



College of Forestry

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To: OSU Curriculum Council
From: Troy Hall, Director, BS in Natural Resources program

RE: Comments on the NR action plan

Dear Council members,

Thank you for your careful review and comments on the draft Action Plan we prepared in response to the 2016 review of the Natural Resources BS program. Below are our responses to your three areas of concern.

1. Lack of clarity about program differences among options within the major and how options differ from the Environmental Sciences major. Are the differences in required courses sufficient to differentiate the programs? There is concern about overlap placing “programs at odds for student recruitment, faculty and facility support and funding, and future course offerings.”

Response:

We do not share the Council’s concern about differences among the options within the major is. Most of the options are quite distinct in terms of the courses required, learning outcomes, and career tracks (e.g., Law Enforcement; Human Dimensions in Natural Resources; Fish & Wildlife Conservation). Some of the options do have overlap in courses; however, this is not uncommon for many majors (e.g., see overlap in courses within the Applied Ecology and Conservation, Resources, and Sustainability Options within ENSC). Nevertheless, we are currently in the process of reviewing each NR option for enrollment, learning outcomes, and specific course requirements. This is leading to proposals for elimination of some options and significant refinement of others.

Questions about the differences between the NR and ENSC programs are understandable. Both of these long-established programs have solid enrollments, retention, and graduation, and we do not perceive the programs to be at odds. In fact, according to the Student Cohort Statistics, Student Migration Dashboard in CORE, there have only been a few tracked students that have transferred to/from CEOAS and COF. This implies that students are not having difficulty in distinguishing between the two programs. If the intent of the Council’s comment is that the programs should be considered for merger, then we believe it is beyond the scope of the NR Program Action Plan.

Here are notable differences we see between the NR and ENSC programs:

- NR student learning outcomes focus on planning and management of natural resources, communication, and interdisciplinary problem solving. ENSC student learning outcomes focus on integration of natural sciences with humanities and social sciences; rigorous scientific foundations and quantitative tools; and experiential learning and application.

- The foundational classes (NR 201 and ENSC 101) differ substantially in content (NR201: “Overview of the complexities involved in managing natural resources of the Pacific Northwest. Exposure to major natural resource issues of the region. Development of critical thinking skills useful in seeking solutions”; ENSC 101: “Introduction to the Environmental Sciences Program and related professional and educational opportunities”); NR also has a capstone requirement, whereas ENSC does not. The NR capstone focuses on integration across ecological and social sciences, involves extensive planning and management scenarios and case studies, and involves multiple natural resource contexts (e.g., forestry, range, etc.)
- Total required credits = 188 in NR (22 credits may be double-counted for degree requirements), 160 in ENSC.
- NR has a 40-credit specialization; ENSC has a 27-credit specialization.
- There are several differences in the options within the two degrees. ENSC options focus much more heavily on ecology / biology / earth systems than NRs options. Also, ENSC has options in agriculture and alternative energies, which are not the focus of any options in NR. NR, on the other hand, has options that are less biological in focus, and rather more integrated or interdisciplinary (social and ecological), focused more on planning and management, and have a number of forestry-related options (e.g., Forest Ecosystems, Agroforestry, Urban Forest Landscapes, Fire Ecology) that ENSC does not have.
- NR students have a greater ability to customize the degree to their interest/region/career goals because of the greater variety of course choices. They also have the ability to design their own specialization which is ideal for students with specific career goals or who may have relevant transfer work that does not fit anywhere else. Most NR students create an individualized option.
- NR has fewer math, physics, and chemistry requirements, which gives an opportunity for students who may struggle in those areas to still earn a degree in something they are passionate about.
- NR requires that students have a foundational knowledge that crosses a much wider span of disciplines. For example, ENSC take only one course in Environmental Management in the main requirements for their major while NR students cover at least distinct areas. (Fish and Wildlife, Forestry, Range, Environmental Assessment and Planning).
- Specific differences in core requirements
 - NR accepts 100-level biology (as appropriate for many of the options); ENSC requires 200-level biology
 - ENSC students take a full year of chemistry, while NR students take CH121 as the prerequisite for the BI2XX series.
 - NR requires MTH 251; ENSC requires 8 credits of math.
 - NR requires one Earth Science and one Soil Science class; ENSC requires either Earth or Soil Science
 - NR requires a 200- or 300-level statistics course; ENSC requires a 300-level statistics course.
 - NR students take 2 classes in land and water; ENSC take one course in Hydrosphere
 - NR students take 4 courses in policy, politics, ethics, and social issues; ENSC students take 3.
 - NR students take courses from 4 different areas of resource management; ENSC students take 1 course in environmental management
 - NR requires an animal ID class; ENSC does not

- NR requires a vegetation ID class; ENSC does not
 - NR requires a GIS course; ENSC does not
 - NR requires a measurements course; ENSC does not
 - NR requires an upper division communication class; ENSC does not
 - ENSC requires experiential learning (3-12 credits); NR does not
2. The Council is concerned about the decision not to appoint a tenured faculty member as Director of the NR program because (a) the FES Department Head as director has a conflict in adjudicating between competing priorities; and (b) the staff coordinator may not feel able to advocate for the program's needs because she reports to the DH. The Council believes that the NR program is a "major revenue generator" and could support the faculty director's salary.

Response:

Appointing a faculty member as director would not address these potential issues, because faculty do not make budgetary decisions in the NR program, and the DH would still be in the position of adjudicating among programs within her department. Even if the staff coordinator were to report to a faculty member, the faculty member is supervised by the DH. The NR program is not a major revenue generator for the program itself – few of the courses in the program are taught by Forestry faculty, and any tuition that is redistributed to units goes to the department that teaches the courses. The Dean of the College of Forestry and Associate Dean for Undergraduate Studies have decided not to appoint a faculty director at this time; however, they are cognizant of the demand this places on the DH will re-evaluate this decision in the future.

3. The Council is concerned about workforce and funding for OSU-Cascades and Eastern Oregon University program leadership and administration. The external review recommended a new 1.0 FTE position at OSU-Cascades, but the new hire is being split between NR and ENSC. The Council questions whether FES has "sufficient influence" over program delivery at Cascades (and, presumably, EOU). The Council questions "whether a stand-alone review" of the Cascades and EOU programs is warranted.

Response:

We are pleased that OSU-Cascades agreed to hire a new faculty member to support the NR program. We are also pleased that efficiencies are gained by having the new position teach courses of value to both ENSC and NR. This illustrates solid coordination and cooperation among programs in this time of tightening budgets. As for "sufficient influence," the NR Program has created a new curriculum committee (in accordance with the external reviewers' suggestions) and decisions are made by the Program Committee, which is led by the Program Director but has broad membership from Corvallis, Cascades, Ecampus, and EOU. Leadership of the program is quite collaborative; decisions are made by consensus, and thus far there have been no issues in which the program lead at Cascades (Reuter) and Corvallis (Hall) have disagreed. We have no response to the question about a "stand-alone" review, given that we followed the directions we received for the 10-year review. We acknowledge the concerns about the capacity to deliver the NR degree with integrity at EOU, and we are continuing discussions at higher levels of administration regarding those concerns.