VALENCIA

# STEM Pathway

## Pre-Engineering AS (Undecided Concentration)

The Pre-Engineering degree provides the first two years of study for a student who plans to transfer to UNM-Albuquerque or another 4-year institution to pursue a bachelor's degree in Engineering. A degree in Pre-Engineering provides a foundation for further study in Chemical, Biological, Environmental, Material, Civil, Nuclear, Electrical, Computer, Mechanical, Aerospace, or Construction Engineering. The degree emphasizes a firm foundation in mathematics and science, with selections of engineering courses tailored to future, more specific fields of engineering.

| Fall | Course | Credits |
|---|---|---|
| | ENGL 1110: Composition I | 3 |
| | Gen Ed Arts and Design: Choose one course | 3 |
| | MATH 1215: Intermediate Algebra | 3 |
| | Gen Ed Student Choice: Choose the recommended course:<br>• CSCI 1210: Computer Programming Fundamentals | 3 |

| Spring | Course | Credits |
|---|---|---|
| | ENGL 1120: Composition II | 3 |
| | MATH 1220: College Algebra | 3 |
| | ENG 195: Topics: Introduction to Engineering | 3 |
| | Gen Ed Social and Behavioral Sciences: Choose one course | 3 |

| Summer | Course | Credits |
|---|---|---|
| | MATH 1240: Pre-Calculus | 3 |
| | MATH 1230: Trigonometry | 3 |

| Fall | Course | Credits |
|---|---|---|
| | MATH 1512: Calculus I | 4 |
| | PHYS 1310: Physics I and PHYS 1310L: Lab | 4 |
| | CHEM 1215: General Chemistry I and CHEM 1215L: Lab | 4 |

| Spring | Course | Credits |
|---|---|---|
| | MATH 1522: Calculus II | 4 |
| | Gen Ed Humanities: Choose one course | 3 |
| | Gen Ed Second Language: Choose one course | 3 |
| | PHYS 1320: Physics II and PHYS 1320L: Lab | 4 |

| Summer | Course | Credits |
|---|---|---|
| | ENGL 2210: Professional and Technical Communication | 3 |
| | CSCI 1260: Computer Programming Fundamentals: Java I | 3 |

| Fall | Course | Credits |
|---|---|---|
| | MATH 2531: Calculus III | 4 |
| | ENG 130L: Introduction to Engineering Computing | 3 |
| | CHEM 1225: General Chemistry II and CHEM 1225L: Lab | 4 |

**Total Program Credit Hours, including 3 prerequisite credit hours = 70**

# STEM Pathway

## Pre-Engineering AS (Undecided Concentration)

Meet with your Academic Success Coach

Apply for FAFSA by October 1st

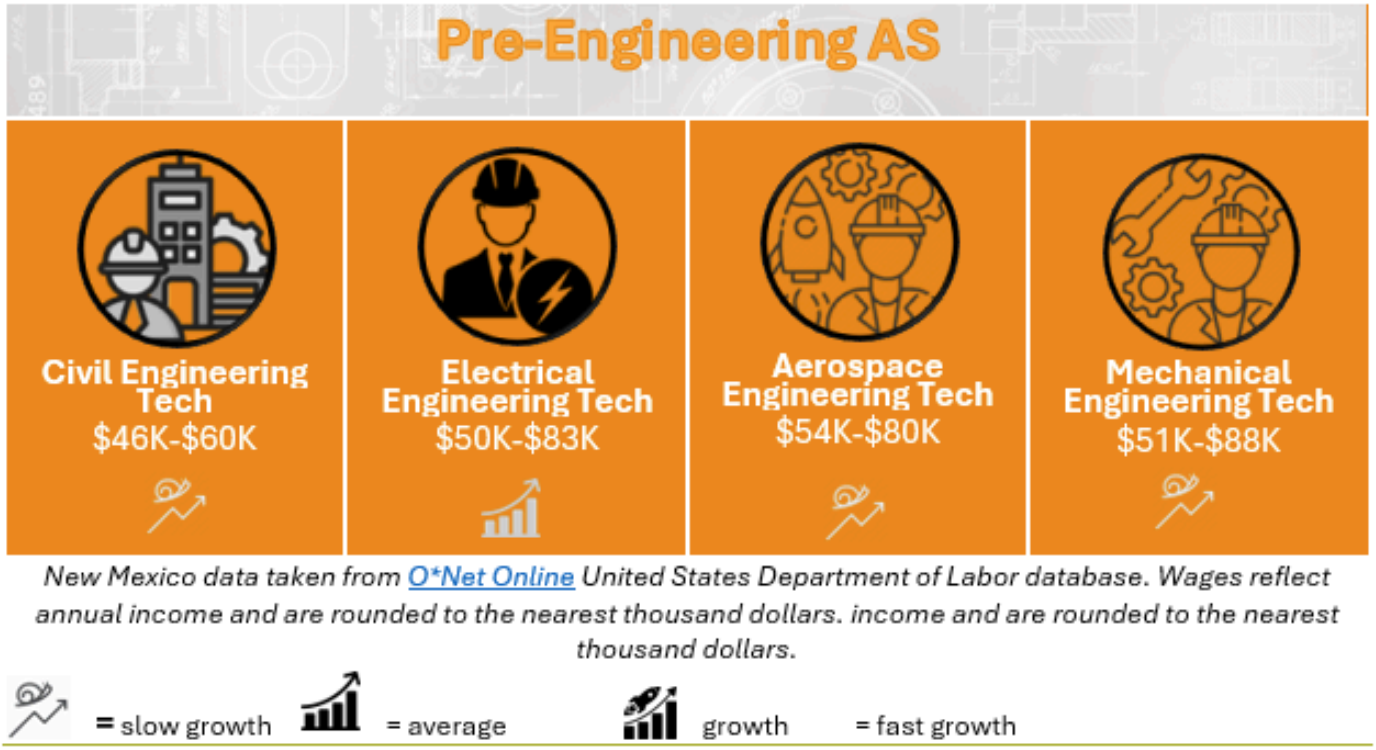
Meet with Financial Aid Apply for scholarships

Meet with your Faculty Mentor

Apply for graduation and/ or transfer

### Career and Educational Advancement Opportunities

This degree program prepares students with the math and science foundation to continue their studies toward a bachelor's degree in a variety of engineering fields such as chemical, nuclear, civil, construction, mechanical, electrical, or computer engineering. Most full engineering jobs require a bachelor's or master's degree. Technician jobs may be available to those on the associate's degree level. Internships are an important part of engineering education, and all engineering internships are paid.




*New Mexico data taken from O*Net Online United States Department of Labor database. Wages reflect annual income and are rounded to the nearest thousand dollars. income and are rounded to the nearest thousand dollars.*

**For questions or to schedule a time to meet with an Advisor/Academic Success Coach about this program contact: Advisement at 505.925-8907. Map Current as of the 2026-2027 Academic Year.**