Surveying Engineering
Official Program Checksheet

Why Choose Surveying Engineering?

Instruction in this program emphasizes theoretical principles as well as practical applications of advanced surveying techniques and related computational procedures, geodesy, map compilation and photogrammetry, business aspects of operating a surveying firm, geographic information systems (GIS) and planning and conducting surveys.

Students in the Surveying Engineering program must complete advanced mathematics, have an aptitude for physical science and have the ability to work effectively as a team member.

The Bachelor of Science program in Surveying Engineering is designed to meet the needs of all students in the program. The Surveying Engineering program educational objectives are as follows:

- Program graduates will apply communication skills, lifelong learning attitude, and the knowledge of mathematics and basic science to attain advancement within the surveying profession.
- Program graduates will exhibit creativity, leadership and team-building abilities, cultural appreciation and an understanding of global, societal, and environmental context consistent with the principles of sustainable development.
- Program graduates will be engaged in the professional practice of surveying engineering with high ethical and professional responsibilities.
- Program graduates will strive for professional licensure.

Career Opportunities

Surveying engineering is the science of making precise measurements of the Earth's surface with the aid of sophisticated electronic instruments. A challenging and satisfying profession, surveying engineering is of vital importance for national defense, exploration, conservation, preservation of natural resources and land development.

There is a very high demand for surveying engineers, with five to six job opportunities for every graduate. Professional surveyors can choose to join an existing surveying and/or civil engineering firm or enter private practice following completion of licensing requirements. Graduates may also find employment with local, state and federal governmental agencies. In addition, surveying engineers are needed in resource recovery, oil and mineral exploration and other high-tech industries.

Admission Requirements
Admission to the College of Engineering Technology is open to high school graduates who demonstrate academic preparedness, maturity and seriousness of purpose with backgrounds appropriate to their chosen program of studies. Among first-time students in our technical programs, the average high school GPA is 2.8, and the average ACT composite score is 20.

Students entering the Surveying Engineering program must have a high school diploma (or equivalent) with a minimum 2.5 GPA and a minimum ACT math subscore of 26 or SAT 16 of 610 (MATH 220 Placement) Transfer students must have a 2.0 GPA or better for previous college coursework and a MATH 220 placement.

**General Education Requirements**

All University General Education requirements can be found here: [http://www.ferris.edu/HTMLS/academics/general-education/requirements/BA-BS.htm](http://www.ferris.edu/HTMLS/academics/general-education/requirements/BA-BS.htm)

Please consult this link for a complete listing of General Education Electives: [http://www.ferris.edu/HTMLS/academics/general-education/courses/index.htm](http://www.ferris.edu/HTMLS/academics/general-education/courses/index.htm)

Consult the official checksheet or program advisor for program specific General Education requirements.

**Graduation Requirements**

The Surveying Engineering program at Ferris leads to a Bachelor of Science degree. Graduation requires a minimum 2.0 cumulative GPA overall. Students must complete all general education requirements as outlined on the General Education website.

**More Information**

Surveying Engineering Program  
College of Engineering Technology  
Ferris State University  
915 Campus Drive/Swan 312  
Big Rapids, MI 49307  
or call (231) 591-2633  
email: surveying@ferris.edu

The College of Engineering Technology Surveying Engineering BS program is an accredited program of the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC-ABET)


The next accreditation review is scheduled for 2017.