

College Transfer Associate in Engineering (A. E.) Degree

The Associate in Engineering (AE) degree is designed for students who plan to transfer to 4-year colleges and universities to major in Engineering. The degree transfers as a block to North Carolina public universities and other institutions which participate in the Comprehensive Articulation Agreement (CAA). Electives should be selected based on the intended major. For specific requirements, consult with an academic advisor in the Central Piedmont Natural Sciences Division, a Central Piedmont Transfer Advisor, or the catalog for the senior four-year school to which transfer is intended. Students are encouraged to take the Accuplacer College Level Mathematics Test to be able to start with Calculus I in the first semester of study.

For the most current information on the Associate in Engineering degree, visit the Associate in Engineering degree page.

College Transfer Associate in Engineering Degree (A10500)

Contact Information

The Associate in Engineering Degree is in the Engineering Technology Division. For additional information, visit the Associate in Engineering Degree website or the Program Chair at 704.330.6204

Program Requirements

General Education Requirements

| | | |
|------------------------------|---|-----|
| ENG 111 | Writing and Inquiry | 3.0 |
| ENG 112 | Writing and Research in the Disciplines | 3.0 |
| COM 231 | Public Speaking | 3.0 |
| ENG 231 | American Literature I | 3.0 |
| or ENG 232 | American Literature II | |
| ECO 251 | Principles of Microeconomics | 3.0 |
| Select one of the following: | | 3.0 |
| HIS 111 | World Civilizations I | |
| HIS 112 | World Civilizations II | |
| HIS 131 | American History I | |
| HIS 132 | American History II | |
| POL 120 | American Government | |
| PSY 150 | General Psychology | |
| SOC 210 | Introduction to Sociology | |
| MAT 271 | Calculus I | 4.0 |
| MAT 272 | Calculus II | 4.0 |
| MAT 273 | Calculus III | 4.0 |
| CHM 151 | General Chemistry I | 4.0 |
| PHY 251 | General Physics I | 4.0 |
| PHY 252 | General Physics II | 4.0 |
| BIO 111 | General Biology I | 4.0 |
| or CHM 152 | General Chemistry II | |

Other Requirements:

| | | |
|---------|--------------------------|-----|
| ACA 122 | College Transfer Success | 1.0 |
|---------|--------------------------|-----|

| | | |
|--------------------------------------|---------------------------------|-----|
| EGR 150 | Introduction to Engineering | 2.0 |
| MAT 280 | Linear Algebra | 3.0 |
| MAT 285 | Differential Equations | 3.0 |
| Select 5 credits from the following: | | 5.0 |
| CSC 134 | C++ Programming | |
| DFT 170 | Engineering Graphics | |
| EGR 212 | Logic System Design I | |
| EGR 220 | Engineering Statics | |
| EGR 228 | Introduction to Solid Mechanics | |

Total Credits **60**

The following are suggested course plans if you would like to complete the Associate in Engineering and transfer to a four-year school for a variety of majors. These plans are based on the program requirements of the 2024-2025 catalog. These are only recommendations — you may take courses in another order upon consultation with your advisor. These plans are based on you starting with college-level math and English courses, starting your program in the fall, and attending full-time. You can also follow these sequences if you attend part-time. Speak with an advisor about your plans and note that recommendations may vary depending on your intended transfer institution.

Course Sequences by Major:

Civil Engineering Transfer Pathway

| Term I | | Credits |
|---------------------------|---|-----------|
| ENG 111 | Writing and Inquiry | 3.0 |
| ACA 122 | College Transfer Success | 1.0 |
| EGR 150 | Introduction to Engineering | 2.0 |
| MAT 171 | Precalculus Algebra | 4.0 |
| ECO 251 | Principles of Microeconomics | 3.0 |
| Credits | | 13 |
| Term II | | Credits |
| ENG 112 | Writing and Research in the Disciplines | 3.0 |
| COM 231 | Public Speaking | 3.0 |
| MAT 172 | Precalculus Trigonometry | 4.0 |
| CHM 151 | General Chemistry I | 4.0 |
| Behavioral/Social Science | | 3.0 |
| Credits | | 17 |
| Term III | | Credits |
| MAT 271 | Calculus I | 4.0 |
| Credits | | 4 |
| Term IV | | Credits |
| MAT 272 | Calculus II | 4.0 |
| PHY 251 | General Physics I | 4.0 |
| ENG 231 | American Literature I | 3.0 |
| or ENG 232 | or American Literature II | |
| CHM 152 | General Chemistry II | 4.0 |
| CSC 134 | C++ Programming | 3.0 |
| Credits | | 18 |
| Term V | | Credits |
| MAT 273 | Calculus III | 4.0 |
| PHY 252 | General Physics II | 4.0 |
| MAT 280 | Linear Algebra | 3.0 |
| MAT 285 | Differential Equations | 3.0 |
| EGR 220 | Engineering Statics | 3.0 |
| Credits | | 17 |
| Total Credits | | 69 |

Computer & Electrical Engineering Transfer Pathway

| Term I | | Credits |
|---------------------------|---|-----------|
| ENG 111 | Writing and Inquiry | 3.0 |
| ACA 122 | College Transfer Success | 1.0 |
| EGR 150 | Introduction to Engineering | 2.0 |
| MAT 171 | Precalculus Algebra | 4.0 |
| ECO 251 | Principles of Microeconomics | 3.0 |
| Credits | | 13 |
| Term II | | Credits |
| ENG 112 | Writing and Research in the Disciplines | 3.0 |
| COM 231 | Public Speaking | 3.0 |
| MAT 172 | Precalculus Trigonometry | 4.0 |
| CHM 151 | General Chemistry I | 4.0 |
| Behavioral/Social Science | | 3.0 |
| Credits | | 17 |
| Term III | | Credits |
| MAT 271 | Calculus I | 4.0 |
| Credits | | 4 |
| Term IV | | Credits |
| MAT 272 | Calculus II | 4.0 |
| PHY 251 | General Physics I | 4.0 |
| ENG 231 | American Literature I | 3.0 |
| or ENG 232 | or American Literature II | |
| CSC 134 | C++ Programming | 3.0 |
| CHM 152 | General Chemistry II | 4.0 |
| or BIO 111 | or General Biology I | |
| Credits | | 18 |
| Term V | | Credits |
| MAT 273 | Calculus III | 4.0 |
| PHY 252 | General Physics II | 4.0 |
| MAT 285 | Differential Equations | 3.0 |
| MAT 280 | Linear Algebra | 3.0 |
| EGR 212 | Logic System Design I | 3.0 |
| Credits | | 17 |
| Total Credits | | 69 |

Mechanical Engineering Transfer Pathway

| Term I | | Credits |
|---------------------------|---|-----------|
| ENG 111 | Writing and Inquiry | 3.0 |
| ACA 122 | College Transfer Success | 1.0 |
| EGR 150 | Introduction to Engineering | 2.0 |
| MAT 171 | Precalculus Algebra | 4.0 |
| ECO 251 | Principles of Microeconomics | 3.0 |
| Credits | | 13 |
| Term II | | Credits |
| ENG 112 | Writing and Research in the Disciplines | 3.0 |
| COM 231 | Public Speaking | 3.0 |
| MAT 172 | Precalculus Trigonometry | 4.0 |
| CHM 151 | General Chemistry I | 4.0 |
| Behavioral/Social Science | | 3.0 |
| Credits | | 17 |
| Term III | | Credits |
| MAT 271 | Calculus I | 4.0 |
| Credits | | 4 |
| Term IV | | Credits |
| MAT 272 | Calculus II | 4.0 |
| PHY 251 | General Physics I | 4.0 |
| ENG 231 | American Literature I | 3.0 |
| or ENG 232 | or American Literature II | |

| CHM 152 | General Chemistry II | 4.0 |
|----------------------|------------------------|-----------|
| DFT 170 | Engineering Graphics | 3.0 |
| Credits | | 18 |
| Term V | | Credits |
| MAT 273 | Calculus III | 4.0 |
| PHY 252 | General Physics II | 4.0 |
| MAT 280 | Linear Algebra | 3.0 |
| MAT 285 | Differential Equations | 3.0 |
| EGR 220 | Engineering Statics | 3.0 |
| Credits | | 17 |
| Total Credits | | 69 |

Systems Engineering Transfer Pathway

| Term I | | Credits |
|---------------------------|---|-----------|
| ENG 111 | Writing and Inquiry | 3.0 |
| ACA 122 | College Transfer Success | 1.0 |
| EGR 150 | Introduction to Engineering | 2.0 |
| MAT 171 | Precalculus Algebra | 4.0 |
| ECO 251 | Principles of Microeconomics | 3.0 |
| Credits | | 13 |
| Term II | | Credits |
| ENG 112 | Writing and Research in the Disciplines | 3.0 |
| COM 231 | Public Speaking | 3.0 |
| MAT 172 | Precalculus Trigonometry | 4.0 |
| CHM 151 | General Chemistry I | 4.0 |
| Behavioral/Social Science | | 3.0 |
| Credits | | 17 |
| Term III | | Credits |
| MAT 271 | Calculus I | 4.0 |
| Credits | | 4 |
| Term IV | | Credits |
| MAT 272 | Calculus II | 4.0 |
| PHY 251 | General Physics I | 4.0 |
| ENG 231 | American Literature I | 3.0 |
| or ENG 232 | or American Literature II | |
| CHM 152 | General Chemistry II | 4.0 |
| MAT 280 | Linear Algebra | 3.0 |
| Credits | | 18 |
| Term V | | Credits |
| MAT 273 | Calculus III | 4.0 |
| PHY 252 | General Physics II | 4.0 |
| MAT 285 | Differential Equations | 3.0 |
| EGR 212 | Logic System Design I | 3.0 |
| EGR 220 | Engineering Statics | 3.0 |
| Credits | | 17 |
| Total Credits | | 69 |