If the first describes you, a traditional engineering program may suit you best. If the latter is you, engineering technology may be your better choice. Here's why:

- A key facet of engineering technology programs is laboratory explorations. Essentially all technical studies are accompanied by lab exercises in which students learn to operate state-of-the-art scientific and technical equipment and to appreciate its capabilities and limitations. In comparison, engineering programs put much less emphasis on laboratory work.
- In lieu of laboratory work, engineering programs emphasize study of the more theoretical concepts in math and science, as appropriate to intense, detailed analytical modeling of machines and the world. Engineering technology, on the other hand, focuses on how math and science methods and tools can be used to identify practical uses of available technology to solve real-world problems, i.e., to help answer why things work and to identify ways to make them work better.

Finally, engineering technology's emphasis on lab work creates an additional advantage to those who may have work experience in a technical area or have had technical training in other institutions such as the military. Because much of that type of experience can substitute for lab work in the educational context, students entering with that background can often accelerate their time to graduation.

Clearly, these explanations cannot answer all the questions you may have about the advantages of an engineering technology course of study, but hopefully it is sufficient encourage you to pursue the question further. To that end, the best course of action is contact us (our information is below).



School Name
School address
School address, State, Zip

Telephone
Email address

Visit us on the web: ***website***

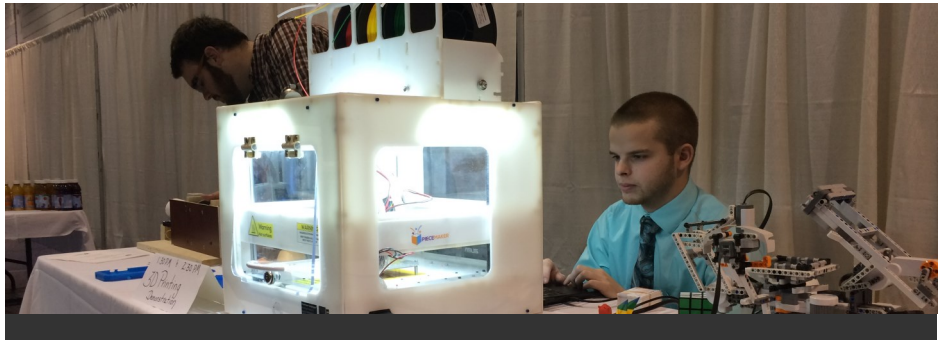
ENGINEERING TECHNOLOGY

FOR PROSPECTIVE STUDENTS



The DEGREE is ENGINEERING TECHNOLOGY;

The CAREER is ENGINEERING.©



Engineering Technology: The Value of Practice-Oriented Engineering Education

Engineering Technology (ET) education as a pathway to an ***engineering career***: What does it offer?

The Value to Students:

- An emphasis on practice-based learning via hands-on laboratories using state-of-the-art equipment
- Examining and solving "real-world" problems in the process of learning engineering
- Learning from faculty who are actively engaged with local, cutting-edge technology industries
- Internships opportunities with local industry via faculty connections
- Recognition of and accepting workforce experience as a component of the educational curriculum

The Value to Industry:

- Engineers that understand the key facets of problem solving in a "real world" environment
- Engineers familiar with the capabilities AND limitations of state-of-the-art technology
- Engineers that can identify and implement practical solutions using available technology
- ET programs can easily adapt curricula to support specialized needs of local industry
- ET faculty involvement with local industry opens opportunities for specialized university support to those industries

The Value to Academic Institutions:

- ET faculty involvement with local industry enhances the institution's reputation in the community
- ET faculty involvement with industry can lead to development support for the institution
- Coupling of applications-based ET faculty with design-based engineering faculty enhances and broadens research capabilities of the institution
- The ability to credit workforce experience increases enrollments by non-traditional students
- Articulations with community colleges and technical schools increases enrollments

Engineering Technology education as a pathway to an *Engineering career*:

What does an Engineering Technology degree offer you as a prospective student?

Before answering that question it is informative to consider the career opportunities that dominate the job market in the USA today. One cannot watch the news, read a newspaper, or scan a current events publication without learning that industry's demand for talent today is concentrated in what are termed STEM fields, where STEM means science, technology, engineering, or math. While STEM-related fields encompass a wide range of studies, central among those is the study of engineering, where in broad terms engineering can be defined as the practice of applying math, science, and technology to address issues important to the society and environment in which we live.

If that kind of career is what interests you, a 4-year degree in engineering technology is one of the two major avenues to a career in engineering, the other being a 4-year degree in traditional engineering. Both are appropriate paths to the engineering profession, but the key question is…"which is the better choice for you?" To help you answer that question, here are some things to consider:

Which of these better describes you as you study and learn:

- Are you most comfortable reading a text or reference document, reflecting on its meaning, using mathematical models to represent what you read, and projecting how that information can be projected to other situations?
- Conversely, do you routinely wonder how things work, like to take things apart to see how they work, do experiments to see what happens, work on your car, or just in general tinker with things?

involved with industry and aware of developing technology, typically through consulting, industry-based conferences, etc. The purpose – to bring this knowledge back to the classroom so students are aware of how technology is actually being used. Many times this includes student involvement with actual industry problems.

Second, industry involvement influences lab experiences. Lab activities are designed to highlight the practical impacts of coupling theory and application of technology to arrive at effective solutions to problems. ET graduates bring this knowledge to the job, again on day one. The result – ET graduates come to the job adept at recognizing how technology can work at the production level, a talent particularly valuable for duties in operations, maintenance, field service, integration, and sales.

Does the following describe your company's experience with problem-solving teams?

'Project teams with of a breadth of talent representing multiple disciplines with differing perspectives on problem solving produce better results.'

Clearly, there is much overlap in the concepts and topics covered in engineering and engineering technology programs. Yet there is also a distinct difference in the emphasis on theory and analysis versus applications and practice. Importantly, though, the distinctions are complementary components of the engineering enterprise. Having both available permits project teams to benefit from the synergy of differing learning styles, problem-solving approaches, and perspectives on solution methods.

If you would like more details about our Engineering Technology programs, please contact us (our information is below).



School Name
School address
School address, State, Zip

Telephone
Email address

Visit us on the web: ***website***

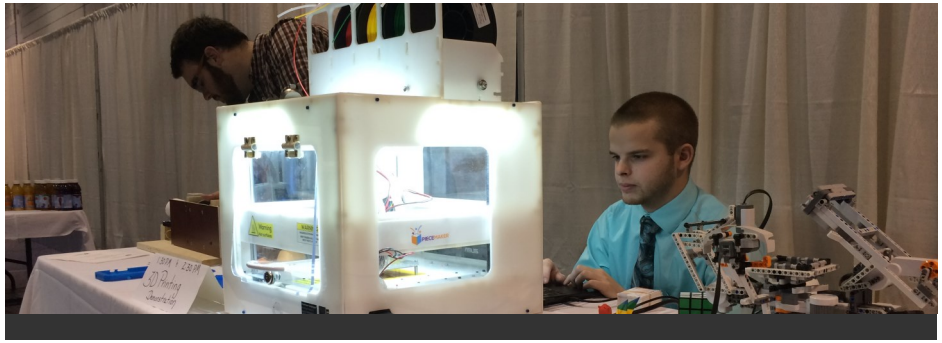
ENGINEERING TECHNOLOGY

FOR ENGINEERING EMPLOYERS



The DEGREE is ENGINEERING TECHNOLOGY;

The CAREER is ENGINEERING.©



Engineering Technology: The Value of Practice-Oriented Engineering Education

Engineering Technology (ET) education as a pathway to an ***engineering career***: What does it offer?

The Value to Students:

- An emphasis on practice-based learning via hands-on laboratories using state-of-the-art equipment
- Examining and solving "real-world" problems in the process of learning engineering
- Learning from faculty who are actively engaged with local, cutting-edge technology industries
- Internships opportunities with local industry via faculty connections
- Recognition of and accepting workforce experience as a component of the educational curriculum

The Value to Industry:

- Engineers that understand the key facets of problem solving in a "real world" environment
- Engineers familiar with the capabilities AND limitations of state-of-the-art technology
- Engineers that can identify and implement practical solutions using available technology
- ET programs can easily adapt curricula to support specialized needs of local industry
- ET faculty involvement with local industry opens opportunities for specialized university support to those industries

The Value to Academic Institutions:

- ET faculty involvement with local industry enhances the institution's reputation in the community
- ET faculty involvement with industry can lead to development support for the institution
- Coupling of applications-based ET faculty with design-based engineering faculty enhances and broadens research capabilities of the institution
- The ability to credit workforce experience increases enrollments by non-traditional students
- Articulations with community colleges and technical schools increases enrollments

Engineering Technology education as preparation for an *Engineering position*:

What does an Engineering Technology graduate offer you as a prospective employer?

Does the following describe your experience with your company's new engineering hires?

'It can take six months to a year before new engineering graduates become fully productive. One reason: lack of experience with equipment in common use in our business. The result – we spend considerable time training them in the use, capabilities, and limitations of the equipment.'

Companies hiring ET graduates into engineering roles typically see a different result. They routinely note that ET hires 'hit the ground running' when it comes to using modern technological equipment. Why? Because engineering technology programs have an intense focus on laboratory training, and the use of state-of-the-art technology is an inherent feature of those labs. The result – ET graduates arrive on day one having used equipment similar, and sometimes identical, to equipment at the company.

Another issue often mentioned with new engineering hires is:

'New engineering hires often arrive with in-depth understanding of the theoretical concepts and analytical methods of engineering but with little appreciation of the practical limitations involved in applying those methods and concepts.'

Again, companies hiring ET graduates into engineering roles see a somewhat different result. Two reasons. First, ET faculty are obligated to remain actively

sometimes students, in development projects in those industries. With respect to funding the results are twofold. There often are direct grants from industry to fund ET faculty support on company projects. Also, influential involvement by faculty and students on such projects enhances the image of the institution with those industries, which routinely leads to donations of development funds to support the institutions engineering and technical programs in general.

Engineering Technology as an enhancement to recruiting a diverse student population:

'Highly technical and analytical programs have an historic difficulty recruiting a diverse student population.'

Again as noted elsewhere, Engineering Technology programs, because of their significant focus on laboratory activities, are much better able to accommodate workplace experience, military training, and technical training from other venues within the program requirements. Thus, they provide a more viable avenue to a technical education for veterans, non-traditional adults, community college students, and adults seeking to change professions than do engineering programs. The result – increased enrollments and a more diverse student population.

If you would like more details about our Engineering Technology programs, please contact us (our information is below).



School Name
School address
School address, State, Zip

Telephone
Email address

Visit us on the web: ***website***

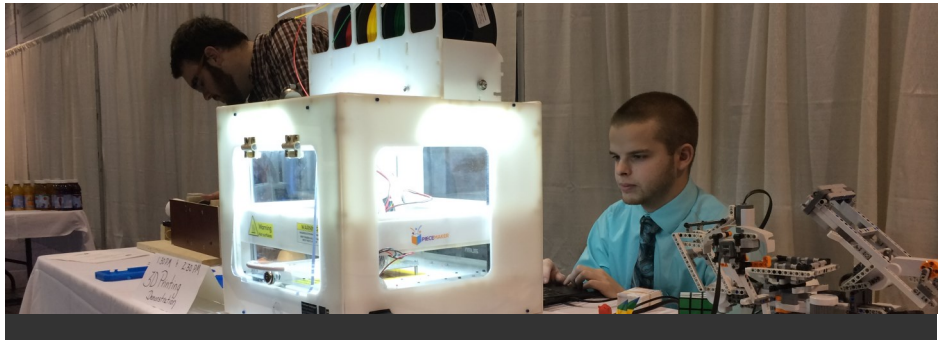
ENGINEERING TECHNOLOGY

FOR EDUCATIONAL INSTITUTIONS



The DEGREE is ENGINEERING TECHNOLOGY;

The CAREER is ENGINEERING.©



Engineering Technology: The Value of Practice-Oriented Engineering Education

Engineering Technology (ET) education as a pathway to an ***engineering career***: What does it offer?

The Value to Students:

- An emphasis on practice-based learning via hands-on laboratories using state-of-the-art equipment
- Examining and solving "real-world" problems in the process of learning engineering
- Learning from faculty who are actively engaged with local, cutting-edge technology industries
- Internships opportunities with local industry via faculty connections
- Recognition of and accepting workforce experience as a component of the educational curriculum

The Value to Industry:

- Engineers that understand the key facets of problem solving in a "real world" environment
- Engineers familiar with the capabilities AND limitations of state-of-the-art technology
- Engineers that can identify and implement practical solutions using available technology
- ET programs can easily adapt curricula to support specialized needs of local industry
- ET faculty involvement with local industry opens opportunities for specialized university support to those industries

The Value to Academic Institutions:

- ET faculty involvement with local industry enhances the institution's reputation in the community
- ET faculty involvement with industry can lead to development support for the institution
- Coupling of applications-based ET faculty with design-based engineering faculty enhances and broadens research capabilities of the institution
- The ability to credit workforce experience increases enrollments by non-traditional students
- Articulations with community colleges and technical schools increases enrollments

Engineering Technology education as it benefits the *Educational Institution*:

What do Engineering Technology programs offer you as an Institution Administrator?

Does the following describe your experience with new engineering students?

'It is not unusual for engineering programs to see attrition rates of 50% - 60% between the freshman and junior years of study.'

The failure to retain engineering students in the first two years is often related to the intimidation factor of the highly theoretical and analytical math and science courses that come in the early years. However, institutions with both engineering and engineering technology programs routinely see many students who leave engineering switch to engineering technology rather than leaving the school altogether. The result – higher student retention rates overall in technological programs.

Engineering Technology as an aid to grant and development funding:

'Engineering and Engineering Technology programs are among the most expensive programs for an institution to support. Thus, support from grants and donors is critical to their success.'

As noted elsewhere, an obligation of ET faculty is to stay actively connected with industry, and that connection often leads to direct involvement of faculty, and