ENVIRONMENTAL & Natural Resource Economics

Effective Fall 2011

College of the Environment & Life Sciences (CELS)

Department: Environmental and Natural Resource Economics
UC Advisors: Emi Uchida (emi@uri.edu 401-874-4586)—CELS students
Simona Trandafir (simona@ uri.edu 401-874-7428)—UC students
Credits: 120

The Major: The Environmental and Natural Resource Economics (ENRE) major is designed to give students an in-depth understanding of the interactions between the human society and the natural environment. This major combines economics and natural sciences to make us informed participants in the public debate on how to protect our natural resources such as tropical rain forests, safe drinking water, clean air, biodiversity, sustainable fisheries, endangered species, and other natural assets while also living sustainably. It also addresses important questions facing our global society: Why have humans caused widespread ecological impacts? How can we create a sustainable society that protects the environment while maintaining a high standard of living? How can we design policies to protect the global environment and simultaneously alleviate world poverty? These and other questions will be explored through economics and natural sciences.

Students may choose one of the following two options:

Option 1: Green Markets and Sustainability (GMS): Students in this option will study areas such as management of our international fisheries and other marine resources, optimal use of land and water resources, and how green markets can protect the environment while also helping to alleviate global poverty. This option is recommended for students who seek a career in businesses, governmental and non-governmental organizations in a wide range of environmental topics, including: green businesses, renewable energy, fisheries, coastal management, sustainable development, and others. It is also recommended for students planning to do graduate studies in environmental economics, or go to law school with an interest in environmental law or international disputes involving natural resources. The GMS option has a stronger focus on environmental economics than EEM, and at the same time allows considerable flexibility for students to sample broadly from courses across the University or to develop a related focus area (e.g., green business).

Option 2: Environmental Economics and Management (EEM). Students in this option will take classes that blend the natural, physical, and economic sciences. The option is recommended for students interested in biodiversity conservation, land and water conservation, natural hazards, and global climate change, and those seeking a career in government agencies and non-governmental organizations related to these environmental issues. EEM has a stronger emphasis on the environmental sciences and prepares students to analyze problems of natural resource management by having a broader understanding of relationships between the processes of the physical and biological world, and of economic systems.

The major in ENRE provides students with tools to weigh options and make important decisions concerning the protection, restoration, development, and use of our natural resources.

Career Options: This major prepares students for many different kinds of professional careers in the new "green" economy as well as graduate studies. Public officials, nonprofit organizations, and private businesses need professionals to integrate the ecological and natural science with the economic science aspects of their organizations. Some recent examples of ENRE alums' jobs include:

- Renewable energy companies, including Alteris Renewables in Providence, Environment Northeast and Boreal Renewable Energy in Boston;
- Electric vehicle regional sales manager for Datco—a large transportation company that sells commercial vehicles;
- Private sector environmental specialists on topics such as aquaculture, international forest products, global buying and selling in fisheries, and environmental restoration;
- Government agencies and NGOs environmentalists who design policies that protect the environment while promoting economic development of rural communities.

Transfer out of UC: Must have completed at least 24 credits, minimum GPA of 2.00, and received permission from the UC major advisor.

Environmental & Natural Resource Economics (ENRE), 120 CREDITS Effective FALL 2011

Department of Environmental & Natural Resource Economics

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STUDENT_____**ADVISOR**_____

General Education (36)
C: COM 100 _____(3),
CW: WRT 104/105 or 106 _____(3)
M: (3 cr. from Basic Sciences below)
N: (6 cr. from Basic Sciences below)
S: _____ (3) _____ (3)

(15 credits from L, A, and F)
L: _____ (3) _____ (3)
A: _____ (3) _____ (3)
F: _____ (3) _____ (3)

Intro. to URI (1)
URI 101 _____ (1)

Intro. Professional Courses (13)
NRS 100 _____ (3) EEC 105 _____(3)
GEO 103_____(4) EEC 205_____(3)

Communication (3)
In addition to the General Education requirements.
WRT _____(3)

Option 1 Green Markets & Sustainability (GMS)

Concentration (24) (300 Level or above)
ECN 328 or 323 _____(3) EEC 310 _____(3)
EEC 432 _____(3) _____(3)
_____(3) _____(3)
_____(3) _____(3)
At least 15 credits in EEC; 9 possible in ECN

Basic and Supporting Sciences* (24)
MTH _____(3) (131 recommended)
BIO101_____(4) BIO102_____ (4)
CHM 101,102____(4) *or* 103,105 ____ (4)
Choose from: AFS, AVS, BCH, BIO, CHM, CSC, STA, GEO, MTH, MIC, NRS, OCG, PHY, or PLS.

_____( )_____( )_____( )
*Six credits apply to Gen Ed Division N and three credits apply to Gen Ed Division M

Supporting Electives (21)

_____( )_____( )_____( )_____( )

_____( ) _____( ) _____( )

Free Electives (7)
_____( ) _____( )

Option 2. Environmental Economics and Management (EEM)

Basic Sciences* (32)
CHM 101, 102 ___(4) ***or*** 103, 105 ___(4)
BIO 101_____ (4) BIO 102 _____ (4)
NRS 212 _____(3) BIO 262_____(3)
PHY 109, 110 _____(4)
CHM 124, 126 _____ (4)
MTH 131_____(3) STA 308_____(3)
*Six credits apply to Gen Ed Division N and three credits apply to Gen Ed Division M

Concentration (24)

Environmental Economics (12)
EEC 310 _____(3) EEC 432 _____(3)

Plus two of the following (6):
EEC 345 _____ (3) EEC 350_____(3)
EEC 410 _____ (3) EEC 441_____(3)
EEC 440 _____ (3)

Core Sciences (12)
Any 4 courses from the following:

Ecology
NRS 301_____(3) NRS 304_____(3)
NRS 305_____(3) NRS 309_____(3)
NRS 324_____(3) NRS 402_____(3)
NRS 403_____(3) NRS 406_____(3)
NRS 407_____(3)

Soils and Watershed:
NRS 351_____(2) NRS 361 _____(4)
NRS 412_____(3) NRS 423,425____(4,1)
NRS 424_____(4) NRS 426 _____(3)
NRS 450 _____(3) NRS 452 _____(1)
NRS 471 _____(3)

Geosciences:
GEO 305_____(4) GEO 468_____(4)
GEO 482_____(4) GEO 483_____(4)
GEO 484_____(4)

Supporting Electives (14)

(See attached sheet for list of courses.)

_____ ( ) _____ ( ) _____ ( )
_____ ( ) _____ ( )

Free Electives (6)

_____ ( ) _____ ( )

120 credits required

Student Total_____

ADVISING COMMENTS:

ENRE Curricular Maps
Environmental and Natural Resource Economics

Option 1: Green Markets and Sustainability

Year 1

Fall Semester		Spring Semester	
Course	**Credits**	**Course**	**Credits**
URI 101 Traditions and Transformations	1	EEC 205 Resource Management and Conservation	3
EEC 105 Intro to Environmental Economics	3	BIO 102 Principles of Biology II	4
NRS 100 Natural Resource Conservation	3	GEO 103 Understanding the Earth	4
BIO 101 Principles of Biology I	4	COM 100 Communication Fundamentals	3
WRT 104/105/106 Writing	3	Gen Ed	3
	14		17

Year 2

Fall Semester		Spring Semester	
Course	**Credits**	**Course**	**Credits**
ECN 201 (S gen ed) Principles of Economics	3	ECN 328 Intermediate Microeconomics	3
CHM 103 Introductory Chemistry Lecture	3	MTH 111/131 Precalculus/Calculus	3
CHM 105 Laboratory for Chm 103	1	Supporting Elective	3
Supporting Elective	3	Gen Ed	3
Gen Ed	3	Gen Ed	3
Supporting Science Elective	3		
	16		15

Year 3

Fall Semester		Spring Semester	
Course	**Credits**	**Course**	**Credits**
EEC 310 Econ for Natural Resource Management	3	Concentration Elective	3
Concentration elective	3	Concentration Elective	3
Supporting Elective	3	Supporting Science Elective	4
Supporting Elective	3	Supporting Elective	3
Supporting Science Elective	3	Gen Ed	3
	15		16

Year 4

Fall Semester		Spring Semester	
Course	**Credits**	**Course**	**Credits**
Concentration Elective	3	EEC 432 Environmental Economics & Policy	3
Concentration Elective	3	Gen Ed	3
Supporting Elective	3	Supporting Elective	3
Writing Elective	3	Free Elective	3
		Free Elective	3
	12		15

ENRE Curricular Maps
Environmental and Natural Resource Economics
Option 2: Environmental Economics and Management

Year 1

Fall Semester		Spring Semester	
Course	**Credits**	**Course**	**Credits**
URI 101 Traditions and Transformations	1	EEC 205 Resource Management and Conservation	3
EEC 105 Intro to Environmental Economics	3	BIO 102 Principles of Biology II	4
NRS 100 Natural Resource Conservation	3	GEO 103 Understanding the Earth	4
BIO 101 Principles of Biology I	4	COM 100 Communication Fundamentals	3
WRT 104/105/106 Writing	3	Gen Ed	3
	14		17

Year 2

Fall Semester		Spring Semester	
Course	**Credits**	**Course**	**Credits**
ECN 201 (S gen ed) Principles of Economics	3	STA 308 Introductory Statistics	3
CHM 103 Introductory Chemistry Lecture	3	MTH 131 Calculus	3
CHM 105 Laboratory for Chm 103	1	Supporting Elective	3
NRS 212 Introduction to Soil Science	3	Gen Ed	3
Gen Ed	3	Gen Ed	3
BIO 262 Introductory Ecology	3		
	16		15

Year 3

Fall Semester		Spring Semester	
Course	**Credits**	**Course**	**Credits**
EEC 310 Ecn for Natural Resource Management	3	Concentration Elective	3
Concentration Elective	3	Concentration Elective	3
Concentration Elective	3	PHY 109 Introduction to Physics	3
CHM 124 Intro to Organic Chemistry	3	PHY 110 Laboratory for Introductory Physics	1
CHM 126 Laboratory for Chm 126	1	Supporting Elective	2
Supporting Elective	3	Gen Ed	3
	16		15

Year 4

Fall Semester		Spring Semester	
Course	**Credits**	**Course**	**Credits**
Concentration Elective	3	EEC 432 Environmental Economics and Policy	3
Concentration Elective	3	Gen Ed	3
Supporting Elective	3	Free elective	3
Writing Elective	3	Free elective	3
	12		12

ENVIRONMENTAL & NATURAL RESOURCE ECONOMICS
APPROVED LIST OF SUPPORTING ELECTIVES Effective Fall 2011

AFS 210	(3)	BIO 418	(3)	CPL 546	(3)	NRS 524	(2)
AFS 211	(1)	BIO 441	(3)	CSC 200	(3)	NRS 533	(3)
AFS 211	(1)	BIO 445	(3)	CSC 201	(3)	NRS 538	(3)
AFS 281	(3)	BIO 465	(3)	CSC 406	(3)	NRS 555	(2)
AFS 352	(3)	BIO 466	(3)	CVE 374	(3)	NRS 567	(3)
AFS 355	(2)	BIO 467	(3)	CVE 375	(1)	NRS 582	(1)
AFS 381	(3)	BIO 505	(3)	CVE 470	(4)	OCG 401	(3)
AFS 401	(3)	BUS 201	(3)	CVE 471	(3)	OCG 401	(2)
AFS 481	(2)	BUS 202	(3)	ECN 201	(3)	OCG 451	(3)
AFS 483	(3)	BUS 210	(3)	ECN 202	(3)	OCG 480	(3)
APG 405	(3)	BUS 212	(3)	ECN 327	(3)	OCG 561	(4)
APG 413	(3)	BUS 301	(3)	ECN 328	(3)	PHL 212	(3)
AVS 331	(2)	BUS 301	(3)	EEC 205	(3)	PHL 215	(3)
AVS 333	(1)	BUS 315	(3)	EEC 310	(3)	PHL 217	(3)
AVS 390	(3)	BUS 316	(3)	EEC 345	(3)	PHL 430	(3)
AVS 412	(3)	BUS 322	(3)	EEC 350	(3)	PLS 200	(3)
BCH 311	(3)	BUS 335	(3)	EEC 410	(3)	PLS 210	(1)
BCH 312	(2)	BUS 365	(3)	EEC 432	(3)	PLS 306	(3)
BCH 352	(3)	BUS 366	(3)	EEC 440	(3)	PLS 332	(3)
BIO 201	(3)	BUS 420	(3)	EEC 441	(3)	PLS 352	(3)
BIO 203	(3)	BUS 428	(3)	EEC 491	(1-3)	PLS 355	(1)
BIO 286	(3)	BUS 448	(3)	EEC 492	(1-3)	PLS 390	(3)
BIO 302	(3)	BUS 449	(3)	EEC 532	(3)	PLS 475	(4)
BIO 311	(3)	BUS 460	(3)	EEC 535	(3)	PSC 402	(3)
BIO 321	(3)	BUS 467	(3)	EEC595	(3)	PSC 403	(3)
BIO 323	(4)	BUS 468	(3)	NRS 426	(3)	STA 408	(3)
BIO 327	(3)	CHM 212	(4)	NRS 440	(3)	STA 409	(3)
BIO 329	(1)	CHM 226	(3)	NRS 450	(3)	STA 412	(3)
BIO 332	(4)	CHM 227	(2)	NRS 471	(3)	STA 520	(3)
BIO 341	(3)	CHM 228	(3)	NRS 475	(4)	STA 550	(3)
BIO 345	(3)	CHM 412	(3)	NRS 492	(1-3)		
BIO 346	(3)	CHM 414	(3)	NRS 495	(3)		
BIO 350	(3)	CHM 432	(2)	NRS 495	(1-3)		
BIO 352	(3)	CPL 202	(3)	NRS 497	(1-6)		
BIO 352	(3)	CPL 300	(3)	NRS 498	(1-3)		
BIO 354	(3)	CPL 410	(3)	NRS 505	(3)		
BIO 354	(3)	CPL 434	(3)	NRS 508	(1)		
BIO 360X	(3)	CPL 510	(3)	NRS 516	(3)		
BIO 381	(3)	CPL 537	(3)	NRS 520	(3)		
BIO 382	(1)	CPL 539	(3)	NRS 522	(3)		