

Earth and Space Exploration (Astrobiology & Biogeosciences) BS Course Prerequisites

Course prefix	Course Name	Hrs	When	Prerequisites
SES121	Earth, Solar System & Universe	3	F	
SES123	Earth, Solar System & Universe Lab	1	F	Pre/co-req: SES 121 with C or better if completed
Term 2 intro SES classes – select either SES 122 and 124 OR SES 126 and 128. SES 122/124 are recommended for Astrobiology majors.				
SES122	History of Earth & Solar System	3	S	SES 121 with C or better
SES124	History of Earth & Solar System Lab	1	S	SES 123 with C or better; Pre/co-req SES122 with C or better if completed
SES126	Exploration of the Universe	3	S	Mathematics Placement Test with a score of 50% or higher, or ALEKS score of 61 or higher; SES 121 with C or better; Pre-/co-req: MAT 170, 171, 210, 251, 265, or 270 with C or better if completed
SES128	Exploration of the Universe Lab	1	S	SES 123 with C or better; Pre/co-req SES126 with C or better if completed
SES130	Coding for Exploration	3	F	SES 121 with C or better; Pre/co-req: MAT 265 or 270 with C or better if completed
SES311	Essentials of Astrobiology	3	S	BIO 181 (or 188), CHM 113 or PHY 121 with a C or better; MAT 265 or 270 with C or better
GLG321	Mineralogy	3	S	CHM 113 (or both CHM 111 and 117 or CHM114) with C or better; MAT 170, 210, 265 or 270 with C or better
GLG481	Geochemistry	3	S	BCH 341, CHM 341, CHM 346, or GLG 321 with C or better; Credit is allowed for only CHM 481 or GLG 481
SES410	Senior Exploration Project I	3	F	ENG 101, ENG 105 or ENG 107; Senior standing
SES411	Senior Exploration Project II	3	S	ENG 101, ENG 105 or ENG 107; SES410
UD electives (2)	See list on Page 2 for suggestions	6		
BIO181	General Biology I	4	F,S,SS	Credit is allowed for only BIO 181 or BIO 281 or BIO 282
BIO182	General Biology II	4	F,S,SS	BIO 181 with C or better; Credit is allowed for only BIO 182 or BIO 281 or BIO 282
CHM113	General Chemistry I	4	F,S,SS	CHM 101 with C or better, or Mathematics Placement Test score of 50% or higher, or ALEKS score of 61 or higher, OR Pre/Co-req: MAT 170, 171, 210, 251, 265 or 270 with C or better if completed
CHM116	General Chemistry II	4	F,S,SS	CHM 113, 114 or 117 with C or better
MAT265 or 270	Calculus I	3	F,S,SS	MAT 170 or 171 with C or better OR Mathematics Placement Test with a score of 60% or higher and Advanced Math Placement test with a score of 38 or higher OR ALEKS score of 76 or higher; Credit is allowed for only MAT 265 or MAT 270
MAT266 or 271	Calculus II	3	F,S,SS	MAT 265 or 270 with C or better; Credit is allowed for only MAT 266 or MAT 271
MAT267 or 272	Calculus III	3	F,S,SS	MAT 266 or 271 with C or better; Credit is allowed for only MAT 267 or MAT 272
PHY121	University Physics I: Mechanics	3	F,S,SS	MAT265 or 270 with a C or better; Pre/Co-req: MAT 266 or MAT 271 with C or better if completed
PHY122	University Physics Laboratory I	1	F,S,SS	Pre/Co-req: PHY 121 with C or better if completed
PHY131	University Physics II: Elec.& Mag.	3	F,S,SS	MAT 266 or 271 with C or better; PHY 121 with C or better; Pre/Co-req: MAT 267 or 272 with C or better if completed
PHY132	University Physics Laboratory II	1	S,SS	Pre/Co-req: PHY131 with C or better if completed

Suggested Upper-division major electives (or substitute other upper division SES/GLG/AST classes with advisor approval):

Course prefix	Course Name	Hrs	When	Prerequisites
AST321	Introduction to Planetary and Stellar Astrophysics	3	F	MAT266 or 271 with C or better; PHY121 and 122 (or PHY150) with C or better
BIO320	Fundamentals of Ecology	3	F,S,SS	BIO 181 with C or better; BIO 182 (or PLB 200) with C or better; CHM 116 or 118 with C or better OR BIO 281 with C or better; BIO 282 with C or better; CHM 116 or 118 with C or better
BIO340	General Genetics	4	F,S,SS	All with C or better: BIO 181; BIO 182 OR BIO 181, BIO 281, or MBB 245; MBB 247 OR BIO 281; BIO 282
BIO345	Organic Evolution	3	F,S,SS	BIO 340 or LSC 347 or MBB 347 with C or better
GLG404	Fundamentals of Planetary Geology	3	F	GLG 101, GLG 102, SES 121, or SES 122 with C or better
GLG430	Paleontology	3	F	GLG 102 or SES 122 with C or better; GLG 104 or SES 124
GLG435	Sedimentology	3	S	GLG 102 or SES 122 with C or better; GLG 321 with C or better
GLG460*	Astrobiology	3	F	AST 112 or BIO 182 or BIO 282 or GLG 102 or SES 122 or with C or better; one 300-level course in AST or BIO or CHM or GLG or MIC or PHY or SES with C or better
GLG485*	Meteorites and Cosmochemistry	3	S	GLG321, CHM 341 or CHM 346 with C or better
GLG489*	Field Geochemistry (L)	3	S	CHM 302 or GLG 321 or GLG 481 with C or better
GLG490*	Special Topics: Remote Sensing	3	F	
SES350	Engineering Systems and Experimental Problem Solving	3	F	All with C or better: MAT 267, 272 or 275; PHY 131; PHY 132 OR MAT 267, 272, 275; PHY 151

*Classes may not be offered on a regular schedule.

Codes for offering: F=fall, S=spring, SS=summer session

semicolon (;) = AND

Special note: This handout is intended as a helpful tool for scheduling planning. However, students and advisors should consult the course catalog for official course information as pre-requisites and course offerings are constantly evolving.