University Studies
Cluster Proposal Cover Sheet

Cluster: ENVIRONMENTAL SUSTAINABILITY

Title of course: Special Topics: Sustainable Forestry Monitoring

Course Number: SCI 349

Proposing Faculty: NAOMI DRESCHER

Cluster Coordinator: JOE MEGER

Cluster Course to New Cluster

New Course to Cluster

Removal

Other clusters this course is assigned to:____________________

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University Studies
Cluster Course Addition
Adding a previously unapproved course to a cluster

PROPOSING FACULTY: Dr. Marion Dresner, Center for Science Education

Signed: Marion Dresner

1. THE COURSE

A. COURSE TITLE, NUMBER, AND CATALOG DESCRIPTION

SCI 399U: Special topics: Sustainable Forestry Monitoring

Students will discuss regional, national, and international needs and recognized standards for managing forests sustainably, learn specific processes for monitoring, and work with local organizations at an actively managed site to monitor for specific native forest health criteria.

B. DEVELOPMENT

This is a new course under development.

C. AVAILABILITY

The course will be offered annually in the fall term

D. PREREQUISITES

Natural Science Inquiry courses or Environmental Sustainability

2. COURSE OUTLINE.

Week 1- Concepts of sustainable forestry: The notion of sustainable ecosystem management dates back to the 1980s when a call for ecosystem management lead to a shift in thinking about forest management. Sustainable forestry is a broader term that includes all aspects of the forest ecosystem and its management, conveying a resistance and resilience of all components of the forest system, which allows it to continually function within its natural range of variability. Discussion of social and economic aspects. Certification of sustainability: covering the range of certification standards.

Week 2- Basics of environmental sampling and monitoring: students will learn how to establish study sites and sample plots. They will also introduced to basic concepts of scientific inquiry such as sampling and replication.

Week 3- Training in specific forest protocols: Students will conduct a field investigation to learn to identify different species of forest trees and herbaceous vegetation. They will also learn about the ecological function of forest structure as habitat in sustainable forestry.

Week 4- Mid-term exam

Weeks 5-9- Team works on Sustainable Forest site; Students will try to determine if conditions at their site comply with established criteria for sustainability.

Week 10- Final presentation of results

Preliminary sources for a course reader:
Instructor committed to teaching the course: Marion Dresner
Community Partners; Eco-Trust, Individual Tree Selection Company

3. GENERAL EDUCATION GOALS.

A. COURSE CONTENT & SUITABILITY FOR CLUSTER
   SLA cluster: active scientific inquiry, problem-posing, problem solving, and persuasion. This class will provide a unique opportunity to learn about the principles of sustainable forestry through investigative, hands-on approaches in real-world situations. Procedures used will enable students to investigate the forest system to learn about its structure, the complexity of interactions among its components, and the unique approach offered to its management through sustainable forestry.

   Environmental Sustainability Cluster: Sustainable forestry is not only concerned with the growth of trees, but it also tries to addresses other biological, social, economic and political variables that are integral to forest management issues. Through this class, students will investigate the structural attributes of entire forest stands and visualize how different forest habitats spatially relate to each other in the landscape. Students will evaluate a managed forest according to criteria as to how it fits the definition of sustainability.

B. The following UNST goals will be met through this course, as described above:
   Inquiry and Critical Thinking
   Ethical Issues & Social Responsibility

C. CLASSROOM ENVIRONMENT
   Specific teaching strategies will include student choice during the second half of the term for a team focus for active investigation, including plant diversity, forest structure, soil quality, water and riparian area quality, and landscape-level forest patch assessment. Working in small teams, students will conduct their investigation, analyze their results, and report their findings to the site landowners.
PROPOSING FACULTY: Dr. Marion Dresner

COURSE TITLE AND NUMBER: SCI 399U: Special topics: Sustainable Forestry Monitoring

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OBTAIN CHAIR AND CLUSTER COORDINATOR SIGNATURES BEFORE SUBMITTING TO UNIVERSITY STUDIES OFFICE

DEPARTMENT CHAIR(S): [Signature] DATE: 11/13/02

CLUSTER COORDINATOR: [Signature] DATE: 11/10/02

CLUSTER COORDINATOR: [Signature] DATE: 11/12/02

All changes to Clusters must be approved by PSU's Senate Curriculum Committee.

THE ORIGINAL + 12 COPIES OF THE PROPOSAL MUST BE RECEIVED AT UNIVERSITY STUDIES (CH 163)

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COURSE APPROVED FOR CLUSTER INCLUSION

CHAIR, CLUSTER COORDINATORS: ____________________________. DATE: ______________.

CHAIR, UNST COMMITTEE: ____________________________ DATE: ____________