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# The University of Georgia

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**Daniel B. Warnell School of Forestry and Natural Resources**

Forestry, Fisheries and Wildlife, Water and Soil Resources

Natural Resources Recreation and Tourism

*Office of the Dean*

February 2, 2015

Dr. William Vencill, Chairman  
University Curriculum Committee  
University of Georgia  
Campus Mail

RE: Proposed University Experiential Learning Requirement

Dear Bill,

The faculty of the Warnell School of Forestry and Natural Resources expressed their enthusiastic support for this proposed requirement at our monthly faculty meeting on January 30, 2015.

Please feel free to use this letter from me as Interim Dean on their behalf to indicate the support of the Warnell School of Forestry and Natural Resources for this proposed requirement as this matter is considered for approval by the University Council.

If I may be of further assistance, please do not hesitate to contact me.

Sincerely,

W. Dale Greene  
Interim Dean and Professor



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## **Daniel B. Warnell School of Forestry and Natural Resources**

Forestry, Fisheries and Wildlife, Water and Soil Resources

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### **Experiential Learning Requirement**

#### **Draft Implementation Plan**

#### **Warnell School of Forestry and Natural Resources**

The University of Georgia requires all undergraduates to engage in a hands-on experiential learning experience within a domestic or global setting that fosters engagement with real-world problems and challenges, enhances critical thinking and problem solving skills, and equips students with the confidence and experience to think entrepreneurially and creatively about their impact in the world.

This learning process should be facilitated by first-hand experiences outside of traditional classroom structures, and involve experience, reflective observation, abstract conceptualization, and active experimentation.

#### I. Required Experiential Learning Courses

In order to meet the spirit and scope of the Experiential Learning Requirement (ELR), each student graduating from the Warnell School of Forestry and Natural Resources must successfully complete at least 3 credit hours from one of the following two courses. The designated ELR officer within the Warnell School of Forestry and Natural Resources is the Associate Dean of Academic Affairs, and they will assess each student's successful completion of the ELR.

#### **FANR 4500** (capstone project)

Senior Project in Forestry and Natural Resources Management

*Course Description:* This course is an autonomous learning experience that requires to students apply information presented in prior courses to real-world problems of their selection. Students work in groups of 2 or 3 individuals representing at least two distinct majors within the Warnell School of Forestry and Natural Resources (e.g., Fisheries and Wildlife, Forestry, Soil and Water Resources, Natural Resource Recreation and Tourism). Groups are advised during the process by two faculty Senior Project Advisors as well as additional faculty identified by students to represent needed expertise. Students identify a real-world client, and then use their training to frame a client's problem or interests into achievable management objectives and to develop alternative means of achieving these objectives (i.e., means for solving the problem). Students identify, collect and analyze information necessary for evaluating alternatives. This information may arise from field data, previous studies, library sources, personal communications, etc. Students summarize results and make recommendations to the client based on the best combination of biological, financial, legal, social and ethical considerations. Students produce an informative report for their client, which is evaluated by the Senior Project Advisors. The preparation of this report requires critique, reflection, and substantial revision. In addition, students present their report including a statement of the problem and objectives, their analyses and recommendations to peers, professors and clients at a symposium held each semester. Students are also required to attend the presentations of six Senior Project or Senior Thesis presentations by peers.

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*Learning Outcomes:* This course meets the spirit and required structure and elements of the ELR Learning Outcomes by having students hone their understanding, professional behavior, sense of responsibility, and autonomous learning and work skills. Specifically, students will have implemented, reflected, and articulated the application of their academic foundation to a real-world challenge.

### **FANR 4600 (capstone thesis)**

#### Senior Thesis in Forestry and Natural Resources

This course is an autonomous learning experience that requires students to apply information presented in prior courses to engage in systematic, in-depth inquiry into a problem within their field. Students work independently with a faculty Senior Thesis Research Advisor to identify a question, compose a committee of relevant experts (faculty or Ph.D. candidates), and design a study, and write a *Senior Thesis Research Proposal* for submission and approval by the ELR Officer. As part of the development of their research project, students will consider the biological, legal, ethical, and management implications of their work including applications for research permits and approved protocols (e.g., *Animal Use Protocols* or *Internal Review Board (IRB) Protocols* for human subjects). Once approved, students will execute their research including collecting and analyzing data and then write a Senior Thesis in a professional format appropriate for their discipline. The preparation of the thesis requires critique, reflection, and substantial revision. The student's Senior Thesis Research Advisor and committee will evaluate the thesis. In addition, the student will present their research at a professional venue which can include the Senior Project and Senior Thesis symposium offered each semester by the Warnell School of Forestry and Natural Resources, the Center for Undergraduate Research (CURO) Symposium, or a local, regional, or national professional meeting. Students are also required to attend the presentations of six Senior Project or Senior Thesis presentations by peers.

*Learning Outcomes:* This course meets the spirit and required structure and elements of the ELR Learning Outcomes by having students hone their understanding, professional behavior, sense of responsibility, and autonomous learning and work skills. Specifically, students will have implemented, reflected, and articulated the application of their academic foundation through independent inquiry and the development and interpretation of knowledge within their field.

## II. Additional Experiential Learning Opportunities

Additional ELR suitable courses are available from the following list of elective courses that are currently structured and coordinated with the Warnell curriculum, and are developed in a way that hones a student's understanding, attitude, behavior, confidence, and sense of responsibility. Further, they challenge students to engage reflectively in meaningful, active, and applied contexts, and include a feedback mechanism to assess implementation success

### Study Abroad

#### **FANR 4201-4201L and FANR 4202-4202D (study abroad)**

#### **Spatial Analysis for Integrative Natural Resource Problem-Solving & People, Economics, and Nature in a Global Context**

Through an immersive study abroad experience, these two complementary courses afford students the opportunity to learn how people make decisions concerning natural resource issues in Costa Rica. Through FANR 4202, students consider the roles and alternative perspectives of individuals and organizations in managing forests, wildlife, fisheries, land and water in Costa Rica with comparisons to

the United States and other countries. Students also apply social science theories and economic principles to natural resource management. Through FANR 4201, students use geographic information systems (GIS) and related technologies (GPS, aerial photography) to study alternative solutions to the sustainable management of natural resources in Costa Rica. Students apply these technologies and use data to address real-world questions of natural resources management (e.g, "How do animals use shade-grown v. full-sun coffee farms?").

### **FANR(ANTH)(ECOL)(GEOG)(INTL)(RLST) 4271 (study abroad)**

#### **Sustaining Human Societies and the Natural Environment**

Through an immersive study abroad experience, this course, in conjunction with a suite of complementary courses, afford students the opportunity to develop an appreciation of the cultural, social, economic, and ecological issues related to national and global sustainability. Through the use of highly interactive, location- based case studies in multiple South Pacific Countries (e.g., New Zealand, Australia, Fiji, and Bali) that include interactions with entities representing various in country interpreters and stakeholders, students develop an appreciation for the various perspectives associated with problems and solutions to sustainability. Students use frequent short essays and a capstone digital story to integrate the different perspectives with specific instruction on the diverse natural and social sciences that form the foundations of our understanding of sustainability. Students are also afforded opportunities to reflect and revise on written assignments. The course is currently offered in companion with other specialized electives focusing on a diversity of topics including Ecology, Animal behavior, Economics, International Affairs, and Public Health.

### **FORS 4250 (study abroad)**

#### **International Forest Management**

Study-abroad to examine issues pertaining to the management of forested landscapes in the visited country. Introductory lectures on the natural and cultural history of the visited country will be followed by extended field examination of the country's forest resources and their management. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

### **FORS 4760 (study abroad)**

#### **Agroforestry in the Caribbean**

Exploration of the use of trees in subtropical and tropical agriculture systems. Study of design components and agroforestry practices of Caribbean production systems with consideration of social, economic, and environmental variables. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

### **WILD 4575 (study abroad)**

#### **Conservation Medicine**

Conservation medicine is a multidisciplinary emerging field that is concerned with the interface between human health, animal health (both wild and domestic) and ecosystem health. This provides students from various backgrounds with the opportunity to learn/practice the principles of conservation biology/medicine using the ecology and fauna of Costa Rica.

**WILD 5200 (study abroad)****International Issues in Wildlife Conservation**

An overseas, field-based course that explores wildlife conservation and management topics and issues in the host country. Includes lectures and field projects related to sustainable use of wildlife and human conflicts with wildlife.

**Internships and Service Learning****ANTH(BIOL)(ECOL)(EETH)(ENTO)(FANR)(GEOL)(PATH)(PBIO) 4261****Museum of Natural History Internship**

Supervised work experience with a natural history collection. Students will learn techniques and other procedures for curating materials in a collection of their choice under the direction of collection personnel. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

**FANR 4273S (service-learning)****Field Studies in Sustainable Development**

Field studies to explore issues of sustainable development in predominantly urban (but also including rural and wildland interface) areas. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

**FANR 4444S (service-learning)****Foundations of Environmental Education**

Foundational knowledge and applied service-learning experiences in the field of environmental education, including goals, theory, practice and history of environmental education and the competencies necessary to be a well-prepared environmental educator. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

**FISH 3900 (internship)****Fisheries Internship**

Students will work with a business, government agency, or other organization to gain professional experience related to aquatic sciences. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

**FORS 3900 (internship)****Forestry Internship**

Students will work with a business, government agency, or other organization to gain professional experience related to the Forestry major. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

**NRRT 3900 (internship)****Natural Resources Recreation and Tourism Internship**

Students will work with a business, government agency, or other organization to gain professional experience related to the Natural Resources Recreation and Tourism major. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

**WASR 3900 (internship)****Water and Soil Resources Internship**

Students will work with a business, government agency, or other organization to gain professional experience related to the Water and Soil Resources major. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.

**WILD 3900 (internship)****Wildlife Internship**

Students will work with a business, government agency, or other organization to gain professional experience related to the Wildlife Sciences or Pre-Vet Wildlife Sciences areas of emphasis within the Fisheries and Wildlife major. Students receiving ELR credit for this course must, through a reflective essay, detail their specific experiences and demonstrate how those experiences led to a personal professional goal and the student's understanding of how to succeed professionally within this field.