**ENVS 350 Course Creation Supporting Information**

Prepared by Brian Compton on 3/6/18 (Part 1), noting the lack of feedback from Science Department personnel (Part 2), and updated on 4/2/18 regarding further revisions for presentation as a second reading (Part 3).

**Part 1**

**Rationale:**

BIOL 388 Twigs is being presented during the Winter 2018 Quarter to two students, and earlier versions of this course have been presented as individualized studies courses to several students at different times in the past. Special Topics courses are intended for one-time offerings only, hence this proposal to create a permanent course with the recommended course subject code, number, and title ENVS 350 Winter Plants. Based on teaching the course to date, the content has been expanded to include not only identification of native deciduous woody plants based on winter twig characteristics and various information associated with those plants, but to also include evergreen flowering plants and pteridophytes (ferns and their relatives), gymnosperms (or conifers), and several other topics related to plants that may be appropriately and productively studied in the winter. These include providing geologic and floristic context for the study of primarily woody plants; traditional cultural considerations, such as woody species used as sources of foods, materials, and medicines as well as wintertime cultural activities associated with native plants (e.g., canoe construction); and brief consideration of phenological aspects of woody species that may be more fully examined in ENVS 450 Phenology. Traditional methods of recognizing seasonal changes throughout the year (i.e., several moons as recognized by the Lhaq'temish [Lummi] people) and select elements of Traditional Phenological Knowledge also are emphasized.

The 300-level is recommended based on the relationship of the course content to that of ENVS 201 Northwest Plants, which is identified as a prerequisite for the proposed ENVS 350 Winter Plants. ENVS 350 builds upon and extends knowledge and skills associated with ENVS 201 and provides an additional opportunity to study local flora during the winter quarter. While ENVS 201 may be taught in any quarter, it is focused on plant identification using plant reproductive characters that may be lacking during the winter. And, as previously noted, it may help prepare students for further upper-division studies, such as BIOL 350 Ethnobiology and ENVS 450 Phenology.

I reviewed the catalogs of all the tribal colleges and universities that are members of AIHEC and found that elements of content included in ENVS 350 may elsewhere be treated in various plant identification, dendrology, or forestry course, e.g., as in the following tribal college and university (TCU) courses:

* BIOL 2040 Native Plant Identification (3 credits), Fond du Lac Tribal and Community College
* FOR 110 Woodland Plants (4 credits), Leech Lake Tribal College
* ES121 Dendrology (4 credits), Keweenaw Bay Ojibwa Community College
* FORS 146 Dendrology (3 credits), Salish Kootenai College
* FOR 230 Dendrology (3 credits), Leech Lake Tribal College: This course focuses on the study of important tree species including identification, geographic range, habitat, importance, and distinguishing characteristics. Students will develop a portfolio of tree species for their final project. Field identification is required in both leaf on and leaf off conditions for local tree species and selected shrubs.
* FORS 225 Intro. to Forestry (3 credits), Blackfeet Community College

However, none of the aforementioned courses have the same focus and content as the proposed ENVS 350.

It is more common at mainstream institutions for some elements of the proposed course to be presented in courses on dendrology (e.g., within forestry programs, and with foci on economic, landscape, and horticultural uses of woody plants), although no such course seems available at the University of Washington, Washington State University, or Western Washington University.

**Prerequisites**

As was recommended for ENVS 450 Phenology and BIOL 450 Mycology, ENGL 102 English Composition II and ENVS 201 Northwest Plants are identified as course prerequisites.

**Course Outcomes:**

The course outcomes were developed based on comparison with the aforementioned other dendrology and related courses offered elsewhere but with a view to providing students with the opportunity to explore botanical topics as related to traditional Indigenous knowledge and experience. Emphasis is on local flora, including the importance of woody plants to environmental considerations and human affairs, and to support the collection and identification of numerous local woody plants. In the Winter 2018 Quarter, students in BIOL 388 Twigs are supported in working collaboratively to identify local woody plants and to construct an exhibit of their collections with additional descriptive materials for display in Building 16.

**Course Texts:**

The required texts are Gilkey & Packard's (2001) *Winter twigs: A wintertime key to deciduous trees and shrubs of northwestern Oregon and western Washington*, and Pojar and MacKinnon's (2016) *Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia and Alaska*. The former title emphasizes winter (dormant state) taxonomic characters and the latter title provided additional botanical and ethnobotanical information. Additional helpful resources also are included in the syllabus.

**Syllabus Design:**

As with my other syllabi, I have employed the use of a table of contents to help students readily access information of interest, including an appendix for less essential information related to the course, but information that nevertheless I regard as important to student learning and which allows the syllabus to support relevant teaching and learning from the outset of the course. The syllabus also includes other information supportive of enhancing students' understanding of Northwest Indian College's Teaching and Learning Philosophy and the purpose of course syllabi, as discussed during development of the current Syllabus Guidelines approved by the Curriculum Committee on 10/26/17.

The weekly outline/schedule of topics and assignments is intended to provide a seasonal and cultural orientation to course content in terms of Indigenous knowledge and cultural significance of local woody flora and the application of knowledge gained, e.g., to matters of personal or environmental concern. In addition to the required course text, instructor's PowerPoints and additional readings also will be used and made available to students.

**Assessment:**

The course will include informal elements of formative assessment as well as several assignments that will contribute toward summative assessment of each student's learning with respect to the course outcomes and other course topics. To this end, the course includes pre-course, mid-term, and final knowledge surveys in which students may demonstrate aspects of their learning. Student research on mycological topics of interest will be supported by production of a formal paper. And, student collaboration will be supported by efforts toward the development of a checklist and exhibit of local flora. A final self-assessment of student learning is included to address other aspects of the students' experiences through reflection regarding their learning, efforts, limiters or barriers to learning, and what grade they believe they have earned at the end of the course.

**Incomplete Agreement and Grade Change Policies:**

Information regarding incompletes and grade changes is provided, including reference to the instructor's Incomplete Agreement Request Form, which is required for all incomplete agreement requests.

**Course Overview:**

This section includes extended comments regarding native plants and other course goals, how plants are related to Indigenous human rights, Lummi beliefs that provide guidance for various aspects of teaching and learning, and seasonal considerations regarding plants.

**Other Elements:**

The syllabus also includes course policies, institutional and program outcomes as related to the course, rubrics for the summative assessment (evaluation) of student assignments, and references for additional materials cited in the syllabus.

**Part 2**

**Additional Information in Response to Science Department Vetting:**

None received as of 3/16/18.

**Part 3**

**Revisions for the Second Reading:**

Based on feedback provided by the Curriculum Committee on 3/22/18 and further review of the proposed course creation materials, the following revisions were made for the second reading:

1) Removal of the final course outcome, which focused on the development of an exhibit of local fungi. After considering the other course outcomes, they seem sufficient and several of them also be met by students working on a final collaborative course product, which may take different forms, based upon student interest.

In addition, the following further revisions were made for the second reading:

2) Non-essential information was moved to the syllabus appendix, including the course disclaimer, philosophy statement, purpose statement, and recommended readings. Some of this information was re-ordered.

3) Ampersands were replaced with *and* except in APA Style references and citations.

4) Some text and point and percentage values associated with course requirements and assignments were revised.

5) The rubrics were collapsed into a single rubric for evaluating the formal paper and class project.

6) All fieldwork and lab tools and materials are now designated as required, rather than some being designated as recommended, based on student requests. This language allows many students to obtain funding from their Tribes to purchase required course materials, where recommended materials may not be similarly supported.

7) Syllabus references and citations were updated.