

Bachelor of Science in Electrical Engineering

About the Program

The electrical engineering curriculum places emphasis on a broad liberal education base, a strong background in mathematics and basic sciences, and a logical sequence of electrical and computer engineering courses that provide the breadth and depth necessary for continuous professional growth in today's technological society.

By the end of the junior year, the electrical engineering student normally selects an area of professional emphasis such as computer engineering, control systems, communication systems, electronics, or power systems. Integral to the program is the design component that develops the student's ability to address practical engineering problems. Engineering design problems and concepts are included throughout the curriculum and the experience is capped by a mandatory two-semester senior design course in which the students undertake significant design projects.

A Partnership in Education...

The cooperative 2+2 program formed by Trident Technical College (TTC) and The Citadel permits students to complete their associate degree at TTC and then take courses in the major at The Citadel, culminating in a bachelor's degree from The Citadel.

Getting Started

The following steps will get you on your way to earning your associate degree from TTC and bachelor's degree from The Citadel:

- Submit TTC's online application along with the nonrefundable application fee.
- Send a copy of your high school transcript, diploma or GED to TTC. If you want to transfer credits from other colleges, submit official transcripts.
- Provide qualifying scores on the SAT, ACT or TTC's placement test.
- Visit TTC's Orientation Center for assignment to a 2+2 academic advisor.
- Complete specified courses at TTC with a minimum cumulative GPA of 2.0.
- Submit an online undergraduate application to The Citadel Graduate College.
- Submit an official transcript of all work completed directly from each accredited college or university.
- Students may begin taking courses at The Citadel at any time as long as prerequisites have been met and an official TTC transcript has been provided.

Frequently Asked Questions

How do I know what to sign up for while I'm at TTC?

You will work closely with your 2+2 advisor during your time at TTC to plan your schedule so that it fits your needs and meets the requirements at The Citadel.

Which college is on my diploma, TTC or The Citadel?

After completing the entire 2+2 curriculum, you will receive two diplomas: one from TTC showing your associate degree and one from The Citadel showing your Bachelor of Science degree in Electrical Engineering.

When and where are classes at TTC held?

Most of the TTC classes in the program are offered day and evening at the Main Campus (Rivers Avenue). Some classes may be taken at TTC's Palmer Campus (Downtown). Many general education courses are available online or on videotape, and some are offered on the weekends. Visit www.tridenttech.edu for directions.

When and where are classes at The Citadel held?

Most of the classes at The Citadel are held two nights per week in a civilian environment. Visit www.citadel.edu for directions.



TRIDENT TECHNICAL COLLEGE

www.tridenttech.edu

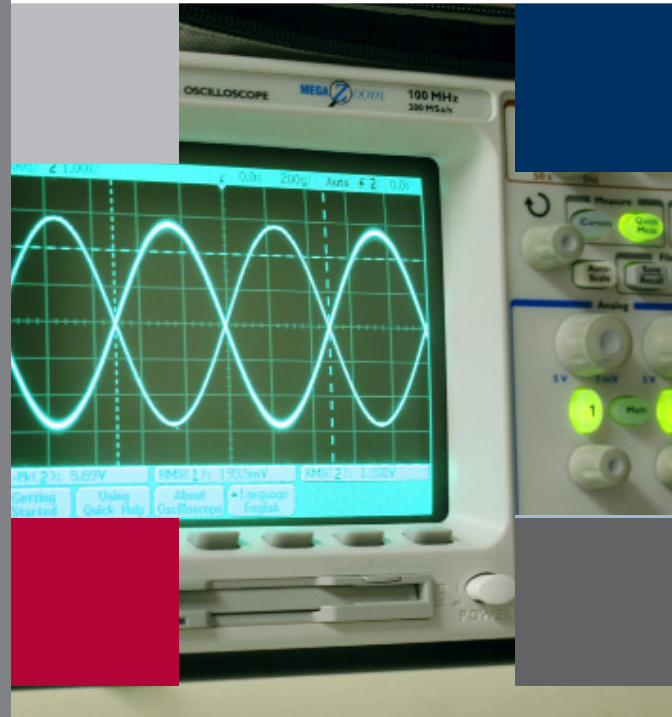
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www.citadel.edu/eveningundergraduatestudies

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A 2+2 program brought to you by:



The 2 + 2 program in Electrical Engineering consists of 71 hours of general education and engineering courses at TTC plus 58 credit hours of upper division courses at The Citadel.

If you have credits from another institution, they will be evaluated according to The Citadel policy.



Students who complete each 2+2 program course at TTC with a grade of C or higher and who maintain a cumulative GPA of at least 2.0 are eligible to apply for admission to The Citadel's Electrical Engineering evening program. This application must be accompanied by a letter of transmittal from TTC's 2+2 advisor. Formal application must be made through The Citadel Graduate College.

Upon completion of the program at TTC, the student will have earned an Associate in Science degree as well as the appropriate Engineering Transfer certificate.

Courses Taken at Trident Technical College

Electrical Engineering Courses (18 hours)

ECE 201 Electrical and Computer Engineering Seminar - 1
ECE 205 Electrical and Computer Lab I - 3
ECE 221 Introduction to Electrical Engineering I - 3
ECE 222 Introduction to Electrical Engineering II - 3
EGR 270 Introduction to Engineering - 3
EGR 273 Problem Solving for Engineers - 2
EGR 275 Introduction to Engineering/Computer Graphics - 3

Humanities/Social Sciences Courses (21 hours)

ENG 101 English Composition I - 3
ENG 102 English Composition II - 3
ENG 205 English Literature I - 3
ENG 206 English Literature II - 3
HIS 101 Western Civilization to 1689 - 3
HIS 102 Western Civilization Post 1689 - 3
PSY 201 General Psychology - 3

Math/Science Courses (32 hours)

CHM 110 College Chemistry I - 4
CHM 111 College Chemistry II - 4
MAT 140 Analytic Geometry and Calculus I - 4
MAT 141 Analytic Geometry and Calculus II - 4
MAT 240 Analytic Geometry and Calculus III - 4
MAT 242 Differential Equations - 4
PHY 221 University Physics I - 4
PHY 222 University Physics II - 4

Total Credit Hours at TTC: 71

Courses Taken at The Citadel

Electrical Engineering Courses (32 hours)

ELEC 302 Electrical Machinery Laboratory - 1
ELEC 306 Electronics I - 3
ELEC 309 Signals and Systems - 3
ELEC 311 Digital Logic and Circuits - 3
ELEC 312 Systems I - 3
ELEC 313 Electronics Laboratory - 1
ELEC 316 Electromechanical Energy Conversion - 3
ELEC 318 Electromagnetic Fields - 3
ELEC 330 Digital Systems Engineering - 3
ELEC 412 Applied Probability and Statistics for Engineers - 3
ELEC 421 Design I - 3
ELEC 422 Design II - 3

Electrical Engineering Electives (15 hours) - Choose five courses from the following list:

ELEC 307 Nuclear Engineering - 3
ELEC 401 Electronics II - 3
ELEC 403 Electric Power Systems - 3
ELEC 405 Electrical Measurements - 2
ELEC 415 Electrical Measurements Laboratory - 1
ELEC 407 Systems II - 3
ELEC 413 Advanced Topics in Electrical Engineering - 3
ELEC 414 System Simulation - 3
ELEC 416 Communications Engineering - 3
ELEC 418 Advanced Digital Systems - 3
ELEC 419 Computer Network Architecture - 3
ELEC 423 Digital Signal Processing - 3
ELEC 424 Solid-State Devices - 3
ELEC 425 Interference Control in Electronics - 3
ELEC 426 Antennas and Propagation - 3
CSCI 420 Software Engineering - 3

Note: ELEC 405 and ELEC 415 must be taken together.

Technical Elective (3 hours) - Choose **one** course from the following list:

PHYS 308 Optics - 3
PHYS 410 Thermodynamics - 3
CIVL 310 Statics and Mechanics of Materials for Non-Civil Engineers - 3
CSCI 223 Data Structures - 3
CIVL 411 Engineering Management - 3
MATH 381 Deterministic Methods of Operational Research - 3
MATH 470 Mathematical Models and Applications - 3

Math/Civil Engineering Courses (5 hours)

MATH 335 Applied Mathematics II - 3
CIVL 314 Engineering Administration - 2

Humanities Elective (3 hours) - To be selected from an approved list of courses in the humanities or social sciences.

Total Credit Hours at The Citadel: 58

