School of Earth and Space Exploration
Arizona State University

Catalog Year: 2025-2026

The BS degree in Earth and Space Exploration requires the following core courses (21 credits):

SES 121 Earth, Solar System & Universe (3) and
SES 123 Earth, Solar System & Universe Lab (1)
Select one set:
SES 122 History of Earth & Solar System (3) and
SES 124 History of Earth & Solar System Lab (1)
OR
SES 126 Exploration of the Universe (3) and
SES 128 Exploration of the Universe Lab (1)

SES 230 Coding for Exploration (3)
SES 401 SESE Colloquium (1)
SES 410 Senior Exploration Project I (3)
SES 411 Senior Exploration Project II (3)
SES 421 Foundations of Planetary Science (3)

In addition, FOUR Branch Courses from the following list must be taken (12 credits):

AST 321 Stellar and Planetary Astrophysics (3)
AST 322 Intro Galactic and Extragalactic Astro (3)
GLG 310 Structural Geology (3)
GLG 321 Mineralogy (3)
GLG 418 Geophysics (3)
GLG 424 Petrology (3)
GLG 471 Hydrology (3)

GLG 481 Geochemistry (3)
GLG 490 Remote Sensing (3)
SES 311 Essentials of Astrobiology (3)
SES 330 Practical Electronics & Instrument (4)
SES 350 Engr Sys & Exper Prob Solving (3)
SES 405 Exploration Sys Engineering (3)

In addition, TWO 3-credit upper-division elective courses from SES/GLG/AST topics (6 credits). **Students may not use multiple 1-credit seminars towards this requirement.**

Required courses in other related fields include the following (24 credits):

CHM 114 General Chemistry for Engineers (4) or CHM 116 General Chemistry II (4)*
MAT 265 Calculus for Engineers I (3) or MAT 270 Calculus with Analytic Geometry I (4)
MAT 266 Calculus for Engineers II (3) or MAT 271 Calculus with Analytic Geometry II (4)
MAT 267 Calculus for Engineers III (3) or MAT 272 Calculus with Analytic Geometry III (4)
MAT 275 Modern Differential Equations (3)
PHY 121 University Physics I: Mechanics (3)
PHY 122 University Physics Laboratory I (1)
PHY 131 University Physics II: Electricity and Magnetism (3)
PHY 132 University Physics Laboratory II (1)

*Students who complete both CHM 113 and CHM 116 can substitute CHM 116 for CHM 114

IMPORTANT NOTES:

- **Students must receive C's or better in all of the above courses in order for them to count towards the major.**
- **The major map for the student's catalog year represents the official catalog for the degree.**
- **Substitutions for any of the requirements above must be pre-approved by a SESE advisor and/or the SESE Undergraduate Committee. The student must notify the advisor if substitutions or other requirements are not showing up on the DARS correctly.**