

W
**ROWAN COLLEGE
 CURRICULUM COMMITTEE**

PROPOSAL TITLE: Principals of Ecology 6420-4-01

1 UNDERGRADUATE GRADUATE 1 CREDIT HOURS

SPONSOR(S): Patricia Houch

DEPARTMENT & TELEPHONE# Biological Sciences 2319

CHECK ONE: COURSE MINOR PROGRAM CONCENTRATION SPECIALIZATION
 ACHIEVEMENT CERTIFICATE CERTIFICATION PROGRAM MAJOR PROGRAM

<p style="text-align: center;">STEP #1 (DEPARTMENT)</p> <p><input checked="" type="checkbox"/> APPROVED/DATE: <u>10/19/95</u></p> <p><input type="checkbox"/> NOT APPROVED/DATE: <u>N/A</u></p> <p style="text-align: center;">DEPT. CURRICULUM CHR.</p> <hr/> <p>REVIEWED/DATE:</p> <p style="text-align: center;"><u>J. Moore</u> DEPT. CHR.</p>	<p style="text-align: center;">STEP #2 (RECEIPT)</p> <p>SCC# <u>95-96-58</u></p> <p>DATE RECEIVED:</p> <p style="text-align: center; font-size: 2em;">1 SENATE</p> <p style="text-align: center; font-size: 1.5em;">RECEIVED <u>Ronald G. Fisher</u> SENATE CURRICULUM CHR.</p>	<p style="text-align: center;">STEP #3 (SCHOOL)</p> <p>REVIEWED DATE: <u>11/3/96</u></p> <p><input checked="" type="checkbox"/> RECOMMEND TO APPROVE</p> <p><input type="checkbox"/> RECOMMEND NOT TO APPROVE</p> <p style="text-align: center;">FORWARD FOR OPEN HEARING</p> <p><input type="checkbox"/> WITHOUT RESERVATIONS</p> <p><input type="checkbox"/> WITH RESERVATIONS</p> <p>COMMENTS:</p> <p style="text-align: center;"><u>King</u> SCHOOL COMMITTEE CHR.</p>
---	--	---

<p>STEP #4 (ACADEMIC DEAN)</p> <p><input checked="" type="checkbox"/> RECOMMEND</p> <p><input type="checkbox"/> NOT RECOMMEND</p> <p><input type="checkbox"/> CONDITIONALLY RECOMMEND (SEE COMMENTS)</p> <p>DATE & SIGNATURE, DEAN OF SCHOOL</p>	<p>COMMENTS:</p> <p style="font-size: 1.5em; text-align: center;"><u>R. W. Parrott 4/3/96</u></p>
--	---

<p>STEP #5 (SENATE CURRICULUM COMMITTEE)</p> <p>DATE OF OPEN HEARING <u>12-10-96</u></p> <p>APPROVED BY SENATE CURRICULUM COMMITTEE (DATE) <u>12/1/96</u></p> <p><input type="checkbox"/> RETURNED TO SPONSOR(S) FOR THE FOLLOWING REASONS:</p> <p>_____</p> <p>_____</p>
--

<p>(SENATE)</p> <p>DATE PRESENTED TO SENATE <u>12/1/96</u> <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> NOT APPROVED</p> <p>NOTIFICATION TO EXECUTIVE VICE PRESIDENT/PROVOST (DATE) _____</p> <p>SENATE CURRICULUM COMMITTEE CHAIR SIGNATURE/DATE <u>Ronald G. Fisher 12/1/96</u></p>

STEP #7 (EXECUTIVE VICE PRESIDENT/PROVOST)

DATE RECEIVED _____

APPROVED: ___ YES ___ NO

IF NO, REASONS ARE AS FOLLOWS:

STUDENT CREDIT HOURS _____

FACULTY LOAD HOURS _____

EQUALIZED CREDIT HOURS _____

OFFICIAL COPY & APPROVAL SHEET FILED (DATE) 1/31/97

SIGNATURE, EXECUTIVE VICE PRESIDENT/PROVOST [Signature]

REGISTRAR

DATE APPROVED COURSE DESCRIPTION RECEIVED 14 Feb, 97

HEGIS TAXONOMY AND COURSE NUMBER ASSIGNED 04200401

DATE/SIGNATURE OF REGISTRAR [Signature]

NOTIFICATION FORWARD:

___ SENATE CURRICULUM COMMITTEE CHAIRPERSON

___ DEPARTMENT CHAIRPERSON(S)

___ ACADEMIC DEAN(S)

___ REGISTRAR

___ SPONSOR(S)

NEW COURSE PROPOSAL

1. Details:

- a. Course title: Principles of Ecology
- b. Sponsor: Department of Biological Sciences
Dr. P. Mosto, Assistant Professor
- c. Credit Hours: 4 s.h. (2 lectures and 1 laboratory weekly)
- d. Course level: Undergraduate - HEGIS # 400 Level
- e. Curricular Effect: This course will be a required upper-level science course for students in the Liberal Studies Science and Math Program.
- f. Prerequisites: Biology I or Essentials of Biology, Chemistry for Everyday Life, Statistics and Patterns of Nature II.
- g. Suggested Time and Scale of Implementation: Effective Fall 2000. Initially, this course will be offered once a year; it may be offered more frequently if demand requires it.
- h. Adequacy of Resources: It is anticipated that the new Liberal Studies Track will have approximately 20-30 majors each year initially, and one section annually should be adequate. Present faculty in the Biology Department is overloaded, so a new line for this program is required.

2. Rationale:

This course will provide students in the Liberal Studies Science and Math Track with an understanding of main ecological principles. The current trend in teacher's education is to strength the Environmental/Ecological related fields. In an effort to provide the students in this track with new opportunities in the Environmental/Ecological field this course is proposed.

3. Essence of the Course:

a. Objectives:

The Principles of Ecology course is to serve Liberal Studies Science and Math Major students with an ecological understanding of the environment, the relationships and interactions between organisms in populations, and the structure of communities. It will also provide our majors with applied tools in ecology.

b. Topical Outline/Content

Books available

Ricklefs, R. 1997. The economy of Nature. W.H. Freeman Co.
Smith, R. 1995. Elements of Ecology. Harper Collins Pub.

Syllabus

- Historical perspectives in ecology
- The physical environment
- Air, Soil, Water
- Organismal response to the environment
- Life histories
- Population structure, growth and regulation
- Population genetics and evolution
- Species interaction
- Community structure and development
- Biodiversity
- Energy flow in the ecosystem
- Nutrient cycling
- Regulation of ecosystems
- Ecological applications

c. Evaluation and Grading Procedure of Students

Exams, Laboratory reports, and Field work will be part of the grading system.

d. Course evaluation:

The course will be evaluated on a regular basis as one of the offerings of the Biological Science Department. The Department routinely reviews their courses to assess their success in meeting the goals and objectives of the College and the Programs.

4. Results of Consultation

5. Catalog Description

0XXX.4XX. Principles of Ecology (Prerequisites: Biology I or Essentials of Biology, Chemistry for everyday Life, Statistics I and Patterns of Nature II).

This course covers basic topics related to the ecological understanding of the environment from a point of view of population dynamics and community structure as well as individual organism's ecology. It include case studies of applied ecology.