

The BS degree in Earth and Space Exploration with a concentration in Astrobiology & Biogeosciences requires the following core courses (26 credits):

SES 121 Earth, Solar Sys & Universe I (3) and	SES 230 Coding for Exploration (CS) (3)
SES 123 Earth, Solar Sys & Universe Lab I (1)	GLG 321 Mineralogy (3)
Select one set:	GLG 481 Geochemistry (3)
SES 122 Earth, Solar Sys, & Univ II (3) and	SES 311 Essentials of Astrobiology (3)
SES 124 Earth, Solar Sys, & Univ Lab II (1) <u>OR</u>	SES 410 Senior Exploration Project I (3)
SES 126 Exploration of the Universe (3) and	SES 411 Senior Exploration Project II (3)
SES 128 Exploration of the Universe Lab (1)	

In addition, 6 credits of Upper-division Electives from AST/GLG/SES topics are required. Select electives from the following or substitute with advisor approval:

AST 321 Intro Planet. & Stellar Astrophysics (3)	GLG 460 Astrobiology (3)
BIO 320 Fundamentals of Ecology (3)	GLG 461 Geomicrobiology (3)
BIO 340 General Genetics (3)	GLG 485 Meteorites and Cosmochemistry (3)
BIO 345 Organic Evolution (3)	GLG 489 Field Geochemistry (L) (3)
GLG 404 Fundamentals Planetary Geology (3)	GLG 490 Remote Sensing (3)
GLG 430 Paleontology (3)	SES 350 Eng Sys & Exper Problem Solving (3)
GLG 435 Sedimentology and Stratigraphy (3)	

Required courses in other related fields include the following (33 credits):

BIO 181 General Biology I (4)
BIO 182 General Biology II (4)
CHM 113 General Chemistry I (SQ) (4)
CHM 116 General Chemistry II (SQ) (4)
MAT 265 Calculus for Engineers I (3) or MAT270 Calc with Analytic Geometry I (4)
MAT 266 Calculus for Engineers II (3) or MAT271 Calc with Analytic Geometry II (4)
MAT 267 Calculus for Engineers III (3) or MAT272 Calc with Analytic Geometry III (4)
PHY 121 University Physics I: Mechanics (SQ) (3)¹
PHY 122 University Physics Laboratory I (SQ) (1)¹
PHY 131 University Physics II: Electricity and Magnetism (SQ) (3)¹
PHY 132 University Physics Laboratory II (SQ) (1)¹

¹Both the lecture and lab must be taken to secure SQ credit.

IMPORTANT NOTES:

- **Students must receive C's or better in all of the above courses in order for them to count toward 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 SESE Undergraduate Committee. The student must notify the advisor if substitutions or other requirements are not showing correctly on DARS.**