

# ENGINEERING, ASSOCIATE IN SCIENCE (EGR)

## Part-Time Academic Plan

| Course                                                                         | Title                                             | Hours        |
|--------------------------------------------------------------------------------|---------------------------------------------------|--------------|
| <b>First Semester</b>                                                          |                                                   |              |
| ENG 100                                                                        | English Composition I                             | 3            |
| MAT 160                                                                        | Calculus I                                        | 4            |
| EGR 150                                                                        | Engineering Topics                                | 1            |
| <b>Hours</b>                                                                   |                                                   | <b>8</b>     |
| <b>Second Semester</b>                                                         |                                                   |              |
| CHE 110                                                                        | General Chemistry I                               | 4            |
| CS 101                                                                         | Introduction to Computer Science                  | 3            |
| <b>Hours</b>                                                                   |                                                   | <b>7</b>     |
| <b>Third Semester</b>                                                          |                                                   |              |
| MAT 161                                                                        | Calculus II                                       | 4            |
| CHE 111                                                                        | General Chemistry II                              | 4            |
| <b>Hours</b>                                                                   |                                                   | <b>8</b>     |
| <b>Fourth Semester</b>                                                         |                                                   |              |
| MAT 260                                                                        | Calculus III                                      | 4            |
| PHY 131                                                                        | University Physics I                              | 4            |
| <b>Hours</b>                                                                   |                                                   | <b>8</b>     |
| <b>Fifth Semester</b>                                                          |                                                   |              |
| PHY 132                                                                        | University Physics II                             | 4            |
| ENG 112                                                                        | English Composition II: Writing About Literature  | 3            |
| Any transferable Diversity and Social Justice designated Social Science course |                                                   | 3            |
| <b>Hours</b>                                                                   |                                                   | <b>10</b>    |
| <b>Sixth Semester</b>                                                          |                                                   |              |
| Any transferable Global Understanding designated Social Science course         |                                                   | 3            |
| Engineering Curriculum Elective                                                |                                                   | 3-5          |
| <b>Hours</b>                                                                   |                                                   | <b>6-8</b>   |
| <b>Seventh Semester</b>                                                        |                                                   |              |
| MAT 261                                                                        | Differential Equations                            | 3            |
| COMM 100<br>or COMM 111                                                        | Interpersonal Communication<br>or Public Speaking | 3            |
| Engineering Curriculum Elective                                                |                                                   | 3            |
| <b>Hours</b>                                                                   |                                                   | <b>9</b>     |
| <b>Eighth Semester</b>                                                         |                                                   |              |
| Engineering Curriculum Elective                                                |                                                   | 3-6          |
| Arts & Humanities Elective                                                     |                                                   | 3            |
| <b>Hours</b>                                                                   |                                                   | <b>6-9</b>   |
| <b>Total Hours</b>                                                             |                                                   | <b>62-67</b> |

**Diversity and Social Justice (DJ) designated courses** ([https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#DJ\\_Course\\_List](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](https://catalog.dccc.edu/academic-programs/college-academic-learning-goals/#GU_Course_List)).

### Arts and Humanities Electives

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.

The subject areas listed are generally transferable to most institutions. However, transferability is always determined by the college or university you are planning to transfer to. Be sure to meet with a transfer advisor before making your course selections.

- ART - Art (<https://catalog.dccc.edu/courses/course-descriptions/art/>)
- COMM - Communication Studies (<https://catalog.dccc.edu/courses/course-descriptions/comm/>)
- DRA - Drama (<https://catalog.dccc.edu/courses/course-descriptions/dra/>)
- ENG - English (<https://catalog.dccc.edu/courses/course-descriptions/eng/>) (ENG 115 and above)

- HUM - Humanities (<https://catalog.dccc.edu/courses/course-descriptions/hum/>)
- MUS - Music (<https://catalog.dccc.edu/courses/course-descriptions/mus/>)
- PHI - Philosophy (<https://catalog.dccc.edu/courses/course-descriptions/phi/>)

Some programs specify or recommend a Foreign Language.

| Code                      | Title                   | Hours |
|---------------------------|-------------------------|-------|
| <i>Foreign Languages:</i> |                         |       |
| FRE 101                   | Elementary French I     |       |
| FRE 102                   | Elementary French II    |       |
| FRE 111                   | Intermediate French I   |       |
| FRE 112                   | Intermediate French II  |       |
| SPA 101                   | Elementary Spanish I    |       |
| SPA 102                   | Elementary Spanish II   |       |
| SPA 201                   | Intermediate Spanish I  |       |
| SPA 202                   | Intermediate Spanish II |       |

## 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:**

| <b>Code</b> | <b>Title</b>               | <b>Hours</b> |
|-------------|----------------------------|--------------|
| 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.