

# GUIDED PATHWAY: PRE-MECHANICAL ENGINEERING

ENGINEERING, TECHNOLOGY, MATHEMATICS and SCIENCES CAREER PATH



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

The Pre-Mechanical Engineering pathway prepares you to enter a bachelor's degree program in Mechanical Engineering. An Associate of Science (A.S.) degree in this pathway prepares you to transfer to a university to earn a bachelor's degree that opens the door to a career as a Mechanical Engineer, Automotive Engineer, and Robotic Engineer. You may need to complete additional courses, beyond those listed in this pathway, to be accepted into the Pre-Mechanical Engineering program at a Participating University. Speak with your academic advisor for more information and a list of additional courses.

This is an example course sequence for students interested in pursuing Pre-Mechanical 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 who transfer to one of the participating universities will **not** be core complete upon completion of this degree. This degree **does not** include all core course requirements. 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 <u>official degree requirements</u>.

Visit <a href="www.dcccd.edu/transfer">www.dcccd.edu/transfer</a> 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	2020-2021	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	
<u>TSI</u>	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 <u>official degree requirements</u>.

**DEGREE MINIMUM: 60 SEMESTER CREDIT HOURS** 

## PATHWAY REQUIREMENTS

The following are prerequisite courses for MATH 2413.

MATH 1314 MATH 1316

MATH 2412

# SEMESTER 1

Total Hours: 13

Total Hours: 10

**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, and MATH 2412, prior to enrolling in the course.

CHOOSE ONE: SPCH 1311 – Introduction to Speech Communication This is a Core course.

SPCH 1315 - Public Speaking This is a Core course. OR

**SPCH 1321** – Business and Professional Communication *This is a Core course.* 

## SEMESTER 1 ACTION ITEMS

- 1. Meet with your advisor to confirm your academic and career goals by the end of the semester.
- 2. At the end of the semester, begin researching colleges and universities where you would want to major in Mechanical Engineering.

Meet with a career advisor/coach to research your career options with a Mechanical Engineering degree.

SEMESTER 2 Total Hours: 14

ENGL 1302 - Composition II This is a Core course.

HIST 1302 - United States History II\* This is a Core course.

PHYS 2425 - University Physics I This is a Core course.

MATH 2414 - Calculus II

#### SEMESTER 2 ACTION ITEMS

- 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: 6

LANGUAGE, PHILOSOPHY, and CULTURE ELECTIVE\* This is a Core course.

**GOVT 2305** – Federal Government This is a Core course.

#### SEMESTER 3 ACTION ITEMS

1. Begin applying to your top choice universities.

SEMESTER 4 Total Hours: 13

GOVT 2306 - Texas Government This is a Core course.

**ECON 2301** – Principles of Macroeconomics *This is a Core course.* 

PHYS 2426 - University Physics II This is a Core course.

**ENGR 2301** – Engineering Mechanics - Statics

#### 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)
- Check with your advisor for important deadlines and dates.

SEMESTER 5 Total Hours: 14

**ENGR 2302** – Engineering Mechanics - Dynamics

ENGR 2305 – Electrical Circuits I Before registering, you must complete MATH 2414 and PHYS 2426 and be concurrently enrolled in MATH 2420.

**ENGR 2105** – Electrical Circuits I Laboratory *Must be concurrently enrolled in ENGR* 2305.

MATH 2415 - Calculus III

**CHOOSE ONE:** ARTS 1301 – Art Appreciation\* This is a Core course.

**DANC 2303** – Dance Appreciation\* This is a Core course.

**DRAM 1310** – Theater Appreciation\* This is a Core course.

**HUMA 1315** – Fine Arts Appreciation\* *This is a Core course.* 

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

#### 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 Pre-Mechanical 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: 60 SEMESTER CREDIT HOURS

<sup>\*</sup> There are several options to fulfill this requirement. See your academic advisor for a specific list.

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