

The Electrical Engineering Technology Program

Electrical Engineering is a broad and challenging field and the ODU Electrical Engineering Technology (EET) program offers two option areas that provide an excellent career foundation: Electrical Systems Technology and Computer Engineering Technology. These programs provide the broad skill set required for entry-level success and long term progression in these dynamic career areas.

The Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET) accredits the Electrical Engineering Technology program, leading to the Bachelor of Science in Engineering Technology. Graduates of TAC of ABET accredited programs are eligible to take the Fundamentals of Engineering (FE) examination in Virginia and in most states. This exam is the first step to obtaining a professional engineer (PE) license.

Students in Electrical Engineering Technology work with faculty possessing a wealth of industrial experience and this is shared in the classroom. A senior capstone design project allows students to apply the practical knowledge they have gained. Students learn by developing designs and projects that are often presented to and funded by industry to solve real-world problems.

Degree Completion Options

Engineering Technology students can pursue their studies on the main campus in Norfolk in a traditional four-year program of

study. Alternatively, many students complete an Associate in Applied Science (AAS) degree in a community college and finish the last two years of baccalaureate study either on campus or through the TELETECHNET System.



For career and family bound students who are not able to come to the main campus to complete their degree, the ODU TELETECHNET system, a national leader in distance learning, provides an alternative. Through this system, courses are delivered to sites at industry locations and community colleges in Virginia and across the nation and directly to students at home or in the work place. There are three primary course delivery methods:

- Satellite links allow students to participate in live classes by television and two-way voice connections.
- Streaming video allows students on high-speed Internet connections at home or at work to participate in live or receive archived classes.
- CD-ROM instruction is used to provide supporting information related to lectures delivered by satellite or streaming video.

When students miss class due to travel or business, these methods allow taped or digitized copies of class to be available at a later time. In all cases, distance students maintain close interaction with faculty by a number of means including telephone, email, and Internet bulletin boards / study sessions.

Using the TELETECHNET System, it is possible for distance students to complete the technical content of the BS in ET in three years from AAS completion depending on the semester load taken.

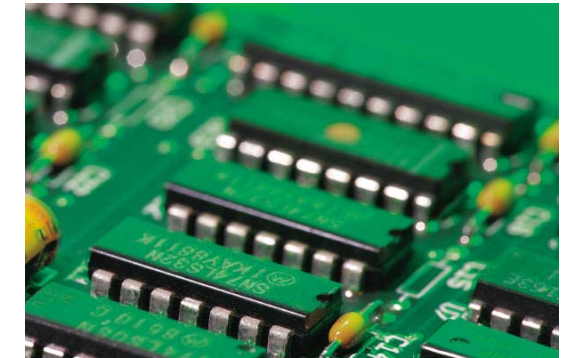
AAS Transfer Credits and Articulation

There are a number of articulation agreements that integrate the BS in Engineering Technology options with a range of AAS degrees. Typically about half (55-60) of the credits toward a baccalaureate degree can be earned through completion of approved AAS degree programs at a community college. Consult your local community college for details on current transfer / articulation agreements related to your location and program. Students should also consult closely with the advisors in these AAS programs to select the correct transfer courses in areas such as mathematics, science, and general education.

Option in Electrical Systems Technology

Careers involving design, analysis and support of electrical / electronic systems require a complex combination of Engineering and Technology knowledge and skills. Many of these skills focus on the hands-on application of technical expertise

involving instrumentation and measurement equipment and computer based control and communications systems. The primary objective of the Electrical Systems option is to provide an applied technical foundation that will enable graduates to excel in this dynamic career area.



Graduates are qualified for positions in electronic and electrical product design and development, electronic and electrical system operation and maintenance, field operations, and various other technical functions. Students choosing the Electrical Systems option will take courses in electrical power and machinery (including laboratory), linear electronics (including laboratory), and transmission networks. Students will also take several core courses in the areas of computer-aided analysis and design, digital controls and microprocessors to emphasize the interdisciplinary approach to engineering technology.

The remainder of the technical program consists of senior elective courses in such areas as communications, high frequency and microwave technology, control systems, microcomputer-based design, local area networks, and control systems.

Option in Computer Engineering Technology

The second option area in the Electrical Engineering Technology program meets the needs of students who are interested in the design and operation of computer and web based systems. The Computer Engineering Technology (ComET) option provides the skills for career success in designing, building, and installing computer systems of all descriptions including hardware, software, and networking / web operations.

Students begin with a core that provides a basis in computer-oriented hardware including electronics, digital systems, and microprocessors. This hardware core is integrated with a series of courses offered by the Department of Computer Science including programming and problem solving, data structures, and software engineering. As a result, students completing the ComET option will also receive a minor in Computer Science. Graduates find employment as network managers, computer system engineers, and network designers.



Graduate Degree Options

Engineering technology graduates have a number of graduate study alternatives. Many enroll in the ODU Masters in Engineering Management program through TELETECHNET to further their education. Others pursue graduate degrees in an engineering or business field. ComET graduates may also pursue the MS in Computer Science.

Additional Information

If you are interested in a program where people and technology come together, the Department of Engineering Technology at Old Dominion University may be the place for you. For further information:

- Visit the ODU distance learning web site: <http://www.odu.edu/home/distance.html>.
- Discuss program articulation with your local community college.
- Visit the Department of Engineering Technology web site for additional information and course schedules.
- Contact the program director and find out more about the options.

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The following list describes the required courses at the Junior and Senior level for the EET options.

Junior / Senior Courses and Electives

Electrical Systems Core Courses

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| EET 300 Advanced Circuit Analysis |
| EET 305 Advanced Technical Analysis |
| EET 310 Digital Electronics |
| EET 315W Digital Electronics Lab |
| EET 320 Microprocessors & Microcontrollers |
| EET 325 Microprocessor Lab |
| EET 330 Linear Electronics |
| EET 335 Linear Electronics Lab |
| EET 340 Transmission Networks |
| EET 360 Electrical Power & Machinery |
| EET 365W Electrical Power & Machinery Lab |
| EET 480W Senior Project |

Electrical Systems Electives

Additional electives in the areas of communications, microwaves, computers and networks, industrial controls, and power systems should be selected.

ComET Core Courses

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| EET 300 Advanced Circuit Analysis |
| EET 305 Advanced Technical Analysis |
| EET 310 Digital Electronics |
| EET 315W Digital Electronics Lab |
| EET 320 Microprocessors & Microcontrollers |
| EET 325 Microprocessor Lab |
| EET 330 Linear Electronics |
| EET 335 Linear Electronics Lab |
| EET 480W Senior Project |
| CS 333 Object oriented Programming |
| CS 361 Advanced Data Structures |
| CS 312 Internet Concepts |
| CS 451 Software Engineering Survey |

ComET Electives

Additional electives in the areas of computer science, computer hardware and networks, and industrial automation should be selected.



ELECTRICAL ENGINEERING TECHNOLOGY

Focus on Electrical Systems Technology and Computer Engineering Technology

