

# GLOBAL ENVIRONMENTAL SUSTAINABILITY INTERDISCIPLINARY MINOR



## THE WORLD IS CHANGING

As the global population nears 8 billion people, we need new ideas to address how we interact with our planet. How do we manage renewable resources to live within our planet's means? How do we provide education, meaningful work and sustenance for everyone? These are important questions for everyone to ask, no matter their major.

### HOW WE INTERACT WITH EACH OTHER AND THE WORLD IS VERY COMPLEX

Individual problems of sustainability are rarely simple. The complex interactions among the society, the economy and the environment require solutions that cross boundaries and involve creative, innovative thought. As science and engineering issues become more complex, interdisciplinary problem solving skills are needed to conquer them.

# Preparing today to make a difference for tomorrow

# WORKING TOWARDS SUSTAINABLE BUSINESSES, COMMUNITIES, AND THE ENVIRONMENT IS AN IMPORTANT GOAL

Companies, non-profit organizations, and researchers are increasing their focus on sustainable practices. The Global Environmental Sustainability (GES) Minor helps you understand what sustainability means, how the environment influences you, and how you can make society more sustainable.

#### THE MINOR IS AN IMPORTANT WAY TO BECOME INVOLVED IN YOUR FUTURE

The GES Minor is an interdisciplinary set of courses that builds upon your major to increase understanding of the problems and solutions that affect us all. Students take two required courses, GES 101 and the capstone, GES 470, along with five courses that they chose from a list of courses offered across campus. Classes come from four areas – Society and Social Processes, Biological and Physical Processes, Economy and Profitability, and Skills.

The School of Global Environmental Sustainability and the Student Sustainability Center have even more ways for you to connect. See more information regarding the minor at the SoGES Minor In Global Environmental Sustainability webpage or by contacting Dr. Dale Lockwood, SoGES Academic Coordinator, at GESadvising@colostate.edu / (970) 492-4070, or schedule an appointment using Calendly.

FACEBOOK.COM/GESMINOR | LINKEDIN: SoGES MINOR at CSU | INSTAGRAM: CSU.GES.MINOR

**SUSTAINABILITY.**COLOSTATE.EDU

The School of Global Environmental Sustainability is now proud to offer an interdisciplinary minor in Global Environmental Sustainability. The minor will provide students from across the University the opportunity to obtain a background in the interdisciplinary field of Global Environmental Sustainability including the physical and biological, economic, social and skills/methods pillars of sustainability.

### REQUIRED CORE COURSES KEY - F: FALL, S: SPRING, (E)/(O) EVEN/ODD YEARS, SS: SUMMER SESSION, O: MAY BE OFFERED ONLINE

Course Code	Course Name	Offered	Credits	Prerequisites
GES 101	Foundations of Env. Sustainability	F,S,O	3	
GES 470	Applications of Env. Sustainability	F,S,O	3	Must have completed 12 credits of GES Interdisciplinary Minor, Junior or Senior standing

### GROUP A. SOCIETY & SOCIAL PROCESSES SELECT ONE COURSE FROM THE FOLLOWING LIST

KEY - F: FALL, S: SPRING, (E)/(O) EVEN/ODD YEARS, SS: SUMMER SESSION, O: MAY BE OFFERED ONLINE

Course Code	Course Name	Offered	Credit	Prerequisites
AGRI/IE 116	Plants and Civilizations (AUCC 3E)	F,S	3	
ANTH 330	Human Ecology	F(E),O	3	(ANTH 100 or ANTH 200) and (ANTH 120 or BZ 101 or LAND/LIFE 220)
ANTH 415	Indigenous Ecologies & the Modern World	F,S,SS,O	3	
ANTH 453	Impacts on Ancient Environments	F	3	ANTH 140
ETST 256	Border Crossings: People/Politics/ Culture (AUCC 3E)	S	3	
GR 100	Introduction to Geography (AUCC 3C)	F,S,O	3	
GR 320	Cultural Geography	F(O),O	3	GR 100
HIST 355	American Environmental History	F,S,SS,O	3	3 credits of HIST; Completion 45 credits
HIST 470	World Env. History, 1500-Present	F	3	3 credits of HIST; Completion 45 credits
HORT/SOCR 424	Topics in Organic Agriculture	S(E)	3	AREC 202 or ECON 202; AREC 328; HORT 100 or SOCR 100; HORT 171/SOCR 171; SOCR 240
NR 320	Natural Resources History & Policy	F,S,SS,O	3	Junior standing
NR 425	Nat. Resource Policy & Sustainability	S	3	NR 320
PHIL 320	Ethics of Sustainability	F,S	3	
PHIL 345	Environmental Ethics	F,S	3	Sophomore standing
POLS 361	U.S. Environmental Politics & Policy	F,S,SS,O	3	POLS 101
POLS 362	Global Environmental Politics	F,S,SS	3	POLS 232
POLS 364	Air, Climate, and Energy Policy Analysis	F(E), O	3	Sophomore standing
POLS 442	Env. Politics in Developing World	F,S,SS	3	POLS 241
POLS 462	Globalization, Sustainability, and Justice	F,S,SS	3	POLS 232 or POLS 241
PSY316	Environmental Psychology	F,S, SS	3	PSY 100
SOC 220	Environment, Food & Social Justice (AUCC 3E)	F,S	3	
SOC 320	Population, Natural Resources, & Env.	F,O	3	SOC 100 or SOC 105
SOC 322	Introduction to Environmental Justice	F,S	3	SOC 100 or SOC 105
SOC 460	Society & Environment	S	3	SOC 100 or SOC 105
SOC 461	Water, Society, & Environment	F,S,SS,O	3	SOC 100 or SOC 105

## GROUP B. BIOLOGICAL & PHYSICAL PROCESSES SELECT ONE COURSE FROM THE FOLLOWING LIST

**KEY** - F: FALL, S: SPRING, (E)/(O) EVEN/ODD YEARS, SS: SUMMER SESSION, O: MAY BE OFFERED ONLINE

	Course Code	Course Name	Offered	Credits	Prerequisites
	ANTH 453	Impacts on Ancient Environments	F	3	ANTH 140
	BSPM 308	Ecology and Management of Weeds	F	3	BZ 120 or LIFE 103; CHEM 107 or CHEM 111
	BZ 471	Stream Biology and Ecology	F(O)	3	LAND/LIFE 220 or LIFE 320
	CHEM 338	Environmental Chemistry	F,S(O)	3	(CHEM 107 or CHEM 113 or CHEM 120 or CHEM 231 or CHEM 263) and (CHEM 241 or CHEM 245 or CHEM 341 or CHEM 345)
	ERHS 320	Environmental Health - Water Quality	F	3	MIP 300, may be taken concurrently
	ERHS 430	Human Disease & the Environment	F	3	(BMS 300 or BMS 360) and (MIP 300) and (STAT 301 or STAT 307)
	ERHS 448	Environmental Contaminants	F	3	CHEM 241 or CHEM 245 or CHEM 341 or CHEM 345
	GEOL 122	The Blue Planet: Geology of our Env. (AUCC 3A)	F,S	3	
	GR 100	Introduction to Geography (AUCC 3C)	F,S,O	3	
	GR/WR 204	Sustainable Watersheds (AUCC 3A)	F,S	3	
	GR/ESS 210	Physical Geography	F,S	3	
П	GR 410	Climate Change: Science, Policy, Impl.	S	3	3 credits of GR courses, Junior standing or higher
	HORT/SOCR 171	Environmental Issues in Agriculture (AUCC 3E)	F	3	
	LAND/LIFE 220	Fundamentals of Ecology (AUCC 3A)	F,O	3	(3 credits BIO or BZ or LIFE or HORT 100) and (3 credits of MATH)
	LAND 364	Design & Nature	F	4	LAND 361
	LAND 444	Ecology of Landscapes	S	3	LAND 220 or LIFE 220 or LIFE 320
	LIFE 320	Ecology	F,S	3	(BZ 101 or BZ 104 or BZ 110 or BZ 120 or LIFE 102) and (MATH 141 or MATH 155 or MATH 160)
	MATH/BZ 348	Theory of Population & Evolutionary Ecology	F	4	MATH 155 or MATH 160
	NR 120A	Environmental Conservation (AUCC 3A)	F,S,O	3	
	NR 130	Global Environmental Systems (AUCC 3A)	F,S	3	
	SOCR 341	Microbiology for Sustainable Agriculture	S(E)	1	SOCR 240
	SOCR 343	Composting Principles & Practices	F(O)	1	SOCR 240 and SOCR 350
	SOCR 440	Pedology	F	4	

# GROUP C. ECONOMY AND PROFITABILITY SELECT ONE COURSE FROM THE FOLLOWING LIST

KEY - F: FALL, S: SPRING, (E)/(O) EVEN/ODD YEARS, SS: SUMMER SESSION, O: MAY BE OFFERED ONLINE

Course Code	Course Name	Offered	Credits	Prerequisites
AREC 202	Agricultural & Resource Economics (AUCC 3C)	F,S,O	3	MATH 117, may be taken concurrently or MATH 118, or 124 or 125 or 126 or 141 or 155 or 159 or 160
AREC/ECON 240	Issues in Environmental Economics	F,S,SS,O	3	
AREC/ECON 340	Intro. Economics of Natural Resources	S,O	3	AREC 202 or ECON 202
AREC/ECON 346	Economies of Outdoor Recreation	F,O	3	AREC 202 or ECON 202
AREC 415	International Agricultural Trade	F,O	3	AREC 310 and ECON 204
AREC 442	Water Resource Economics	S	3	AREC 342 and ECON 306, may be taken concurrently
AREC 460	Ag and Resource Based Econ. Development	S,O	3	ECON 306
F322	Economics of the Forest Environment	F,S	3	AREC 202 or ECON 202 or AREC/ECON 240
MGT 360	Social & Sustainable Venturing	S	3	Junior standing or higher
NR 425	Natural Resource Policy & Sustainability	S	3	NR 320

KEY - F: FALL, S: SPRING, (E)/(O) EVEN/ODD YEARS, SS: SUMMER SESSION, O: MAY BE OFFERED ONLINE

Course Code	Course Name	Offered	Credits	Prerequisites
AREC 442	Water Resource Economics	S	3	AREC 342 and ECON 306, may be taken concurrently
ART 421	Art and Environment		3	ART 136 and ART 160 and ART 170 and ART 200 to 299 - at least 6 credits, Required field trips
CIVE 405	Sustainable Civil and Env. Engineering	S	3	CIVE 203 or STAT 315, Junior standing
CON/INTD 450	Travel Abroad - Sustainable Building	SS	3	
CON 476	Sustainable Practice - Design and Construction	F	3	Contact instructor if interested and not in Construction Management Major
HORT 344	Organic Greenhouse Production	S(E)	1	HORT 310, Must be completed with HORT 345
HORT/SOCR 345	Diag. & Treatment in Organic Fields	SS(E)	2	(BSPM 302 or BSPM 308 or BSPM 361) and (HORT 100 or SOCR 100) and (SOCR 240), Must be completed with HORT 344, Required field trips
HORT/LAND 368	Landscape Irrigation and Water Cons.	F,S	3	HORT 100 or LAND 110
LAND 364	Design and Nature	F	4	LAND 361
MATH/BZ 348	Theory of Pop. & Evolutionary Ecology	F	4	MATH 155 or MATH 160
NR 320	Natural Resources History & Policy	F,S,SS	3	Junior standing or higher
SOC 320	Population, Natural Resources, & Env.	F,O	3	SOC 100 or SOC 105
SOCR 440	Pedology	F	4	

#### **UPPER DIVISION ELECTIVE COURSE**

- Students must take an **upper division** elective course from Group A, B, C or D.
- The course must have a different subject code (e.g. AREC, NR, etc) than any course being used to satisfy the requirements of GROUPS A, B, C, or D or any GES course that is 300 or above.

#### **GES MINOR INFORMATION**

Students pursuing the GES Undergraduate Interdisciplinary Minor (IM) will be required to take GES 101 and GES 470. Further students must take 5 classes (15 credits), one each from group A, B, C, D plus an additional elective course from any single group. At least three classes from groups A, B, C and D must be taken from three different colleges. Some classes in the IM will fit into multiple groups. Such courses may only count towards one group. Students will not be allowed to take more than two classes with the same prefix throughout the entire minor (two courses with the same subject code is the max a student can take). Twelve of the 21 credits must be upper division (300 level or above) including GES470. GES 101 and 5 core courses are meant to be taken in sequence, meaning they should be taken before a student takes the GES 470. However, students must take GES 101 before taking GES 470.

TOTAL CREDITS FOR COMPLETION (MINIMUM OF 12 UPPER DIVISION CREDITS): 21 CREDITS

#### **CONTACT INFORMATION**

See more information regarding the minor at the <u>SoGES Minor In Global Environmental Sustainability webpage</u> or by contacting Dr. Dale Lockwood, SoGES Academic Coordinator, at <u>GESadvising@colostate.edu</u> / (970) 492-4070, or <u>schedule an appointment using Calendly.</u>

