

TOPIC: PROPOSAL TO OFFER A BACHELOR OF SCIENCE DEGREE IN ECOSYSTEM SCIENCE AND SUSTAINABILITY AT COLORADO STATE UNIVERSITY

PREPARED BY: HEATHER DELANGE, ACADEMIC POLICY OFFICER

I. SUMMARY

This consent item recommends approval for the Colorado State University (CSU) to offer a Bachelor of Science (B.S.) in Ecosystem Science and Sustainability.

II. BACKGROUND

The following is summarized from CSU's proposal:

The proposed degree will enhance undergraduate education at CSU and Warner College of Natural Resources (WCNR) by capitalizing on our strengths in the study of complex ecosystems and the research focus and the quantitative and modeling expertise of Natural Resource Ecology Laboratory (NREL).

The new major will require training in: 1) a foundation in biological and physical sciences; 2) core knowledge in the social sciences that focuses on the relationships between humans and the environment, 3) training in ecosystem science and system theory, 4) the development of quantitative approaches for studying and modeling complex ecosystems in both geospatial and temporal contexts, and 5) the development of practical skills to work and communicate in an interdisciplinary context.

ROLE AND MISSION SUPPORT

This degree supports the role and mission of CSU, which is as follows:

There is hereby established a university at Fort Collins to be known as Colorado state university. Colorado state university shall be a comprehensive graduate research university with selective admission standards offering a comprehensive array of baccalaureate, master's, and doctoral degree programs. Consistent with the tradition of land grant universities, Colorado state university has exclusive authority to offer graduate and undergraduate programs in agriculture, forestry, natural resources, and veterinary medicine. The Colorado commission on higher education, in consultation with the board of governors of the Colorado state university system shall designate those graduate level programs that are the primary responsibility of Colorado state university. Colorado state university has the responsibility to provide on a statewide basis, utilizing when possible and appropriate the faculty and

facilities of other educational institutions, those graduate level programs. The commission shall include in its funding recommendations a level of general fund support for these programs. (C.R.S. 23-31-101).

EVIDENCE OF NEED

Interest in environmental issues, from local to global scales, is at an all-time high. These interests are manifest in stronger demand for programs. Since 2008, WCNR has seen a 36% increase in total students and the College sees Ecosystem Science and Sustainability as a clear area of growth and interest. CSU already has great strengths in the fields that comprise ecosystem science and sustainability, but lacks a high-profile undergraduate major that can be used to recruit top-quality students, and produce highly employable graduates.

The U.S. Department of Labor's 2010-2011 Occupational Outlook Handbook (<http://www.bls.gov/oco.ocos311.htm>) projects that the number of jobs in environmental science will grow "much faster than the average for all occupations," increasing by 28% from 2008-2018.

CSU anticipates enrollments of 200 students within five years of launching the new degree program. The University of Virginia has had one of the longest-standing programs in environmental science and their undergraduate enrollment rose 45% in the past five years. The Association for Environmental Studies and Sciences featured an article in 2009 that summarized the status and recent developments in U.S. universities. Enrollment in these majors increased during the period of 2003 to 2008 in 58% of the universities, and held steady for another 29%.

DUPLICATION

Department staff confirms that no other public Colorado institution of higher education offers a degree that focuses specifically on ecosystem science.

III. STAFF ANALYSIS

Pursuant to Colorado Revised Statutes 23-5-129 (6)(b), department staff finds that CSU's proposed Bachelor of Science in Ecosystem Science and Sustainability is consistent with its statutory role and mission.

IV. STAFF RECOMMENDATION

Approval of Colorado State University's proposal to offer a Bachelor of Science in Ecosystem Science and Sustainability.

V. SUPPLEMENTAL INFORMATION

Copies of all relevant materials are on file in the Academic Affairs office and are available upon request.

STATUTORY AUTHORITY

C.R.S. §23-5-129

(6) While operating pursuant to a performance contract negotiated pursuant to this section, the governing board of a state institution of higher education:

(b) Need not consult with nor obtain approval from the Colorado commission on higher education to create modify, or eliminate academic and vocational programs offered by the institution, so long as such creations, modifications, and eliminations are consistent with the institution's statutory role and mission. Institutions shall submit information to the department demonstrating that the creation or modification of an academic or career and technical education program is consistent with the institution's statutory role and mission. The Colorado commission on higher education shall have the authority to override the creation or modification of an academic or vocational program if the change made by the governing board is inconsistent with the institution's statutory role and mission.