

BA in Earth and Environmental Studies: List of Approved Upper Division Electives

Requirements:

- Students must take at least 5 upper-division courses with topics related to the environment (15 credit hours minimum).
- At least 2 of the EES elective courses (6 hours) must be 400-level; all 5 courses must be upper division (300-400 level).
- If a student finds a course that they would like to take that is not on this list, they should consult with a SESE advisor for approval to apply the course as an EES major elective **prior to** registering for the course.
- We will generally accept any upper-division course with a GLG prefix as an EES major elective if you have the pre-requisites to take it.

Special Notes:

- Changes to courses and pre-requisites are always occurring. Check course catalog for pre-requisite updates.
- Not all listed courses are offered at Tempe Campus. Some may be taught exclusively at other ASU campuses.
- Make sure to check the legend and **When Offered** column. Not all courses are offered regularly in the given semesters and may be offered in alternating years only.

LEGEND	
F = Fall	i = may be offered as an iCourse
S = Spring	* Course has a lab component
SS = Summer Session	** Course not offered in a regular pattern

Class number and title	Credit Hours	When Offered	Pre-requisites	GS
ABS 302 Ethical and Policy Issues in Biology	3	F/S/SS/i	Minimum 45 hours	
ABS 350 Applied Statistics	3	F/S/SS	One course meeting General Studies MA requirement with C or better (Offered at Polytechnic campus only)	CS
ASB 326 Human Impacts on Ancient Environments	3	F or S**		SB + H
ASB 375 Humans and the Environment: What's the Connection?	3	F or S**	ENG 101, 105 or 107 w/ C or better; min 45 hours; Credit is allowed for only ASB 375 or SOS 375 or ASB 394 (People: Env Connections in Anthropology) or ASB 494 (Ecological & Environmental Anthropology)	(L or SB) + G

Class number and title	Credit Hours	When Offered	Pre-requisites	GS
BIO 324 Environmental Ethics	3	F/SS/i	Credit is allowed for only BIO 324 or PHI 310	HU
BIO 412 Conservation in Practice	3	S**	Minimum 45 hours; Credit is allowed for only BIO 412 or SOS 412	
CEE 400 Earth Systems Engineering and Management	3	F/S/SS	Civil Engineering BSE major and CEE 300 with C or better <u>OR</u> non-CEE major with minimum junior standing; ENG 101, 105, or 107 with C or better	(L or HU) + H
ENG 371 Rhetoric of the Environmental Movement	3	F/i	ENG 102, 105 or 108 with C or better	
ERM 426 Environmental Issues	3	SS/i	Minimum 45 hours	
ERM 428 International Environmental Management	3	S/i	Minimum 45 hours	G
FIS 334 Science, Technology and Inequality	3	F or S**	Minimum 45 hours; Credit is allowed for only FIS 334 or JUS 334	C
FIS 444 Environment and Justice	3	S**	ENG 102, 105, or 108 with C or better; minimum 36 hours; Credit is allowed for only FIS 444 or JUS 444	L + C
GCU 364 Energy in the Global Arena	3	S**		SB + G
GIS 311 Geographic Information Science III*	4	F/S/SS/i	GIS 211 with C or better	CS
GIS 322 Programming Principles GIS II	3	F/S/SS/i	GIS 222 with C or better <u>OR</u> Data Science BS major with either CSE 110, CSE 205, or GIS 222 with C or better	
GIS 341 Cartography and Georepresentation	3	F/S/SS/i	GIS 205 with C or better	CS
GIS 470 Advanced Statistics for Geography and Planning	3	F/S/i	GIS 270 with C or better	CS
GLG 301 Earth Science in Arizona and the Southwest	3	F	ENG 101, 105 or 107 with C or better; GLG 101, 102, 110, GPH 111 or SES 121; MAT 117 or higher; Credit is allowed for only GLG 301, 394 (Earth Sci in AZ & SW) or SOS 372	
GLG 304 Minerals, Energy, and Society	3	S	ENG 101, ENG 105 or ENG 107 with C or better; GLG 101, GLG 102, GLG 110, GPH 111, SES 121, or minimum junior standing; Credit is allowed for only GLG 304, GLG 394 (Minerals, Energy & Society) or SOS 373	

Class number and title	Credit Hours	When Offered	Pre-requisites	GS
GLG 310 Structural Geology*	3	F	GLG 101 or SES 121 with C or better; MAT 170, 171, 210, 251, 265, or 270 with C or better	
GLG 321 Mineralogy*	3	F	CHM 113 (or both CHM 111 and 117 or 114) with C or better; MAT 170, 210, 265 or 270 with C or better	
GLG 424 Petrology*	3	FA '22/ SP '24	GLG 321 with C or better (Fall 2022 last fall offering; won't be offered again until Spring 2024; will be offered in spring semesters thereafter)	
GLG 430 Paleontology*	3	F/S**	GLG 102 or SES 122 with C or better; GLG 104 or SES 124	
GLG 435 Sedimentology*	3	S	GLG 102 or SES 122 with C or better; Pre- or corequisite: GLG 321 with C or better if completed	
GLG 441 Ore Deposits	3	F**	GLG 101 or SES 121 with C or better; GLG 310 or 321 with C or better	
GLG 470 Hydrogeology	3	F**		
GLG 481 Geochemistry	3	F/S	GLG 321 with a C or better	
GPH 314 Global Change	3	F/S/SS/i	Minimum 45 hours	HU + G
GPH 381 Geography of Natural Resources	3	F/S/SS/i		G
GPH 414 Climate Change	3	S/i	GPH 111 or 213 or 314 with C or better	G
HST 345 Environmental History	3	F/S/i	ENG 102, 105, 108 or 112 with C or better	L
JUS 332 Politics of Energy Policy and Justice	3	S	ENG 102, 105, or 108 with C or better; minimum 24 hours	
JUS 334 Science, Technology and Inequality	3	F or S**	Minimum 45 hours; Credit is allowed for only FIS 334 or JUS 334	C
JUS 444 Environment and Justice	3	S**	ENG 102, 105, or 108 with C or better; minimum 36 hours; Credit is allowed for only FIS 444 or JUS 444	L + C
JUS 456 Human Rights and Sustainability	3	F**	ENG 102, 105, or 1008 with C or better; minimum 36 credit hours; Credit is allowed for only JUS 456 or JUS 497 (Seminar in Human Rights) or SOC 455 or SOS 456	(L or SB) + G
PHI 310 Environmental Ethics	3	F/S/SS/i	Credit is allowed for only BIO 324 or PHI 310	HU

Class number and title	Credit Hours	When Offered	Pre-requisites	GS
POS 300 Contemporary Global Controversies	3	F/S/SS/i		SB + G
PUP 301 Introduction to Urban Planning	3	F/S/SS/i	ENG 101, ENG 105, or ENG 107 with C or better	L
PUP 442 Environmental Planning	3	F/SS/i	PUP 301 with C or better	
SCN 300 Foundations of Environmental Education	3	F/S/i		
SCN 302 Environmental Education	3	F/S/i	ENG 101, 105, or 107 with C or better	L + G
SCN 307 Learning from Nature: Biomimicry and STEM	3	F/S/SS/i	Minimum 45 hours; Credit is allowed for only SCN 307 or SCN 494 (Learning from Nature: Biomimicry & STEM)	
SCN 308 Urban Environmental Education	3	F/S/SS/i**	Minimum 45 hours	
SCN 310 Biodiversity Conservation: An Educational Inquiry	4	F/S/i	Minimum 45 hours; Credit is allowed for only SCN 310 or SCN 294 (Biodiversity Conservation) or SCN 494 (Biodiversity Conservation)	
SCN 401 Sustainability Science, Technology, and Society	3	F**	Non-Teacher Preparation student; minimum junior standing	
SOC 331 Environmental Sociology	3	S**	Minimum 45 hours	SB + G
SOS 300 Advanced Concepts and Integrated Approaches in Sustainability	3	F/S/SS/i	SOS 100, 110, 111 or PUP 190 with C or better; minimum 45 hours	
SOS 310 Equity, Justice and Sustainability	3	F/S/SS/i	PUP 190 or SOS 111 with C or better; SOS 110 with C or better	
SOS 314 Basic Energy Science	3	F/S/SS/i	Minimum 45 hours	
SOS 315 Energy Policy	3	F/S/SS/i	Minimum 45 hours; Credit is allowed for only SGS 315 or SOS 315	
SOS 320 Society and Sustainability	3	F/S/SS/i	Two of following courses: SOS 100, SOS 110, SOS 111 (or PUP 190), SOS 300 with C or better; ENG 101, 105 or 107	L or SB
SOS 321 Policy and Governance in Sustainable Systems	3	F/S/SS/i	Two of following courses: SOS 100, SOS 110, SOS 111 (or PUP 190), SOS 300 with C or better	
SOS 323 Sustainable Urban Dynamics	3	F/S/SS/i	Two of following courses: SOS 100, SOS 110, SOS 111 (or PUP 190), SOS 300 with C or better	

Class number and title	Credit Hours	When Offered	Pre-requisites	GS
SOS 324 Sustainable Energy Technology and Systems	3	F/S/SS/i	Two of following courses: SOS 100, SOS 110, SOS 111 (or PUP 190), SOS 300 with C or better	
SOS 325 The Economics of Sustainability	3	F/S/SS/i	Two of following courses: SOS 100, SOS 110, SOS 111 (or PUP 190), SOS 300 with C or better	
SOS 326 Sustainable Ecosystems	3	F/S/SS/i	Two of following courses: SOS 100, SOS 110, SOS 111 (or PUP 190), SOS 300 with C or better	
SOS 327 Sustainable Food and Farms	3	F/S/SS/i	Two of following courses: SOS 100, SOS 110, SOS 111 (or PUP 190), SOS 300 with C or better	
SOS 372 Earth Science in Arizona and the Southwest	3	F	ENG 101, 105 or 107 with C or better; GLG 101, 102, 110, GPH 111 or SES 121; MAT 117 or higher; Credit is allowed for only GLG 301 or GLG 394 (Earth Sci in AZ & SW) or SOS 372 OR Visiting University Student	
SOS 373 Minerals, Energy, and Society	3	S	ENG 101, ENG 105 or ENG 107 with C or better; GLG 101, GLG 102 or GLG 110 or GPH 111 or SES 121 or Junior standing; Credit is allowed for only GLG 304, GLG 394 (Minerals, Energy & Society) or SOS 373	
SOS 375 Humans and the Environment: What's the Connection?	3	F or S**	ENG 101, 105 or 107 w/ C or better; min 45 hours; Credit is allowed for only ASB 375 or SOS 375 or ASB 394 (People: Env Connections in Anthropology) or ASB 494 (Ecological & Environmental Anthropology)	(L or SB) + G
SOS 456 Human Rights and Sustainability	3	F**	ENG 102, 105, or 108 with C or better; minimum 36 hours; Credit is allowed for only JUS 456 or JUS 497 (Seminar in Human Rights) or SOC 455 or SOS 456	(L or SB) + G
STP 420 Introductory Applied Statistics	3	F/S/SS/i	MAT 210, 251, 265, or 270 with C or better	CS