

## BACKGROUND AND RECOMMENDATION

### THE OHIO STATE UNIVERSITY

#### Bachelor of Science in Environmental Engineering

#### RECOMMENDATION

This program meets the Chancellor's minimum standards for baccalaureate degrees. There were no concerns identified in the review. Approval is recommended.

**Request:** The Ohio State University requests approval for a Bachelor of Science in Environmental Engineering (BS in Environmental Engineering). The proposed program is currently an option within Ohio State's Bachelor of Science in Civil Engineering. The existing environmental engineering option is accredited by the Accreditation Board for Engineering and Technology (ABET) and will transition to the Bachelor of Science in Environmental Engineering. The proposed degree will bring the program into conformity with changes in accreditation and the content of the relevant licensing exam for a professional career in environmental engineering. A sequence of technical electives that focus on the water, wastewater and solid waste components of environmental engineering will continue to be offered to serve the traditional needs of civil engineering majors. The Bachelor of Science in Environmental Engineering will be administered by the Department of Civil and Environmental Engineering and Geodetic Science in the College of Engineering.

**Program Purpose/Mission:** The BS in Environmental Engineering is an undergraduate degree program that provides students with a background in air, land and water pollution, and environmental health. It is designed to meet academic accreditation and professional licensing standards through ABET and the National Council of Examiners for Engineering and Surveying (NCEES). Graduates will also be academically prepared to pursue advanced degrees (MS/Ph.D.) in environmental engineering. The BS in Environmental Engineering is the preferred degree for accreditation and licensure and provides undergraduate preparation in chemistry, biology and other topics important to environmental engineering.

Environmental engineering is the planning, design, construction, operation, and maintenance of facilities for the protection of human health and safety as well as the preservation of wildlife and the environment. It includes water supply and resources, environmental systems modeling and sustainability, environmental chemistry, wastewater management, solid waste management, hazardous waste management and remediation, atmospheric systems and air pollution control, in addition to environmental and occupational health. Graduates of environment engineering programs are found in engineering and administrative posts in industry, construction, research, government, and consulting.

**Enrollments:** Based upon historical enrollment patterns and student surveys, Ohio State expects that approximately ten students will begin the program each year, with new enrollments drawn from other sources as a result of marketing of the new degree opportunity and the needs of the environmental field. The proposed program is the only ABET-accredited BS in Environmental Engineering degree program in Ohio. Ohio State established an Environmental Engineering

Advisory Committee of industry experts to facilitate cooperation with corporate, research and government parties in Ohio.

**Curriculum:** The curriculum for the proposed degree (200 quarter credit hours) includes an engineering core curriculum, professional courses for environmental engineering (chemical and biomolecular engineering, chemistry, environmental engineering, microbiology, and soil science) and technical electives. Several major elective options are available to students. Where applicable, courses are part of the articulation and transfer options in chemical and environmental engineering as well as other foundation and general education areas. Graduates of the proposed degree program will be eligible to sit for the professional engineers licensing examination (Parts I and II) in environmental engineering.

**Resource/Faculty Needs:** Ohio State's College of Engineering provides sufficient resources for the program. Current faculty members in the College of Engineering, environmental engineering option are sufficient to support the program.

**End of Comment Period: June 15, 2009**

**No Comments Received: Recommend Approval**

Approved		
Eric D. Fingerhut, Chancellor		6/26/09 Date

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