



Department of Engineering Technology

Comparison of Engineering Technology and Engineering.....

Often, prospective students and parents ask what is engineering technology. The following discussion is a compilation of the work of many individuals and organizations and may help to answer that question.

The Bachelor of Science in Engineering Technology (BSET) is an applications-oriented program, providing career educational opportunities to students whose interests and aptitudes align with applied science and applications of engineering and technology. Coursework in engineering technology programs includes algebra, trigonometry, applied calculus and college level sciences; the level of math is not as in-depth as engineering programs and focuses on applications in the engineering disciplines. Engineering technology provides an educational background that is rich in real-world applications. Emphasis on applying current knowledge and practices to the solution of specific technical problems and standard design problems is a hallmark of engineering technology education at UNC Charlotte.

An engineering technology graduate is an implementer. She/he enjoys a career where the emphasis is on implementing, constructing, producing, installing, maintaining, and operating systems. Graduates of baccalaureate engineering technology programs enter all sectors of industry, government, and business in construction, product design / development, testing, technical operations, or technical services and sales. Graduates often get a 'hands-on' laboratory, testing, operations, construction, or "in-the-field" job. Placement of our graduates is very high; additionally, many BSET graduates pursue graduate study in engineering management, construction management, business administration, or other similar programs during their career.

Often, people ask what is the difference between engineering technology and engineering. Both Engineering Technology and Engineering are challenging programs; however, there are significant differences between the two programs. One size does not fit all as some students are attracted to engineering technology while others pursue engineering depending on their academic preparation and career interests. The following table highlights some of those differences. For more detailed information, visit the comparison discussion on our website.

<i>Engineering Technology (www.et.uncc.edu)</i>	<i>Engineering</i>
<i>An engineering technology (ET) graduate is an implementer.</i>	<i>An engineering graduate is an innovator.</i>
<i>Emphasis of curriculum is on applying current knowledge and practices to the solution of specific technical problems and standard design problems.</i>	<i>Emphasis of curriculum is on developing new methods of analysis and solutions for open-ended, complex and unique design problems.</i>
<i>New graduates would most likely enter industry in construction, product design, development, testing, technical operations, or technical services and sales.</i>	<i>New graduates would most likely aspire to an entry-level position in conceptual design, systems engineering, product research or development.</i>
<i>Graduates often pursue graduate study in engineering management, construction management, business administration, or similar programs.</i>	<i>Graduates are readily accepted to graduate school for advanced study in engineering.</i>
<i>Graduates are eligible for professional registration in <u>most</u> states with wide variation in licensing requirements.</i>	<i>Graduates are eligible for professional registration in <u>all</u> states through examination and documented experience.</i>
<i>More likely to get a 'hands-on' laboratory, testing, construction, or in-the-field job.</i>	<i>More likely to get a research, development, or design job.</i>
<i>Coursework includes algebra, trigonometry, applied calculus and college level sciences; level of math is not as in-depth as engineering programs while focusing on applications of the engineering disciplines in the freshmen and sophomore years of study.</i>	<i>Coursework includes multiple semesters of calculus and calculus-based theoretical university level science courses during the first two years followed by engineering science, analysis and design.</i>

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