GUIDED PATHWAY: COMPUTER ENGINEERING

ENGINEERING, TECHNOLOGY, MATHEMATICS and SCIENCES CAREER PATH

For more information, visit the Dallas College Engineering webpage [www.dcccd.edu/engineering] and your academic advisor at your campus.

Computer engineers make current devices we use for work and entertainment faster, smaller, cheaper, smarter, and safer. They also develop systems needed to protect and operate the United States' critical infrastructures—such as the Internet and smart power grid—so its day-to-day services are not interrupted. An Associate of Science degree in this pathway prepares you to transfer to a university to earn a bachelor's degree in Computer Engineering. From robotics to wireless networks, and operating systems to aircraft design, there is a specialization for any interest. Example employers for computer engineers include research laboratories, technology manufacturers, semiconductor companies, and digital consulting firms.

This is an example course sequence for students interested in pursuing Computer Engineering. It does not represent a contract, nor does it guarantee course availability. Following this pathway will help you earn an A.S. degree, which will increase your chances of transfer to bachelor's-level programs. Students must earn at least 25% of the credit hours (15 hours) required for graduation through instruction by Dallas College. Courses that complete the degree are noted below. See catalog for official degree requirements.

Visit www.dcccd.edu/transfer and select "Transfer from Dallas College," then click on a university to view more information about transferring to that institution. Speak with your academic advisor to choose courses that will help you to transfer to a specific university.

Catalog Year	2021-2022 You may use this pathway if you entered Dallas College on or before this date.
Degree Type	Associate of Science
GPA Requirement	Student must earn a GPA of 2.0 or higher
TSI	Must be Complete

SEMESTER-BY-SEMESTER MAP FOR FULL-TIME STUDENTS

All plans can be modified to fit the needs of part-time students. This is not an official program of study. See catalog for official degree requirements.

DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS

PATHWAY REQUIREMENTS — Total Hours: 10

The following are prerequisite courses for MATH 2413.
MATH 1314
MATH 1316
MATH 2412

CONSIDER COMPLETING BEFORE TRANSFER

ENGR 2306 *OR*
ENGR 2305

SEMESTER 1 — Total Hours: 16

ENGL 1301 – Composition I *This is a Core course. Must earn a grade of "C" or higher.*
HIST 1301 – United States History I *This is a Core course.*
MATH 2413 – Calculus I* *This is a Core course. Must earn a grade of "C" or higher. Prerequisites of MATH 1314, MATH 1316, MATH 2412, prior to enrolling in the course.*
EDUC 1300 – Learning Framework *All college students with fewer than 12 semester credit hours of successful college credit (grade of "C" or above) must take a student success course in the first semester.*
CHOOSE ONE: ARTS 1303 – Art History I* *This is a Core course.*
HUMA 1315 – Fine Arts Appreciation* *This is a Core course.* ***OR***

MUSI 1306 – Music Appreciation* *This is a Core course.*

*There are several options to fulfill this requirement. See your academic advisor for a specific list.

SEMESTER 1 ACTION ITEMS

1. Meet with your advisor to confirm your academic and career goals by the end of the semester.
2. Meet with a career advisor/coach to research your career options with a Computer Engineering degree.

SEMESTER 2 — Total Hours: 13-14

ENGL 1302 – Composition II *This is a Core course.*
MATH 2414 – Calculus II*
CHOOSE ONE: **COSC 1436** – Programming Fundamentals I* ***OR***
MATH 2305 – Discrete Mathematics*
CHOOSE ONE: **HIST 1302** – United States History II* *This is a Core course.* ***OR***
HIST 2301 – Texas History* *This is a Core course.*

*There are several options to fulfill this requirement. See your academic advisor for a specific list. Elective courses should be selected according to the intended university to which you will transfer. See your academic advisor for assistance with course selection.

SEMESTER 2 ACTION ITEMS

1. Meet with your advisor to request an official program of study audit and confirm or update your academic/career pathway and program of study.
2. Ask about transfer advising to discuss options to pursue the bachelor's degree.

SEMESTER 3 — Total Hours: 7

GOVT 2305 – Federal Government *This is a Core course.*
PHYS 2425 – University Physics I* *This is a Core course.*

*There are several options to fulfill this requirement. See your academic advisor for a specific list.

SEMESTER 3 ACTION ITEMS

1. Begin applying to your top choice universities.

SEMESTER 4 — Total Hours: 13-15

GOVT 2306 – Texas Government *This is a Core course.*
PHYS 2426 – University Physics II* *This is a Core course.*
COSC 1437 – Programming Fundamentals II*
CHOOSE ONE: **ENGR 1201** – Introduction to Engineering*
MATH 2415 – Calculus III* ***OR***
COSC 2425 – Computer Organization*

*There are several options to fulfill this requirement. See your academic advisor for a specific list. Elective courses should be selected according to the intended university to which you will transfer. See your academic advisor for assistance with course selection.

SEMESTER 4 ACTION ITEMS

1. Begin applying for Financial Aid and Scholarships. You can start the FAFSA in October for the next academic year. *(i.e., in October 2021, you can complete the FAFSA if you plan to register for classes at a university Fall 2022)*
2. Check with your advisor for important deadlines and dates.

SEMESTER 5 — Total Hours: 14

COSC 2436 – Programming Fundamentals III*
ECON 2301 – Principles of Macroeconomics* *This is a Core course.*
PHED 1164 – Introduction to Physical Fitness and Wellness* *This is a Core course.*
CHOOSE ONE: **ENGL 2331** – World Literature* *This is a Core course.*
PHIL 1301 – Introduction to Philosophy* *This is a Core course.*
PHIL 1306 – Introduction to Ethics* *This is a Core course.*
CHOOSE ONE*:** **SPCH 1321** – Business and Professional Communication* *This is a Core course.* ***OR
SPCH 1315 – Public Speaking* *This is a Core course.*

*There are several options to fulfill this requirement. See your academic advisor for a specific list. Elective courses should be selected according to the intended university to which you will transfer. See your academic advisor for assistance with course selection.

SEMESTER 5 ACTION ITEMS

1. After reviewing your degree plan and program of study, meet with your advisor to apply for the Associate of Science degree in Computer Engineering.
2. Sign up for commencement.

3. Request final transcripts to be sent to the college or university to where you will transfer.
4. Join the Alumni Network!

PATHWAY TOTAL: 63-66 SEMESTER CREDIT HOURS