

PRE-ENGINEERING

Associate of Science

60 credit hours*

The Associate of Science Degree in Pre-Engineering is intended to provide the graduate with a foundational understanding of core sciences, an in-depth foundation in mathematics, and core curriculum prerequisites.

Students working toward this degree will be eligible for a Common Core Certificate of Completion.

Upon program completion students will be able to:

- Demonstrate effective written and verbal communication skills.
- Exhibit an in-depth understanding of mathematics.
- Display foundational knowledge of chemistry, physics and engineering.
- Apply their learning to a Bachelor's of Science degree in engineering.

**Additional hours may be required for program requirements for transfer students who are NMGEC complete.*

Any student who is ineligible for state, national, or industry licensure or certification is ineligible for entry into this program.

Institutional and Related Requirements – 10 hours

ENGL 1110 – Composition I (3)
FYEX 1110 – First-Year Seminar (3)
MATH 1216 – Preparatory Algebra (4)

Note: If institutional/related requirements are waived, additional elective courses will be needed to meet the minimum hours required for the degree.

Program Requirements – 20 hours

Required courses:

CHEM 1215/L– General Chemistry I for STEM Majors/
Lab (4)**
CHEM 1225/L– General Chemistry II for STEM Majors/
Lab (4)**
ECON 2110 – Macroeconomic Principles (3)
ENGL 2210 – Professional & Technical
Communication (3)
MATH 1220 – College Algebra (4)*
MATH 1230 – Trigonometry (3)
MATH 1510 – Calculus I (4)
MATH 1520 – Calculus II (4)

**May be used to satisfy NMGEC Mathematics requirement.*

***May be used to satisfy NMGEC Science requirement.*

New Mexico General Education Curriculum (NMGEC) – 31 hours (as itemized below)

Communications – 6 hours

ENGL 1120, 2210; and COMM 1130, 2120, 2150.

Mathematics – 4 hours

MATH 1130, 1220, 1230, 1510, 1520.

Science – 4 hours

Choose one from* ANTH 1120C; BIOL 1110/L, 1133C, 1215/L, 2110/L, 2210/L, 2310/L, 2610/L; CHEM 1215/L, 1225/L; GEOL 1120/L.

**see course description for Math prerequisite*

Social and Behavioral Sciences – 3 hours

CJUS 1110, 2140, 2360; ECON 1110, 2110, 2120; GEOG 1130; POLS 1120; PSYC 1110, 2110, 2120, 2130, 2140, 2260; SOCI 1110, 2310.

Humanities – 3 hours

Choose one from ENGL 1410, 2520, 2610, 2620, 2630, 2640; HIST 1110, 1120, 1150, 1160, 2110; HUMN 1110, 2110; PHIL 2110; SPAN 1110, 1120.

Creative and Fine Arts – 3 hours

Choose one from ARTH 1110; ENGL 2310; MUSC 1130; THEA 1210.

Flexible nine – 9 hours

Choose three courses from:

Any course from the NMGEC and/or BUSA 1110