

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.
- Not all courses are offered regularly in the given semesters and may be offered in alternating years only.

List of Pre-approved Courses

Class number and title	Credit Hours	When Offered	Pre-requisites	GS
ABS 430 Watershed Management	3	F**	Minimum 45 hours (<i>Polytechnic campus</i>)	
ABS 479 Ecosystem Management and Planning	3	S	Senior standing (<i>Polytechnic campus</i>)	L
ABS 485 GIS in Natural Resources	3	F	Minimum 45 hours (<i>Polytechnic campus</i>)	
ABS 486 Introduction to Remote Sensing*	4	S	Minimum 45 hours (<i>Polytechnic campus</i>)	
ASB 326 Human Impacts on Ancient Environments	3	S**		SB + H
ASB 375 Humans and the Environment: What's the Connection?	3	F/S/SS**	Minimum 45 hours; Credit is allowed for only ASB 375 or SOS 375 or ASB 394 (People: Environment Connections in Anthropology) or ASB 494 (Ecological and Environmental Anthropology)	(L or SB) + G
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	(L or HU) + H
ENG 371 Rhetoric of the Environmental Movement	3	S/i	ENG 102, 105 or 108 with C or better	
ERM 426 Environmental Issues	3	SS/i		

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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 341 Cartography and Georepresentation	3	F/S/SS/i	GIS 205 with C or better	CS
GLG 301 Earth Science in AZ & the SW	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 & 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	
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	S	CHM 113 or 114; MAT 170 (or higher); both with C or better	
GLG 424 Petrology*	3	F	GLG 321 with C or better	
GLG 430 Paleontology*	3	F	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; GLG 321 with C or better	
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	S	Completion of one 300-level science course; MAT 170	
GLG 476 Climate Science for Sustainability	3	F**	Minimum 45 hours; Credit is allowed for only GLG 476 or GLG 576 or SOS 476 or SOS 576 or GLG 494 (Climate Sci Sustain) or GLG 598 (Climate Sci Sustain) or SOS 494 (Climate Sci Sustain) or SOS 598 (Climate Sci Sustain)	
GLG 481 Geochemistry	3	F/S	GLG 321 with a C or better	
GPH 314 Global Change	3	F/S/SS/i	Minimum 45 credit hours	HU + G
GPH 381 Geography of Natural Resources	3	F/S/SS/i		G
GPH 414 Climate Change	3	S**	GPH 111 or 213 or 314 with C or better	G
HST 345 Environmental History	3	F/SS/i	ENG 102, 105, 108 or 112 with C or better	L
JUS 332 Politics of Energy Policy and Justice	3	F	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

Class number and title	Credit Hours	When Offered	Pre-requisites	GS
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 JUST 497 (Seminar in Human Rights) or SOC 455 or SOS 456	(L or SB) + G
PHI 310 Environmental Ethics	3	F/SS/i	Credit is allowed for only BIO 324 or PHI 310	HU
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	PUP 301 with C or better	
SCN 300 Foundations of Environmental Education	3	F/S/i		
SCN 302 Environmental Education	3	F/S	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	
SCN 308 Urban Environmental Education	3	F/S/SS/i	Minimum 45 hours	
SCN 401 Sustainability Science, Technology, and Society	3	F/S/SS/i	Non-Teacher Preparation student; minimum junior standing	
SOC 331 Environmental Sociology	3	S	Minimum 45 hours	SB + G
SOC 455 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 JUST 497 (Seminar in Human Rights) or SOC 455 or SOS 456	(L or SB) + G
SOS 300 Adv. Concepts & integrated Approaches in Sustainability	3	F/S/SS/i	Sustainability minor with SOS100, 110, 111 or PUP 190 w/ C or better and 6 hours from two identified themes	
SOS 310 Equity, Justice and Sustainability	3	F/S/SS/i	PUP190 (or SOS 111) and SOS 110 with C or better	
SOS 314 Basic Energy Science	3	F/S/SS/i	Minimum 45 hours; Credit allowed for only SOS 314 or SOS 394 (Basic Energy Science)	
SOS 315 Energy Policy	3	F/S/SS/i	Minimum 45 hours; Credit is allowed for only PAF 394 (Energy Policy) or POS 394 (Energy Policy) or SGS 315 or SGS 394 (Energy Policy) or SOS 315 or SOS 394 (Energy Policy)	
SOS 320 Society and Sustainability	3	F/S/SS/i	Two of following courses: SOS 100, 110, 111 (or PUP 190), SOS 300 with C or better	L or SB
SOS 321 Policy and Governance in Sustainable Systems	3	F/S	Two of following courses: SOS 100, 110, 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, 110, 111 (or PUP 190), SOS 300 with C or better	
SOS 324 Sustainable Energy Technology and Systems	3	F/S	Two of following courses: SOS 100, 110, 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, 110, 111 (or PUP 190), SOS 300 with C or better	

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SOS 326 Sustainable Ecosystems	3	F/S/SS/i	Two of following courses: SOS 100, 110, 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, 110, 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, GLG 102, GLG 110, GPH 111 or SES 121; MAT 117 or higher. Credit is allowed for only GLG 301, GLG 394 (Earth Sci in AZ & SW) or SOS 372	
SOS 373 Minerals, Energy, and Society	3	S	ENG 101 (or 105 or 107) with C or better; GLG 101 (or 102 or 110) or GPH 111 or SES 121 or Junior standing; Credit is allowed for only GLG 304, 394 (Minerals, Energy & Society) or SOS 373	
SOS 375 Humans and the Environment: What's the Connection?	3	F/S**	Minimum 45 hours; Credit is allowed for only ASB 375 or SOS 375 or ASB 394 (People: Environment Connections in Anthropology) or ASB 494 (Ecological and Environmental Anthropology)	(L or SB) + G
SOS 412 Conservation in Practice	3	S	Minimum 45 hours; Credit is only allowed for BIO 412 or SOS 412	
SOS 414 Urban and Environmental Health	3	F**/SS-study abroad	ASB 100, 102, 222, 223, AML 100, ASM 104, SOS 100, 110, 111, or SSH 100 with C or better; minimum 45 hours; Credit is allowed for only ASM 414 or SOS 414 or SSH 414	SB
SOS 429 Human Impacts on Ecosystem Functioning	3	S	BIO 320 (or SOS 326); Credit allowed for only BIO429, BIO528, SOS429, SOS528, or SOS494/598 (Human Impacts on Ecosys. Funct.) or BIO494/598 ((Human Impacts on Ecosys. Funct.)	
SOS 433 Sustainable Water Use	3	F**	May be repeated once for credit	
SOS 434 People and Nature Ecosystem Services	3	F**	MAT 117 or SOS 101; junior standing. Credit is allowed for only BIO 434, SOS 434, or BIO 494 (Ecosys Servcs:People&Nature)	
SOS 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 JUST 497 (Seminar in Human Rights) or SOC 455 or SOS 456	(L or SB) + G
SOS 476 Climate Science for Sustainability	3	F**	Minimum 45 hours; Credit is allowed for only GLG 476 or GLG 576 or SOS 476 or SOS 576 or GLG 494 (Climate Sci Sustain) or GLG 598 (Climate Sci Sustain) or SOS 494 (Climate Sci Sustain) or SOS 598 (Climate Sci Sustain)	
STP 420 Introductory Applied Statistics	3	F/S/SS/i	MAT210 (or MAT 251, 265 or 270) with C or better	CS

LEGEND

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