

March 20, 2008

**UNIVERSITY OF MICHIGAN-FLINT
REGENTS COMMUNICATION**

ACTION REQUEST

SUBJECT: New Undergraduate Degree Program by the Department of Computer Science, Engineering Science and Physics, College of Arts and Sciences at the University of Michigan-Flint

ACTION REQUESTED: Approval to offer a new Bachelor of Science Degree in Mechanical Engineering, College of Arts and Sciences at the University of Michigan-Flint

EFFECTIVE DATE: April 1, 2008

The College of Arts and Sciences, through the Department of Computer Science, Engineering Science and Physics, at the University of Michigan-Flint proposes a new undergraduate degree program, "Bachelor of Science Degree in Mechanical Engineering," effective April 1, 2008. This is in response to needs of our undergraduate students who are interested in a more discipline-specific engineering field of study than currently offered. This also serves the need of industrial infrastructures by providing a technical workforce that is critical for attracting industries in this part of the state to replace the declining automotive manufacturing industry base.

This degree program will replace Option A in the current B.S. Engineering Science program which allows students to take 24 credit hours of elective engineering courses. Students that complete this program of study will have enhanced career marketability in the area of mechanical engineering versus having a degree in the general engineering track. The proposed program is designed to also equip our students to develop new start-up companies, which is essential for economic development in southeast Michigan.

The proposed curriculum includes 29 credits from mathematics, science, and computer programming courses, 38 credits from core engineering courses, 24 credits from mechanical engineering elective courses, and required general education courses with a minimum of 129 credits required for graduation. There is a strong interest at both the Department and College level to improve the current Engineering Science programs by adding computer-aided engineering analysis courses such as Finite Element Analysis and Computational Fluid Dynamics. The mission and vision of the B.S. Mechanical Engineering program are to produce engineers who are technically competent, creative, literate, and globally and socially aware to be successful in competitive environments.

The proposed BS in Mechanical Engineering has been thoroughly reviewed and supported by the University of Michigan-Flint College of Arts and Sciences faculty, Academic Affairs Advisory Committee, the Chancellor's Advisory Committee for Budget and Strategic Planning, as well as the interim provost and interim chancellor.

The proposed curriculum is consistent with the guidelines of the EAC/ABET (Engineering Accreditation Council/Accreditation Board for Engineering and Technology). In addition to technical content, these courses provide practice in forming and working in teams, preparing and presenting oral and written technical reports, and developing advanced computer skills. Engineering design caps the program with students designing and constructing engineering projects.

The proposed degree program fully supports the educational mission of the University of Michigan-Flint. Pending approval of the proposal, the program will begin to admit students for the fall 2008 semester. The program will be included in the Department's comprehensive student outcomes assessment plan which has been approved by the University of Michigan-Flint Academic Assessment Committee. We currently have sufficient faculty and space to initiate this program.

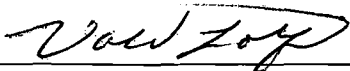
We therefore enthusiastically recommend and endorse the proposed Bachelor of Science in Mechanical Engineering, effective April 1, 2008.

RECOMMENDED BY:

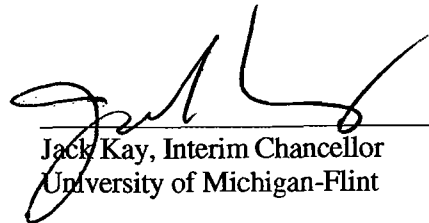


D. J. Trela, Dean
College of Arts and Sciences

RECOMMENDATION ENDORSED BY:



Vahid Lotfi, Interim Provost and
Vice Chancellor for Academic Affairs



Jack Kay, Interim Chancellor
University of Michigan-Flint

March 2008