

SCHOOL OF FORESTRY  
NORTHERN ARIZONA UNIVERSITY

**Global Learning Initiative Implementation Plan  
School of Forestry**

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Approved by School of Forestry Faculty  
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## Introduction

In Spring 2010, Northern Arizona University adopted a “Global Learning” initiative that required all academic units on campus to infuse global perspectives into their programs of study to contain explicit student learning outcomes (SLOs) related to the following three broad themes:

Global Education;  
Environmental Sustainability: and  
Diversity

To address the requirements of this initiative, a group of faculty (aka the Global Learning Committee—GLC) consisting of Yeon-Su Kim, Michael R. Wagner, and B.E. Fox, applied for and received a grant to create a DRAFT curricular plan for School of Forestry faculty consideration. This DRAFT plan would address the desired learning outcomes specified in the report of the University’s **Global Learning Subcommittee of the Task Force on Global Education**. This report is available at:

[http://international.nau.edu/about\\_cie/task\\_force.html](http://international.nau.edu/about_cie/task_force.html)

The first step of the GLC was to operationalize the University-level SLOs into ones specific and appropriate for forestry. We have included a DRAFT of these SLOs here as Appendix A. These SLOs represent those that we believe all undergraduate forestry students should obtain by the time they graduate. Therefore, they are applicable to the undergraduate core curriculum.

Second, we conducted a PRELIMINARY content analysis of all the syllabi for undergraduate forestry courses, including non-required ones. This content analysis provided an initial inventory of where in our curriculum students have the opportunity to obtain material that pertain to the general themes listed above. We looked at both specific SLOs identified in each syllabus as well as subject matter identified in the course. We then aggregated this course-based inventory into an overall “map” of where our students receive instruction in these thematic areas (Appendix B). This analysis did not attempt to map our curriculum to the specific draft SLOs in Appendix A. This effort followed the same structure as used previously in the School, e.g. the School’s IT (Appendix C) and Writing Across the Curriculum efforts.

## Phase I

At this point, the GLC is asking for faculty assistance in completing this initial phase (Phase I) of curricular planning related to the themes. Specifically, we ask for the faculty to complete the tasks laid out in Table 1.

Table 1. Phase I curricular alignment process tasks

Task	Description
Review DRAFT SLOs	Review DRAFT SLOs and identify additions, deletions, and corrections
Submit review comments to Bruce Fox	By September 15, 2010??
Comments compiled by GLC and distributed to faculty* for discussion	
Faculty discussion of proposed SLOs Approval of SLOs.	By October 1, 2010?????
Review current syllabi	Analyze current syllabi to determine the accuracy of the preliminary content analysis. Send additions, deletions, corrections to Bruce Fox October 15, 2010
Revised curricular map	GLC will revise the preliminary curriculum map based on faculty comments
Estimated completion date:	January 2011

\*either to faculty directly or through Curriculum Committee, at the preference of the faculty

## Phase II

Phase II will be the potential revisions of course content, including SLOs, to align with the faculty-approved SLOs AS APPROPRIATE for a given course. The goal here is ensure that undergraduate forestry core curriculum includes course material that meets these SLOs.

Table 2. Phase II curricular alignment tasks

Task	Activity
POTENTIAL revision of course SLOs	Based on the review of course syllabi, consider revising/adding one or more faculty-approved SLOs AS APPROPRIATE. Please note that we do not expect all classes to address all SLOs or all thematic areas. Indeed, many classes may only have one or two SLOs and some may have none at all.  Even if course content does not lend itself to creating a specific SLO, consider how current course content might be augmented based on these SLO.  Send the revised syllabi to Bruce Fox, specifically identifying and new or revised SLOs and what course content applies to which SLO.

Creation of curricular map	Based on the information submitted by the faculty, the GLC will construct a curricular map the displays the match of current practices with desired SLOs. Again, this will follow the efforts of the School of Forestry IT across the curriculum effort.
Estimated completion date	Funding contingent

### Phase III

Phase III of the curricular alignment process will be to work with other units on campus, especially those offering pre-requisite course, to determine how these course offerings fit into the SOF desired curriculum with respect to the University's three themes of the Global Learning initiative.

## **Appendix A**

### **Student Learning Outcome Recommendations**

#### **From the SOF Global Learning Committee**

**University Thematic Student Learning Outcomes: Global Education:** Students will learn how to analyze, synthesize, and evaluate the interconnectedness and interdependence of the human experience on a global scale.

#### **Global Engagement**

Students will gain an appreciation of the interconnectedness and interdependence of the human experience on a global scale. This includes, for example, the following issues:

- a. the implications of race, racism and ethnocentrism for transnational, human, and societal interaction.
- b. the relationship among culture, language, community and environment.
- c. the role of ideology, spirituality, and religion in terms of human action and relationships.
- d. the interconnectedness between and among political, cultural, personal and economic decisions and the natural world.
- e. how economic, social, and technological practices and traditions impact climate and the environment.
- f. how historical, political, religious and economic forces have shaped the current world system and the source of global power inequalities and efforts to address them.
- g. the roles, possibilities and implications of diverse technologies on culture and the political economy.

#### **SOF Thematic Student Learning Outcomes: Global Education**

Forestry students will be able to compare and contrast the forest ecosystem characteristics, management strategies, and important policies related to forestry in the US and at least one international forest region. The following are specific desired learning outcomes:

1. Understand the ecological and biological characteristics of at least one forest ecosystem that is represented in a country other than the United States.
2. Understand the social and cultural context and importance of indigenous knowledge and the role of women in forestry in a country outside of the US.
3. Understand the implications of international policies on US forestry and US policy on forestry in other countries.
4. Recognize major international initiatives directed toward forest conservation such as forest certification, protected area management, watershed protection, international trade in endangered species, and valuation of environmental services.
5. Describe the curricular and extra-curricular opportunities available at NAU and within the field of forestry to obtain educational experiences and professional opportunities in international forestry
6. Demonstrate through service learning or extra-curricular activities a willingness to engage in activities in support of the above desired learning outcomes.

**University Thematic Student Learning Outcomes: Diversity:** Students will learn about and critically reflect upon the nature and consequences of diversity in both the social (e.g. ethnic, religious, cultural) world and the natural environment, and develop an

understanding of how this diversity both alters and is altered in a world characterized by increasing global interaction.

### **Diversity**

Students will appreciate the ubiquity and necessity of diversity in its many manifestations, including cultural, ethnic, religious, linguistic and biological diversity. This includes, for example, the following issues:

- a. the scope of racial and ethnic diversity both in the US and globally.
- b. in addition to race and ethnicity, gender, class, sexuality, religion, age, language and disability constitute key dimensions of diversity.
- c. how ubiquitous racial and ethnic diversity is and how it intersects with other forms of diversity, such as gender, class, sexuality, religion, age, language and disability.
- d. the relationship between diversity and survival on the planet.
- e. how the position we take on diversity can either strengthen human communities and sustain the natural environment, or lead to conflict and environmental degradation.
- f. the role of ethnocentrism and Eurocentrism in human and societal interaction.

### **SOF Thematic Student Learning Outcomes: Diversity**

By the end of their undergraduate forestry education, successful NAU School of Forestry undergraduates will have the skills and knowledge base to understand the role of human diversity in the management of forested landscapes. More specifically the students will have the skills and knowledge to fully and correctly:

1. Describe the concept of human diversity that recognizes ethnicity, race, gender, socio-economic status, sexuality, religion, age, language, and disability;
2. Explain, both orally and in written form, how human diversity affects the definition, use, and management of forested landscapes;
3. Describe how the European roots of the forestry profession, as well as traditional ecological knowledge, have influenced the management of forests both in the United States and internationally;
4. Identify and describe the range of available opportunities to acquire diversity-related educational experiences in forestry;
5. Describe the importance of diversity in forestry professional ethics; and
6. Demonstrate through service learning or extra-curricular activities a willingness to engage in activities in support of the above desired learning outcomes.

### **University Thematic Student Learning Outcomes: Environmental Sustainability:**

Students will acquire the skills and knowledge base to understand the importance of and options for environmental sustainability in local and global terms. Students will also acquire an understanding of the range of ethical perspectives concerning the uses of natural resources and the impact of these perspectives on creating a sustainable relationship to the natural environment.

#### **Environmental Sustainability**

Students will appreciate what it means to use natural resources in ethical and responsible ways that maintain a sustainable environment. This includes, for example, the following issues:

- a. how culture determines how we construct the appropriate use of environmental resources.
- b. the connection between responsible engagement with the environment and global citizenship.
- c. the scientific basis of environmental sustainability.
- d. the vocabulary and concepts around environmental sustainability (e.g., finite and renewable resources, environmental footprint, global commons, peak oil).
- e. the role of human interactions with the environment and its relation to the root causes of many global problems.

### **SOF Thematic Student Learning Outcomes: Environmental Sustainability**

By the time of graduation, forestry students will be able to demonstrate their understanding of three dimensions of environmental sustainability: ecological, social/cultural and economic. They should understand their role in promoting environmental sustainability as a consumer and citizen in local and global contexts and as managers and stewards of natural resources. The following are specific desired learning outcomes:

1. Understand the scientific base of environmental sustainability, and the limitations and advantages of the western perspectives on sustainable resource management;
2. Understand the dynamics among three dimensions of environmental sustainability; i.e. students will understand that policies and actions for environmental sustainability must be ecologically sustainable, socially/culturally acceptable and economically feasible to be effective;
3. Understand the vocabulary and concepts around environmental sustainability in and outside of the forestry profession;
4. Understand personal responsibility for global issues as a consumer and citizen for global issues and recognize how personal actions at the local level can impact global phenomena;
5. Describe the importance of environmental sustainability in forestry professional ethics; and
6. Demonstrate through service learning or extra-curricular activities a willingness to engage in activities in support of the above desired learning outcomes.

**Appendix B**  
**Curriculum Map: Global Education**  
**NAU School of Forestry**  
**Global Perspectives Literacy Goals for Undergraduate Students**

Global Education	Liberal Studies	FOR 101	FOR 211	FOR 212	FOR 213	FOR 215	FOR 220
1. Understand the ecological and biological characteristics of at least one forest ecosystem that is represented in a country other than the United States		E		E			
2. Understand the social and cultural context and importance of indigenous knowledge and the role of women in forestry in a country outside of the US.							
3. Understand the implications of international policies on US forestry and US policy on forestry in other countries							
4. Recognize major international initiatives directed toward forest conservation such as forest certification, protected area management, watershed protection, international trade in endangered species, and valuation of environmental services.							
5. Describe the curricular and extra-curricular opportunities available at NAU and within the field of forestry to obtain educational experiences and professional opportunities in international forestry							
6. Demonstrate through service learning or extra-curricular activities a willingness to engage in activities in support of the above desired learning outcomes.							

Global Education	Sem A	Sem B	Sem C	Sem D	FOR 360
1. Understand the ecological and biological differences of at least one forest ecosystem that is represented in a country outside of the southwestern ponderosa pine forests.					
2. Understand the social and cultural context and importance of indigenous knowledge and the role of women in forestry in a country outside of the US.					
3. Understand the implications of international policies on US forestry and US policy on forestry in other countries					
Recognize major international initiatives directed toward forest conservation such as forest certification, protected area management, watershed protection, international trade in endangered species, and valuation of environmental services.					
5. Describe the curricular and extra-curricular opportunities available in the SOF to obtain educational experiences and professional opportunities in international forestry					
6. Demonstrate through service learning or extra-curricular activities a willingness to engage in activities in support of the above desired learning outcomes.					



Diversity	Liberal Studies	FOR 101	FOR 211	FOR 212	FOR 213	FOR 215	FOR 220
1. Describe the concept of human diversity that recognizes ethnicity, race, gender, socio-economic status, sexuality, religion, age, language, and disability;							
2. Explain, both orally and in written form, how human diversity affects the definition, use, and management of forested landscapes;							
3. Describe how the European roots of the forestry profession have influenced the management of forests both in the United States and internationally;							
4. Identify and describe the range of available opportunities to acquire diversity-related educational experiences in forestry; and							
5. Describe the importance of diversity in forestry professional ethics.							

Diversity	Sem A	Sem B	Sem C	Sem D	FOR 360
1. Describe the concept of human diversity that recognizes ethnicity, race, gender, socio-economic status, sexuality, religion, age, language, and disability;					
2. Explain, both orally and in written form, how human diversity affects the definition, use, and management of forested landscapes;					
3. Describe how the European roots of the forestry profession, as well as traditional ecological knowledge, have influenced the management of forests both in the United States and internationally;					
4. Identify and describe the range of available opportunities to acquire diversity-related educational experiences in forestry; and					
5. Describe the importance of diversity in forestry professional ethics.					
6. Demonstrate through service learning or extra-curricular activities a willingness to engage in activities in support of the above desired learning outcomes.					

Environmental Sustainability	Liberal Studies	FOR 101	FOR 211	FOR 212	FOR 213	FOR 215	FOR 220
1. Understand the scientific base of environmental sustainability, and the limitations and advantages of the western perspectives on sustainable resource management;							
2. Understand the dynamics among three dimensions of environmental sustainability. In other words, students will understand that policies and actions for environmental sustainability must be ecologically sustainable, socially/culturally acceptable and economically feasible to be effective;							
3. Understand the vocabulary and concepts around environmental sustainability in and outside of forestry profession;							
4. Understand personal responsibility as a consumer and citizen for global issues and recognize how personal actions at the local level can impact global phenomena;							
5. Describe the importance of environmental sustainability in forestry professional ethics;							
6. Demonstrate through service learning or extra-curricular activities a willingness to engage in activities in support of the above desired learning outcomes.							

Environmental Sustainability	Sem A	Sem B	Sem C	Sem D	FOR 360
1. Understand the scientific base of environmental sustainability, and the limitations and advantages of the western perspectives on sustainable resource management;					
2. Understand the dynamics among three dimensions of environmental sustainability; i.e. students will understand that policies and actions for environmental sustainability must be ecologically sustainable, socially/culturally acceptable and economically feasible to be effective;					
3. Understand the vocabulary and concepts around environmental sustainability in and outside of the forestry profession;					
4. Understand personal responsibility for global issues as a consumer and citizen and recognize how personal actions at the local level can impact global phenomena;					
5. Describe the importance of environmental sustainability in forestry professional ethics;					
6. Demonstrate through service learning or extra-curricular activities a willingness to engage in activities in support of the above desired learning outcomes.					

**Notes:**

- Competence level of "E" indicates "Exposure" (Introduced to the topic) will be reached by the end of the course
- Competence level of "D" indicates "Describe" (Students will be able to describe the issues associated with the topic) will be reached by the end of the course
- Competence level of "A" indicates "Articulate" (Students will be able to articulate the causes of the problems and potential solutions associated with the topic) will be reached by the end of the course
- Competence level of "N/A" indicates that the topic will not be discussed at all in the course
- Competence level of "—" indicates that the topic will be discussed in the class and that the desired level has been reached in previous classes