

Earth and Space Exploration concentration in Astrobiology/Biogeosciences course information

Course prefix	Course Name	Hrs	When	Prerequisites
SES100	Introduction to Exploration	3	F	Pre / co-req MAT170 or higher or MPT score of 50% or higher
SES121	Earth, Solar System and Universe I	3	F	Pre / co-req MAT170 or higher or MPT score of 50% or higher
SES123	Earth, Solar System and Universe I-Lab	1	F	Pre / co-req MAT170 or higher or MPT score of 50% or higher AND SES121 (C or better if completed)
SES122	Earth, Solar System and Universe II	3	S	Pre-req: SES121 (C or better)
SES124	Earth, Solar System and Universe II-Lab	1	S	Pre/co-req SES122 (C or better if completed)
SES311	Essentials of Astrobiology	3	S	MAT 265 or MAT 270 with C or better; PHY 121 or CHM 113 or BIO 188 with C or better
GLG321	Mineralogy	3	S	CHM113 or CHM114 or CHM117/111 AND MAT170 or MAT210 or MAT265 or MAT270; all with C or better
GLG481	Geochemistry	3	S	CHM 341 (or 346) or GLG 321 with C or better
SES410	Senior Exploration Project I	3	F	ENG 101, ENG 105 or ENG 107; Senior standing
SES411	Senior Exploration Project II	3	S	SES410
SES electives (2)	See list on 2 nd page for suggestions	6		
BIO181	General Biology I	4	F,S,SS	
BIO182	General Biology II	4	F,S,SS	
CHM113	General Chemistry I	4	F,S,SS	CHM 101 (C or better), Mathematics Placement Test score of 50% or higher, or Pre/Corequisite(s): MAT 170, 171, 210, 251, 265 or 270 (C or better if completed); Credit allowed for CHM113 or 117
CHM116	General Chemistry II	4	F,S,SS	Pre-req: CHM 113 or CHM 117, or CHM 114 (C or better); Credit is allowed for only CHM 115, 116 or 118
MAT265/270	Calculus I	3	F,S,SS	MAT 170 with C or better OR Mathematics Placement Test with a score of 60% or higher and the Advanced Mathematics Placement test with a score of 38 or higher. Credit allowed for MAT 265 or MAT 270
MAT266/271	Calculus II	3	F,S,SS	MAT 265 or 270 with C or better; Credit is allowed for only MAT 266 or 271
MAT267/272	Calculus III	3	F,S,SS	MAT 266 or 271 with C or better; Credit is allowed for only MAT 267 or 272
PHY121	University Physics I: Mechanics	3	F,S,SS	Pre-req MAT265 or MAT270 with a C or better; Pre or Co-req: MAT 266 or MAT 271 (with C or better if completed)
PHY122	University Physics Laboratory I	1	F,S,SS	Pre- or Co-requisite: PHY 121 (with C or better if completed)
PHY131	University Physics II: Elec.& Mag.	3	F,S,SS	MAT 266 or MAT 271 AND PHY 121 (all C or better); Co-req: MAT 267 or MAT 272 (C or better if completed)
PHY132	University Physics Laboratory II	1	S,SS	Pre or Co-req: PHY131 (C or better if completed)

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

AST321	Intro to Planetary and Stellar Astronomy	3	F	MAT266 or MAT271 with C or better AND PHY122/122 or PHY150 with C or better
BIO320	Fundamentals of Ecology	3	F,S,SS	BIO 181 (or BIO 188) and BIO 182 (or BIO 187 or PLB 200 and PLB 201) with C or better OR BIO 281 and 282 with C or better; CHM 113 and 116 with C or better
BIO340	General Genetics	4	F,S,SS	BIO 181 (or BIO 188) and BIO 182 (or BIO 187 or both PLB 200 and 201) with C or better OR BIO 281 and 282 with C or better OR MBB 245 and 247 with C or better
BIO345	Organic Evolution	3	F,S,SS	BIO 340 or LSC 347 with C or better; CHM 116(or 115) with C or better
GLG404	Fundamentals of Planetary Geology	3	F	GLG101 or GLG102 or SES121 or SES122, with a C or better
GLG430	Paleontology	3	F	GLG 102 (or SES 122) with C or better; GLG 104 (or SES 124) with D or better
GLG435	Sedimentology	3	S	GLG102 or SES122 (C or better) AND GLG 321 (C or better)
GLG460*	Astrobiology	3	F	GLG 102 or SES 122 or AST 112 or BIO182 or BIO282 AND must have completed a 300 level course in any one of GLG/SES/CHM/PHY/BIO/AST/MIC; all with C or better
GLG461*	Geomicrobiology	3		
GLG485*	Meteorites and Cosmochemistry	3	S	GLG321 with C or better OR CHM341 or CHM346 with C or better
GLG490*	Isotope Geochemistry	3		
GLG490*	Special Topics: Remote Sensing	3	F	
GLG490	Field Geochemistry	3	S	
SES350	Engineering Systems and Experimental Problem Solving	3	F	Pre-requisite: MAT 267, 272 or 275; PHY 131 and 132 (or 151) with a grade of C or better

*Classes may not be offered on a regular schedule.

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

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.