

Recreating a Surveying Program at the University of Maine

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The Spatial Information Engineering program, long a leader in surveying education, is reconfiguring its curriculum to eliminate traditional surveying topics. It plans to begin offering a B.S. degree in Information Systems Engineering (ISE) starting with the Fall Semester 2003. Soon after the announcement of the changes, surveyors in New England and across the United States expressed dismay with the demise of a surveying curriculum. Joe McNichols (New England Section of ACSM) and Jason Racette (Bureau of Land Management) took the lead in exploring alternatives and helped organize support for continuation of a surveying program. Numerous surveyors and alumni expressed overwhelming support for continuation of a surveying program by writing to and calling the Dean of the College of Engineering and the Provost at the University of Maine. The Director of the School of Engineering Technology, David Dvorak, was willing to take on the challenge of recreating a traditional surveying program within engineering technology. As a result, the decision was made to place the surveying program within the School of Engineering Technology. A surveying program and bachelor's degree in Surveying Engineering Technology was the result of this effort.

The School of Engineering Technology (SET) comprises approximately one-third of the undergraduate student population within the College of Engineering. SET is presently composed of three programs providing a bachelor of science degree. The present programs are Construction Management Technology, Electrical Engineering Technology, and Mechanical Engineering Technology. The practical aspects rather than the theory of these disciplines are emphasized in the teaching. SET focuses on providing quality graduates that meet the needs of prospective employers (constituents). Students are taught the practical and technical skills necessary to be placed in positions of responsible charge. Students will be given the knowledge that fosters their ability to learn and grow with employment needs in the surveying profession.

The sources of a practical education are the faculty. Accordingly, SET requires that all SET faculty have at least a master of science degree in an appropriate discipline, be licensed within their appropriate profession, and have at least three years of practical experience. Consequently, surveying engineering technology faculty can be expected to focus on those aspects of surveying education that form the core of professional surveying services. SET faculty are expected to excel in teaching. Research is not required, it is instead optional. Consulting is encouraged to keep professional knowledge of faculty up to date.

Presently, Ray Hintz and Knud Hermansen are two of three full-time faculty designated to teach in the surveying engineering technology program. Louis Morin, a faculty member in forestry, will also be an important part of the program as a cooperating faculty. Together, the faculty have prepared a surveying engineering technology (SVT) curriculum. The surveying engineering technology curriculum was designed to meet three criteria. First, the curriculum was designed to provide students with the skills and education leading to professional land surveyor licensure. Taking the land surveying fundamentals exam is required for graduation (LSIT). Complying with the Associated Board of Engineering and Technology/Technology Accreditation Commission (ABET/TAC) was the second requirement that the curriculum was designed to meet. ABET/TAC requirements include plane surveying, land development, boundary law, photogrammetry, GIS, and other related areas. A degree that meets the ABET/TAC criteria will allow graduates to sit for the engineering fundamentals exam (EIT). The third criteria involved providing maximum flexibility in permitting transfer credits from two-year surveying programs in New England states. Some students will be able to use the flexibility of the program to obtain a minor in business or construction management technology. Students that obtain a minor in business will be able to obtain an MBA with one year of additional study.

In order for the program to successfully provide high quality and well-trained surveying graduates, the program must have people apply to the program. Help from the surveying profession is absolutely vital in helping to recruit. Surveyors must be willing to visit community colleges, technical colleges, and high schools to encourage those students to enter and excel in the surveying profession by starting with a practical education. Donations will be sought to fund scholarships and keep

equipment and software current. The New England surveying educational opportunities, including the new SVT program, are a part of the surveying profession. The surveying educational programs and the profession will survive and thrive by supporting each other.