

ENGINEERING TECHNOLOGY AND SURVEYING ENGINEERING

Undergraduate Program Information

Mission Statement

The mission of the Department of Engineering Technology and Survey Engineering (<https://et.nmsu.edu/>) (ETSE) is to provide a student-centric education through experiential learning to prepare students for a rewarding career. In particular,

- faculty work closely with students and each other to foster a family-like environment;
- unlike traditional engineering, core courses that emphasize real-world applications and hands-on learning experiences; and
- graduates advance to enhanced career opportunities with competitive compensation.

We aim to help students from diverse backgrounds reach their full potential and become successful engineers, technologists, and leaders in the region and nationwide.

Programs Overview

Under the motto of “linking theory and application,” the ETSE curriculum emphasizes the practical, hands-on application of engineering principles and methods. ETSE students learn about designing, building, and testing systems through in-class exercises, hands-on laboratory projects, and teamwork. This approach provides ETSE students with a holistic view of their fields and prepares them to be effective real-world problem solvers. A wide variety of majors, concentrations, and minors are offered by the ETSE Department, including:

Bachelor's Degrees with majors and concentrations in:

- **Civil Engineering Technology (CET)**
 - Renewable Energy Technologies
 - Transportation Technology
- **Electrical Engineering Technology (EET)**
- **Geomatics (GMAT)** hybrid/online options
- **Information and Communication Technology (ICT)** - online
 - Cyber Defense
 - Network Technologies
 - Software Development
- **Mechanical Engineering Technology (MET)**
 - Manufacturing
 - Renewable Energy Technologies

The *Bachelor of Science* curricula are developed based on the program criteria established collaboratively by their **ABET** accreditation commissions (*Engineering Technology Association Commission* and the *Applied and Natural Science Accreditation Commission*, respectively) and the programs' Industrial Advisory Committees (IAC). Visit the ETSE website (<https://et.nmsu.edu/>) for further information on ABET accreditation and program criteria.

The Information and Communication Technology (ICT) program is accredited by the Computing Accreditation Commission (CAC) of ABET.

The program has also been validated by the National Security Agency (NSA) as a recognized Program of Study, affirming its alignment with nationally recognized cybersecurity and information assurance education standards. Additional information regarding accreditation and program recognition is available at <https://et.nmsu.edu/accrediation/information-communication-technology/ict.html>.

Students enrolled in the Geomatics and ICT programs at NMSU will have the option to complete their coursework online or in-person. The ETSE online programs provide flexibility, allowing students to complete their undergraduate education remotely, engage with faculty virtually, and access online resources at any time. Students in the main campus programs will have in-person courses, with some courses offered online.

Graduate Program Information

Mission Statement

The mission of the Engineering Technology and Surveying Engineering Department regarding graduate education is to provide a 100% online, asynchronous, professional post-baccalaureate education focused on providing graduates with advanced knowledge and skills that will augment career opportunities. The ETSE department fosters educational excellence and provides working professionals and traditional technology students opportunities to increase their knowledge and skillsets.

Program Overview

The ETSE Department offers the Professional Masters of Information Technology (M-IT) (<https://nmsu-preview.courseleaf.com/global/nmsu-global/information-technology-mit-online/>), designed for working IT professionals and students interested in pursuing an advanced technology degree. Topics include system architecture, computer networking, development and application of software tools, cybersecurity, and virtual systems in enterprise IT decision-making.

The M-IT program's vision is to provide an advanced Information Technology education that is contemporary and relevant to recent IT graduates and long-time IT professionals. The program strives to be accessible in delivery and flexible in the curriculum.

The requirements for enrollment into the Professional Master of Information Technology program are as follows:

- Bachelor's degree in Information Technology or a closely related field (must submit transcripts)
- Undergraduate GPA of 3.0/4.0 or higher
- Statement of purpose – One page describing your experiences and background, professional goals, and your reason for applying to the M-IT program
- Contact information for one recommendation
- Applicants with an undergraduate GPA greater than 2.5/4.0 but less than 3.0/4.0 may be accepted provisionally on a case-by-case basis.
- Applicants who do not have a Bachelor's degree in Information Technology or a closely related field but have relevant IT experience may apply. If accepted, the graduate advisor will design a plan of study that may include appropriate leveling courses.
- GRE scores are not required for applicants who have earned their undergraduate degree from an accredited US University.

Master's Accelerated Program

The Master's Accelerated Program (MAP) option combines some of the baccalaureate degree requirements in IET or ICT and the professional Master of Information Technology. Visit the Masters Accelerated Program

(MAP) (<https://enr.nmsu.edu/students/Fifth-page.html>) website for further details. This option will add a pre-application process as detailed below:

Pre-Application Process: Students will submit a "pre-application" to the ETSE department to receive approval for the accelerated professional Master's program. Students interested in completing the MAP must submit the pre-application within approximately 12 credits of earning a Bachelor's degree in an IET or BICT; the ETSE department website will include an application form. Qualification for the Bachelor + Masters of IT (B+M-IT) program will be based on the cumulative grade point average in courses taken to that point and recommendations by faculty members listed on the departmental application. Students having a grade point average below 3.0 may be admitted on a case-by-case basis, depending on faculty recommendations and evaluations of the individual's academic and professional history. Additional factors might be considered when available (e.g., TOEFL/IELTS scores).

Once the ETSE department has reviewed the pre-application, accepted, and notified the applicant of acceptance in the accelerated program, the applicant must formally apply to the graduate school for formal admission into the M-IT program. Students must apply to the NMSU Graduate School during the final semester of their undergraduate program education.

Note: The student must apply to the B+M-IT accelerated program **before** taking any 450 (and above) level courses.