PROPOSAL TITLE: Flora of New Jersey

SPONSOR(S): Terry O'Brien, ex. 3587

DEPARTMENT: Biological Sciences

COLLEGE: Liberal Arts and Sciences

IF LAS CHECK ONE: ___ History/Humanities  √ Math/Sciences  ___ Social/Behavioral Sciences

Check one: √ Undergraduate  ___ Graduate

THE ATTACHED NON-GEN-ED PROPOSAL IS BEST DESCRIBED BY THE ITEM(S) CHECKED.

√ New non-gen-ed course

___ Short-term non-gen-ed course

___ Minor curricular changes (fewer than three) to:

  ___ existing non-gen-ed course

  ___ non-gen-ed degree requirements

  ___ major

  ___ minor, specialization, concentration, track, certificate program

DEPARTMENT
(Signature indicates approval)

Dept. Curriculum Chair / Date

Dept. Chairperson / Date

ACADEMIC DEAN

Approved  √ Not Approved  ___ Comments:

Dean's Signature/Date
COLLEGE CURRICULUM COMMITTEE

Date of open hearing (if necessary) 12/15/01  Approved √ Not Approved _____
Comments: ____________________________

Signature of College Chair/Date: 7/22/00  1/17/02

UNIVERSITY CURRICULUM COMMITTEE

Date Received/Processed ____________________________
Comments: ____________________________
Curriculum Chair Signature 1/22/02 Date Announced At Senate 1/29/02

EXECUTIVE VICE PRESIDENT/PROVOST

Approved √ Not Approved _____ If no, reasons are as follows: ____________________________
Student Credit Hours ______ Faculty Load Hours ______ Equalized Credit Hours ______
Official Copy & Approval Sheet Filed (Date): ____________________________
Executive VP/Provost Signature/Date 2/27/02

REGISTRAR

Date Approved Course Description Received ____________________________ Hegis Taxonomy & Course Number Assigned (0000) 01 03 04 05
Registrar Signature/Date 1/22/02

NOTIFICATION FORWARD

- Senate Curriculum Committee Chairperson - Academic Dean(s)
- Department Chairpersons - Registrar - Sponsor(s)
Flora of New Jersey

1. DETAILS

1a. Course Title: Flora of New Jersey

1b. Sponsors: Department of Biological Sciences
       Dr. Terry O’Brien, Assistant Professor

1c. Credit Hours: 4 s.h.

1d. Course Level: Undergraduate (300-level HEGIS level requested)

1e. Curricular Effect: This laboratory course will be an elective for Biological Sciences majors, to be included in the Botany Curricular Bank.

1f. Prerequisites: Biology I and II or course equivalents, or permission of the instructor.

1g. Suggested Time Scale of Implementation: Summer 2002 or Summer 2003 (depending on the time to approval for this proposal). It will be offered in alternate summers or each year depending on enrollment. This course will not be offered in fall or spring semesters because the best annual time to observe the flora is from May to August.

1h. Adequacy of Present Staff and Department Facilities

This course would be offered only during summer terms, so it will not create a staffing shortage during the Fall and Spring semesters. The department hired Dr. O’Brien in part to teach and develop courses in botany. This course fits Dr. O’Brien’s expertise within the field of botany.

The facilities in the Department of Biological Sciences are adequate for this course. Supplies and travel costs for the course are not expected to exceed $1000 per class.
1i. The library facilities are adequate, and were considerably enhanced with new acquisitions in 2000-2001. Several useful resources are available free of charge on the World Wide Web.

1j. Short-Term Evaluation:

The Department Curricular Committee routinely evaluates all courses to confirm that they meet the standards of the Department, the College of Liberal Arts and Sciences, and the University.

2. RATIONALE

The study of the diversity of plants in the landscape is well justified within a curriculum in biology. Plants dominate the terrestrial landscape across the globe. They also provide many ecosystem services critical to sustaining global biodiversity, economy and climate. A clear understanding of the regional and global environment depends upon one’s understanding of the patterns and processes of plant diversity.

This course will fill a void in the curriculum, as there is no course currently offered that considers terrestrial plant diversity from a regional perspective and with such a strong emphasis on field investigations. The department curriculum currently offers several upper-level courses for majors that are related to this course --- Ecology, Stream Ecology, Mycology, Limnology, Phycology and Plant Diversity. The content of Flora of New Jersey is complementary to these courses, yet does not substantially overlap with them.

3. ESSENCE OF THE COURSE

3a. Objectives

The central objective of this course will be to investigate the composition of the terrestrial flora of the region, its origin, and mechanisms that sustain it. As such, the course is primarily concerned with plant taxonomy, population ecology and community ecology. Secondary goals of this course include the investigation of the definitive features of plants and the interaction between humans and natural vegetation. Students who complete this course will be able to identify plant species and plant communities, and make reasonable predictions about the responses of plants to anthropogenic and nonanthropogenic (“natural”) influences.
3b. Course Outline

A majority of the following topics will be included in the course. The topics selected from this list will vary from year to year, tailored to meet the interests of the students. Topics marked with an asterisk are expected to be included each year the course is taught.

History of Discovery of the Flora
Essentials of Plant Structure and Development*
Major Lineages of Plants*
Plant Demography*
Essential Processes of Plant Evolution
Collection and Curation of Plants*
Identification of Plants*
Formation and Delimitation of Plant Communities*
Common Plant Communities of New Jersey*
Paleoclimates of Eastern North America and the Geographic Origins of the Modern Flora
Influence of Climate, Geology and Hydrology on the Flora*
Conservation Status of the Flora*
Human Impact on the Flora*

3c. Evaluation and Grading of Students

Students will be evaluated on the basis of written exams, field exams, individual and group projects and class participation. Students will have an opportunity to tailor individual projects to suit their specific interests. This is not a writing-intensive course because much of the course focus is on plant identification and field experiences, and because of the short duration of summer sessions.

3d. Course Evaluation

The Department Curricular Committee routinely evaluates all courses to confirm that they meet the standards of the Department, the College of Liberal Arts and Sciences, and the University.
4. RESULTS OF CONSULTATION

All faculty members of the department have reviewed this proposal, and unanimously approve. Members of the department have encouraged Dr. O’Brien to develop new courses, specifically any with a botanical theme and which include an environmental focus. This course suits both goals.

This course does not appear to be similar to any existing course offered by the department or other departments within the university. The faculty sponsor of this proposal appears to be the only faculty member on campus with expertise relevant to this course.

5. TEXTBOOK

No single textbook is available that covers the scope of topics in this course. Therefore, the following book is suggested, supplemented by a course reader and reserved books:


Examples of literature that could be used as reserve material are:

6. CATALOG DESCRIPTION

(04xx.3xx) 4 s.h.
Flora of New Jersey
(Prerequisites: 0401.100 and 0401.101, or the equivalent, or permission of the instructor.)

This laboratory course is an exploration of the local flora in terrestrial communities, from the shore to the Pine Barrens. The emphases of this course are plant communities and the identification of plants. It also provides an overview of plant conservation and the features of plants that determine their population dynamics. The focus of the laboratories is several all-day field trips. Offered during summer sessions.