UF UNIVERSITY of FLORIDA

New SLO/Academic Assessment Plan Submission Form

Check one:

- [x] New Certificate Academic Assessment Plan
- [ ] New Undergraduate Academic Assessment Plan
- [ ] New Graduate Academic Assessment Plan
- [ ] New Professional Academic Assessment Plan
- [ ] New Student Learning Outcome (SLO)

Major: CEG - ECR

College: AG

Effective term and year of implementation: Term: Spring Year:2015

IMPORTANT: If you are submitting an **Academic Assessment Plan**, please enter your plan into Compliance Assist, and then submit this form to the approvals submission site. Once we receive this form, we will download the plan for committee review. You do not need to restate the SLOs on this form because the SLOs are in the Plan. Instead, skip items 1-5 and go directly to items 7 and 8, the Department and College Contact Sections.

If you are submitting one or more new **Student Learning Outcomes (SLOs)**, please complete items 1 through 6.

1. Include the new SLO here:

2. Indicate the areas of the SLOs:

Undergraduate: ☐ Content ☐ Critical Thinking ☐ Communication

Graduate: ☐ Knowledge ☐ Skills ☐ Professional Behavior

3. What types of assessments will be used?

- ☐ Course-related Exam
- ☐ Capstone
- ☐ Final Paper/Project/Presentation
- ☐ Course Grades
- ☐ Course Assessments/Assignments
- ☐ Standardized Exam
- ☐ Other – please describe here

4. What assessment methods will be used?

- ☐ Rubric
- ☐ Single Faculty Member

☐ Other:

5. Who applies the method?

☐ Faculty Committee

☐ Single Faculty Member

6. Describe the individual student assessments and the assessment method that will be used to measure each SLO.

7. Department Contact

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School of Forest Resources & Conservation

Ecological Restoration Graduate Certificate

Mission Alignment

The SFRC is part of the University of Florida's Institute of Food and Agricultural Sciences with four missions: undergraduate education, graduate education, research and extension. Our programs provide: (1) a rich personal educational experience for students; (2) new discoveries and applications that enrich lives, communities and natural resources; and (3) lifelong learning opportunities for professionals, policy makers, landowners, youth and the general public. The Graduate Certificate in Ecological Restoration aims to provide this learning, training students and working professionals on restoration ecology, natural areas management, environmental consulting, fire and wildlife ecology, watershed management, and/or mine rehabilitation. This program directly supports and enhances our mission through providing education to individuals who might otherwise be unable to attend the University of Florida.

Student Learning Outcomes

At the conclusion of the Certificate program courses, students will be able to:

1) Apply theoretical and technical knowledge of ecology, soils, and related biophysical sciences in order to plan real-world restoration projects.

2) Analyze and synthesize relevant primary information sources, such as technical reports and scientific publications.

3) Describe various techniques used in ecological restoration, monitoring, and evaluation.

4) Assess implications of socio-economic, ethical, legal, and political dimensions of ecological restoration.

Program Goals

Seventy percent of students assessed are expected to be considered "successful" (as determined through specific assessment methods described below) within each distinct outcome.

Assessment Timeline

Direct assessment of the Student Learning Outcomes is conducted in the single required course (FOR5157, Ecological Restoration Principles & Practices) for the Ecological Restoration Graduate Certificate. This course is suggested as the introductory course for the Graduate Certificate but is not mandated as such; thus, not all direct assessment will happen at the start of the program. Some students may be introduced to various SLOs prior to attending FOR5157.

While the outcomes are reinforced in all possible elective courses and across multiple assignments, the decision to assess a single comprehensive project for all outcomes was justified through the use of a grade-independent scoring rubric provided under *Methods and Procedures*.

SLO	Introduced	Reinforced	Assessed
1	FOR5157	FNR6628 FOR6934, Invaded Ecosystems HOS6932, Plant Materials	FOR5157
2	FOR5157	FOR5159 FOR6934, Policy & Economics	FOR5157
3	FOR5157	FNR6628 FOR6934, Invaded Ecosystems HOS6932, Plant Materials	FOR5157
4	FOR5157	FNR6628 FOR6934, Policy & Economics	FOR5157

Indirect assessment as described below will be conducted during the final term of the student's pursuit of the Graduate Certificate.

Assessment Cycle

All Student Learning Outcomes are assessed for students in the program during every offering of the FOR5157 course, annually in Fall semesters.

Assessment:	November-December – direct assessment
	Indirect assessment varies by student (final term)
Analysis and Interpretation:	January-February
Improvement Plans:	February
Reporting:	September

Methods & Procedures

Student Learning Outcomes are assessed using the Extension Presentation assignment within the required course: FOR5157, Ecological Restoration Principles & Practices.

Assignment description:

> Students will design and deliver a 10 minute Extension Presentation using MS Powerpoint and narration. The presentation will be produced with ecological restoration practitioners as the target extension audience. Student presentations will be uploaded and shared with classmates, and provide course content for Week 15.
>
> Objective
>
> There are two objectives to this assignment: 1) to teach peers about a selected topic in an engaging and thought-provoking manner by producing an Extension presentation, and 2) to demonstrate the ability to synthesize literature (describe principles) and apply lessons learned to ecological restoration (determine practice).
>
> Required components of the presentation
>
> Introduction: Set the stage for your presentation and your topic. Introduce yourself and explain why you chose your topic. Justify your topic and convince your audience why this is an important area of research and information.

Synthesis: Provide a review of the pertinent research on your topic and how it applies to the field of ecological restoration.

Conclusions: Distill the research into a few "take home messages" that will help ecological restoration practitioners be well-informed regarding the topic. Whenever appropriate, include recommendations for restoration actions that can be supported by your synthesis of research. While drawing from personal experience will enhance your presentation, it is important that the focus of your presentation and your conclusions be the scientific literature.

References: To demonstrate mastery of the scientific literature regarding your topic, you must cite at least 5 journal articles (excluding required readings from this course) in your presentation. Include your list of references as your last slide (no need to provide extensive narration for this slide).

The assignment will be graded as usual using an instructor-designed rubric for course grading purposes. For SLO assessment, the following rubric will be used:

Outcome	Criteria	2 Points	1 Point	0 Points
1	**Displays theoretical knowledge of restoration principles.**	Substantive and factual information is used throughout the project.	Relevant content may include non-related ideas.	Content is not relevant to restoration principles.
2	**Utilizes relevant literature sources in a meaningful way.**	Relevant evidence from literature references support project plan.	Includes only one primary source with minimal citations.	No reference made to current research literature.
3	**Describes techniques used in restoration projects.**	Several restoration techniques are described, including monitoring and evaluation.	Minimal description addresses less than two restoration techniques.	Techniques are not described or not included.
4	**Describes various implications of restoration/conservation project implementation.**	Multiple dimensions of implications are addressed and explored.	Discussion of implications is incomplete or includes only one dimension.	No discussion of implications is included.

Scores of "2" are considered successful and for program evaluation purposes, 70% of students assessed are expected to be successful within each distinct outcome.

In addition to this direct assessment, students will be given a self-reflective survey to indirectly assess their perceptions of learning and confidence relative to intended outcomes. This assessment is triggered by the individual application to receive the Graduate Certificate at the end of the program. The surveys will be administered through Qualtrics with the option of anonymity and collected by Sandra Houder.

Data obtained through both direct and indirect assessments will be compiled and reviewed by the online programs office, Distance Education Committee, and Graduate Programs Committee in the School of Forest Resources & Conservation. Weaknesses identified and/or changes needed will be implemented directly and promptly via these groups.

Assessment Oversight

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