Docket Item:

University Program Approval: Oregon State University (OSU), B.S. in Biochemistry and Molecular Biology.

Summary:

OSU proposes a new degree program leading to a Bachelor of Science in Biochemistry and Molecular Biology. Higher Education Coordinating Commission (HECC) staff completed a review of the proposed program. After analysis, HECC staff recommends approval of the program as proposed.

Staff Recommendation:

The HECC recommends the adoption of the following resolution:

RESOLVED, that the Higher Education Coordinating Commission approve the following program: B.S. in Biochemistry and Molecular Biology at Oregon State University, effective Fall 2016.

Oregon State University seeks the Oregon Higher Education Coordinating Commission's approval to offer an instructional program leading to a B.S. degree in Biochemistry and Molecular Biology.

1. *Describe the purpose and relationship of the proposed program to the institution's mission and strategic plan.*

   Oregon State University (OSU) is proposing a new Bachelor of Science (B.S.) in Biochemistry and Molecular Biology (BMB) degree program. The program will be located in the Department of Biochemistry and Biophysics, School of Life Sciences, College of Science. The objective of the BMB degree at OSU includes: (a) providing a degree path centered on the molecular basis of living systems with training in molecular genetics, biochemistry, and cell biology, as well as in rapidly evolving areas, such as bioinformatics, chromatin structure, and epigenetics; (b) allowing students to study molecular processes without requiring the in-depth study of physical chemistry and biophysics that will have less relevance to their careers; and (c) preparing students with advanced knowledge in BMB and the techniques necessary to be successful in a variety of careers as modern molecular biologists. As a land grant institution committed to teaching, research, and outreach and engagement, OSU promotes economic, social, cultural and environmental progress for the people of Oregon, the nation and the world.

   The primary mission of the OSU Department of Biochemistry/Biophysics in support of the OSU mission is undergraduate and graduate education and research. The new BMB degree program has been designed to better serve the needs of undergraduate students seeking careers in the rapidly evolving biosciences and biomedical fields. Further, the new BMB degree is not only aligned well with OSU's Land Grant status, but it will contribute to two of OSU's signature areas of distinction: (a) Improving Human Health and Wellness and (b) Promoting Economic Growth and Social Progress.

2. *What evidence of need does the institution have for the program?*

   The Oregon Department of Employment has projected a 17.8% growth across 88 STEM (Science, Technology, Engineering, and Mathematics) occupations in Oregon between 2010 and 2020. National and state data indicate Oregon will have a strong demand for STEM-trained professionals that is not currently being adequately supplied by STEM-major graduation rates at OSU. This modernization of bioscience STEM training at OSU is therefore of critical importance if we are to help the state to staff the biotech industries currently here.

Notably, the BMB degree will prepare students for what "Genetics and Engineering News" wrote in 2012 would be six of the top ten biotech jobs most in demand over the next decade: medical scientists, biological technicians, medical and clinical lab technologists, biochemists and biophysicists, R&D process development scientists, and regulatory biomanufacturing specialists. In addition, the new BMB degree will be a close match to a common pathway to medical school and graduate studies and careers in molecular biology and in broader biohealth science professions that is already present at most other universities.

3. *Are there similar programs in the state? If so, how does the proposed program supplement, complement, or collaborate with those programs?*

   No other B.S. in Biochemistry and Molecular Biology degree is offered in Oregon's public universities. Related programs offered at OSU include the B.S. in Biochemistry and Biophysics (offered in the same department), the B.S. in Microbiology and B.S. in BioHealth Sciences offered in the Department of Microbiology, the B.S. in Biology and B.S. in Zoology offered by the Department of Integrative Biology, the B.S. in Botany with a concentration in Molecular, Cellular and Genomic Biology offered by the Department of Botany and Plant Pathology, and the B.A./B.S. in Chemistry with a Biochemistry or Advanced Biochemistry option offered by the Department of Chemistry. The University of Oregon offers a B.A. in Biochemistry and B.A./B.S. degrees in Biology with a Molecular, Cellular, and Developmental Biology emphasis. Portland State University offers a B.S. in Biochemistry and a B.S. in Biology with a focus on Microbiology/Molecular Biology. Eastern Oregon University offers a B.S. in Biochemistry.

All appropriate University committees and the Statewide Provosts Council have approved the proposed program. The Oregon State University Board of Trustees approved the program on June 3, 2016.

Recommendation to the Commission

The Statewide Provosts Council recommends that the Oregon Higher Education Coordinating Commission authorize Oregon State University to establish an instructional program leading to a Bachelor of Science (B.S.) degree in in Biochemistry and Molecular Biology, effective Fall 2016.

Institution: **Oregon State University**
Program: **B.S. in Biochemistry and Molecular Biology**

Action: At the October 6, 2016 meeting, the Statewide Provosts Council approved a new program for Oregon State University, B.S. in Biochemistry and Molecular Biology, to move forward to the Oregon Higher Education Coordinating Commission for its review/approval. The OSU Board of Trustees approved it at their June 3, 2016 meeting.

Eastern Oregon University
Sarah Witte, provost
_X_ Approved
__Opposed
__Abstained

Oregon State University
Ron Adams, interim provost
_X_ Approved
__Opposed
__Abstained

Portland State University
Sona Andrews, provost
_X_ Approved
__Opposed
__Abstained

University of Oregon
Scott Coltrane, provost
_X_ Approved
__Opposed
__Abstained

Oregon Health & Science University
David Robinson, executive vice provost
_X_ Approved
__Opposed
__Abstained

Oregon Tech
LeAnn Maupin, interim provost
_X_ Approved
__Opposed
__Abstained

Southern Oregon University
Susan Walsh, provost
_X_ Approved
__Opposed
__Abstained

Western Oregon University
Steve Scheck, provost
_X_ Approved
__Opposed
__Abstained