

The BS degree in Earth and Space Exploration with a concentration in Exploration Systems Design requires the following core courses (34 credits):

SES 100 Introduction to Exploration (3)	EEE 202 Circuits (4)
SES 121 Earth, Solar Sys, & Univ I (3) and	MAE 201 Mech. Particles/Rigid Bodies I: Statics (3)
SES 123 Earth, Solar Sys, & Univ Lab I (1)	SES 330 Electronics Instrumentation (4)
Select one set:	SES 350 Eng Syst & Exper Prob Solving (3)
SES 122 Earth, Solar Sys, & Univ II (3) and	SES 405 Exploration Systems Engineering (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 and	SES 411 Senior Exploration Project II (3)
SES 128 Exploration of the Universe Lab	

In addition, one Upper-division Elective course must be taken (3 credits). Select from the following or substitute with advisor approval:

AST 321 Intro Planet & Stellar Astr (3)	GLG 471 Hydrology (3)
AST 322 Intro Galactic & Extragalactic Astr (3)	SES 307 Space Works I (3)
GLG 321 Mineralogy (3)	SES 311 Essentials of Astrobiology (3)
GLG 404 Fundamentals Planetary Geology (3)	SES 307 Space Works II (3)
GLG 424 Petrology (3)	

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

CHM 114 General Chemistry for Engineers (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 may substitute CHM 116 (must take both CHM 113 and 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 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 approved by a SESE advisor and the student must notify the advisor if substitutions or other requirements are not showing up on the DARS correctly.**