

# University Senate of Michigan Technological University

## Proposal 28-05

(Voting unit: Academic Senators)

### Proposal for Bachelors Degree Title Change

Proposal to change

“Bachelor of Science in Surveying”

to

### “Bachelor of Science in Surveying Engineering”

#### 1. General description and characteristics of program.

The School of Technology currently offers a Bachelor of Science in Surveying. The curriculum requirements for this program are in compliance with the course content guidelines as set forth in the administrative rules established by the Board of Professional Surveyors. The prescriptive curriculum criteria of the state board of professional registration includes sufficient math, science, engineering science, engineering and surveying as to be eligible for ABET accreditation under the Engineering Accreditation Commission. Professional Surveyors are now found in fields where expert knowledge in mensural science is required. These fields include creation and administration of Geographic and Land Information Systems (GIS and LIS); geodesy; remote sensing; resource and natural resource management; photogrammetry; bathymetry; navigation, machine control and logistics; engineering fields including construction and site design; as well as satellite telemetry, and space exploration.

#### 2. Rationale.

This proposal is based upon the requirements for submission of "Spin-off" programs to the Presidents Council of State Colleges and Universities. The Council defines spin-off programs as "new options, new combinations of existing curricula, new fields or concentrations within existing academic majors and degree programs, and title changes." In this case we are seeking a title change to reflect the wide array of options for the graduate in this program.

The Surveying Industrial Advisory Board has for several years expressed the opinion that the name change from Land Surveying to Surveying Engineering was essential to the advancement of the program. The admissions office has recently suggested that it will also assist the recruitment and retention in the degree program. The name Surveying Engineering will also better reflect the multiple career paths available to today's surveyor. This name change is fundamentally important to not only the continuation of a survey program at Michigan Tech, but the revitalization and strengthening of surveying education to produce quality graduates capable of moving the surveying industry forward into the many directions that the surveying profession will head in the future.

#### 3. Discussion of related programs within the institution and at other institutions.

Nationally, there are 19 surveying or surveying related programs accredited by ABET. Of this 19, eight of the programs are accredited as engineering and the others are divided between the technology and applied science commissions. Of note is the fact that the three programs in the closest proximity to Michigan Tech are all EAC/ABET accredited.

#### At Michigan Tech

Software Engineering in the College of Science and Arts

#### Accredited Engineering Programs

California State Polytechnic University, Pomona

California State University, Fresno

Maine, University of

New Mexico State University

Pennsylvania State University, Wilkes-Barre Campus, Commonwealth College (changed to surveying engineering in 2004)

Ohio State University, The

Purdue University at West Lafayette

Ferris State University

Summary:

To be competitive with the relatively small number of universities and colleges with BS degrees in surveying requires the ability to market a comparable program in both title, curriculum and accreditation. Changing the name to survey engineering will improve the visibility and recognition of the program.

2. Curriculum design (refer to format of degree audit form).

This is a degree title change only – no curriculum design changes are required or proposed.

3. New course descriptions. (New Course Add Forms are needed for each course and will be processed upon final approval of program.)

This is a degree title change only – no new courses are required or proposed.

4. Additional resources required. (Additional information may be requested by the Senate Finance Committee.)

This is a degree title change only – no additional resources courses are required or proposed.

5. Accreditation requirements.

EAC/ABET accreditation. Currently ASAC/ABET visit held 2004.

6. Planned implementation date.

August 2005.

*13 April 2005: Adopted by the Senate*

*20 April 2005: Approved by President Mroz*