

ENGINEERING, ASSOCIATE IN SCIENCE (EGR)

Effective: Fall 2016

The Engineering program is a two-year preparatory curriculum for students who plan to continue their education at a four-year institution and complete their major in an engineering science field.

Program Outcomes

Upon successful completion of this program, students should be able to:

- Demonstrate an understanding of key concepts in the physical, mathematical, and computational sciences.
- Apply mathematical and scientific concepts and principles to engineering problems.
- Present technical information in written or graphic form.
- Demonstrate an understanding of the academic and career aspects of various disciplines within engineering or engineering technology, select a particular discipline, and develop an academic plan consistent with the chosen discipline.

Curriculum

The College Transfer Office (<https://www.dccc.edu/admissions-financial-aid/transfer/transfer-office/>) is set up to help Delaware County Community College students transfer to four-year colleges and universities. If you are planning to transfer, you are strongly encouraged to meet with a transfer advisor within your first two semesters (or before you reach 30 transferable college credits from all institutions attended).

First Semester		Hours
ENG 100	English Composition I	3
MAT 160	Calculus I	4
CHE 110	General Chemistry I	4
EGR 150	Engineering Topics	1
CS 101	Introduction to Computer Science	3
Hours		15
Second Semester		Hours
ENG 112	English Composition II: Writing About Literature	3
MAT 161	Calculus II	4
CHE 111	General Chemistry II	4
PHY 131	University Physics I	4
Hours		15
Third Semester		Hours
MAT 260	Calculus III	4
PHY 132	University Physics II	4
Any transferable Diversity and Social Justice designated Social Science course		3
Any transferable Global Understanding designated Social Science course		3
Engineering Curriculum Elective		3-5
Hours		17-19
Fourth Semester		Hours
MAT 261	Differential Equations	3
COMM 100 or COMM 111	Interpersonal Communication or Public Speaking	3
Engineering Curriculum Electives		6-9
Humanities Elective		3
Hours		15-18
Total Hours		62-67

Notes

Diversity and Social Justice (DJ) designated courses (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#DJ_Course_List).

Global Understanding (GU) designated courses (https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#GU_Course_List).

Humanities Elective - Transfer Program

This list does not indicate College Academic Learning Goal designation (<https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/>). Refer to your program curriculum for more information.

For college transfer curricula¹:

Code	Title	Hours
Courses listed under subjects:		
ART 100	Art and Child Development (or above)	3
COMM 100	Interpersonal Communication (or above)	3
ENG 112	English Composition II: Writing About Literature (or above)	3
HUM 100	Introduction to Visual Arts (or above)	3
MUS 101	Fundamentals of Music (or above)	3
PHI 100	Introduction to Philosophy (or above)	3
<i>Foreign Languages:</i>		
FRE 101	Elementary French I (or above)	3
GER 101	(or above)	3
ITA 101	(or above)	3
SPA 101	Elementary Spanish I (or above)	3

¹ The elective courses listed for transfer curricula are generally transferable to most institutions. However, depending on the program at the transfer institution, the courses may only be accepted as free electives. Be sure to meet with a transfer advisor when planning to transfer.

Engineering Electives

Students must take a minimum of one of the following engineering courses as part of the Engineering Curriculum Electives:

Code	Title	Hours
EGR 200	Engineering Statics	3
EGR 201	Engineering Dynamics	3
EGR 210	Engineering Circuits	4
EGR 220	Engineering Thermodynamics	3

Students must select two additional Engineering Curriculum Electives.

Suggested electives by transfer discipline are listed below:

For chemical engineering:

Code	Title	Hours
CHE 200	Organic Chemistry I	5
CHE 201	Organic Chemistry II	5
EGR 200	Engineering Statics	3
EGR 201	Engineering Dynamics	3

EGR 210	Engineering Circuits	4
EGR 220	Engineering Thermodynamics	3

For civil engineering:

Code	Title	Hours
EGR 100	Engineering Graphics	3
EGR 200	Engineering Statics	3
EGR 201	Engineering Dynamics	3
EGR 220	Engineering Thermodynamics	3

For electrical/computer engineering:

Code	Title	Hours
EGR 200	Engineering Statics	3
EGR 201	Engineering Dynamics	3
EGR 210	Engineering Circuits	4
EGR 220	Engineering Thermodynamics	3
CS 110	Introduction to C++	3
CS 210	Object Oriented C++	3
MAT 200	Linear Algebra	3

For mechanical engineering:

Code	Title	Hours
EGR 100	Engineering Graphics	3
EGR 200	Engineering Statics	3
EGR 201	Engineering Dynamics	3
EGR 210	Engineering Circuits	4
EGR 220	Engineering Thermodynamics	3
MAT 200	Linear Algebra	3

Students are strongly encouraged to consult with both the DCCC Transfer Office as well as their academic advisor prior to selecting Engineering Curriculum Electives.

Career

Career Information for this Program

Engineering (Associate in Science)

Career Coach

Browse or search for careers and we will give you relevant data on wages, employment, and the training you need.

DCCC Career and Counseling Services

Faculty and staff in Career & Counseling Services are eager to help you become successful in college and in life. We offer services to assist you at any point in your academic journey and we tailor our approach to meet your individual needs.