

ENSP – Environment and Agriculture

Effective -- Fall 2016

Reviewed 8.2.16 - WW

ENSP Core				General Education		
				Fundamental Studies (15 credits)		
Course	Title	Offered	Grade	Requirements	Course	Cr
All				Academic Writing (AW)		3
ENSP101 (NS)	Intro to Env Science	Fa		Professional Writing (PW)		3
ENSP102 (HS)	Intro to Env Policy	Sp		Oral Communication (OC)		3
ENSP400 (SP)	Senior Capstone	Fa,Sp		Math (MA)	Calculus	3-4
Applied Science and Policy (one)				Analytical Reasoning (AR)	Statistics	
ENSP305	Quant. Methods	Sp		Distributive Studies (25 credits)		
ENSP330	Environmental Law	Fa, Sp		Requirements	Course	Cr
ENSP340	Sci, Ethics, Law: Water	Fa		Natural Sciences w/Lab (NL)	ENSP Lab Sci	4
ENSP342	Oceans: Integ. Policy	Sp		Natural Science (NS)	ENSP 101	3
ENSP350	Energy: Science & Policy	TBA		History and/or Social Sci (HS1)	ENSP 102	3
Calculus (one)			Grade	History and/or Social Sci (HS2)		4
MATH220 (MA)	Elementary Calculus	Fa,Sp,Su		Humanities (HU1)		3
MATH140 (MA)	Calculus I (<i>recommended</i>)	Fa,Sp,Su		Humanities (HU2)		3
Statistics (one)			Grade	Scholarship in Practice (SP, major)	ENSP 400	3
BIOM301 (AR)	Intro to Biometrics	Fa,W,Sp		Scholarship in Practice (SP, non-major)		3
GEOG306 (AR)	Intro to Quant Methods	Fa,Sp,Su,		I-Series (6 credits)*		
PSYC200 (AR)	Stat Methods in Psyc	Fa,Sp,Su		* May double-count with Distributive Studies		
Four (4) courses from the 5 groups below:				Requirements	Course	Cr
				I- Series (IS)		3
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				Diversity (4-6 credits)*		
				* May double-count with Distributive Studies		
Biology (req'd)			Grade	Requirements	Course	Cr
BSCI160/161 (NL)	Ecology & Evolution/Lab	Fa,Sp,Su		Understanding Plural Societies (UP)		3-6
Chemistry (req'd)			Grade	Understanding Plural Societies (UP) or Cultural Competency (CC)		0-3
CHEM131/132 (NL)	Gen Chemistry I/Lab	Fa,Sp,Su		Experiential Learning (0-3 credits)*		
Earth Sci (req'd)			Grade	* May overlap with major requirements		
ENST 200 (NL)	Princ of Soil Science	Fa		Requirements	Course	Cr
Economics (one)				Practical experience is <i>required</i> in this concentration		
AREC240 (HS)	Intro to Econ and Env	Sp		Graduation Requirements		
AREC241 (HS, IS)	Env, Econ, and Policy	Fa		_____ Up to 6 AP courses may be used for Gen Ed		
ECON200 (HS)	Princ of Microeconomics	Fa, Sp, W		_____ There are at least 40 non-overlapping Gen Ed credits		
Geography (one)				_____ No more than 60 credits earned from Community College		
GEOG130 (HS or SP)	Developing Countries	Fa,Su		_____ Last 30 credits must be earned at Maryland		
GEOG140 (IS)	Natural Disasters	Fa, Sp		_____ 120+ cumulative credits <i>and</i> 2.0+ cum GPA		
GEOG170 (NS)	Meth of Geospatial Anal	Fa				
GEOG202 (CC)	Intro to Human Geog	Sp				
ENSP Graduation Requirements						
_____ Students must earn C- or higher in all courses used for ENSP Core and Concentration requirements.						
_____ Students' major GPA must be 2.0 or higher.						

ENSP - Environment and Agriculture (cont'd)

REQUIREMENTS:

>>> Fundamentals and Background (18-19 credits):

Course	Description	Cr	Offered	Prerequisites	Grade
ANSC 101/103	Principles of Animal Science and Lab	3/1	F	Must be declared in ENSP-E&A	
BSCI 170/171	Cellular and Molecular Biology	4	F, Sp, Su	MATH 220 placement or higher	
BSCI 222 <i>or</i> PLSC 203	Genetics <i>or</i> Plants, Genes and Biodiversity	4 3	F, Sp, Su Sp	BSCI 170/171 and one year chemistry BSCI 170/171	
CHEM 231/232	Organic Chemistry I	4	F, Sp, Su	CHEM 131/132	
PLSC 101	Intro to Crop Science	4	F		

>>> Cartography, Remote Sensing, and GIS: Choose 2 courses (6 credits): *Grayed courses are no longer offered.*

Course	Description	Cr	Offered	Prerequisites	Grade
GEOG 475	Adv Computer Cartography	3	Sp	GEOG 373	
GEOG 372 <i>or</i> ENST 442	Remote Sensing <i>or</i> Remote Sensing of Ag and Nat Res	3	Sp, Su, W		
GEOG 472	Advanced Remote Sensing	3	Fa	GEOG 372	
GEOG 373 <i>or</i> ENST 415	Geographic Information Systems <i>or</i> GIS Applications in Soil Science	3 4	F, Su, W		
GEOG 473	Adv Geographic Information Systems	3	Sp	GEOG 373	

>>> Internship (3 credits):

Course	Description	Cr	Offered	Grade
ENSP 386	Internship	3-6	F, Sp, Su	

RESTRICTED ELECTIVES (15-19 credits): Choose five (5) courses in one area, which together with ENSP 386 provides integration and skill development (15-19 credits):

>>> Area 1. Crop production and plant protection

Course	Description	Cr	Offered	Prerequisites	Grade
BSCI 361	Ecology	4	F, Sp	BSCI 160/161	
BSCI 442 <i>or</i> PLSC 400	Plant Physiology <i>or</i> Principles of Plant Physiology	4 4	Sp Sp	BSCI 160/161 or 170/171 <i>and</i> CHEM231/232 BSCI 160/161 or 170/171 <i>and</i> CHEM231/232	
PLSC 420	Plant Pathology	4	F	CHEM 104 or 231/232, and ENST 201	
ENST 411	Soil Fertility	3	Sp	ENST 200	
ENST 413 <i>or</i> ENST 423	Soil-Water Conservation <i>or</i> Soil-Water Pollution	4 3	F F	ENST 200 and CHEM 104 or perm.	
ENST 441	Sustainable Agriculture	3	F		
PLSC 403	Crop Breeding	3	Sp	BSCI 222 or permission	
PLSC 406	Forage Crops	3	Sp	BSCI 170/171	
PLSC 407	Cereal and Oil Crops	3	F	BSCI 170/171 and PLSC 101	
PLSC 453	Weed Science	3	F		

>>> Area 2. Human dimensions

Course	Description	Cr	Offered	Prerequisites	Grade
AREC 306	Farm Management	3	F		
AREC 365	World Hunger, Pop, and Food Supplies	3	F, Sp		
AREC 445	Agri Devmt, Pop Growth, and Env	3	Sp	ECON 200, 201 and AREC326 or perm	
AREC 455	Land Use Economics	3	F	ECON 200, 201 and AREC326 or perm	
ECON 315	Econ Dev of Underdeveloped Areas	3	Sp	ECON 200 and 201 or perm.	
GEOG 312	Geog of US and Canada	3	Su		
GEOG 3xx	Regional Geog (Latin America; Africa, etc).	3	varies		
GEOG 431	Culture and Natural Resource Mgmt	3	F		
GVPT 306	Global Ecopolitics	3	Sp	GVPT 200	
ENST 440	Soils, Crops and Civilization	3	Sp		
ENST 441	Sustainable Agriculture	3	F		
PLSC 303	International Crop Production	3	Sp	BSCI 170/171	
SOCY 305 <i>or</i> SOCY 405	Scarcity in Modern Society <i>or</i> Scarcity in Modern Society	3 3	Sp Sp	3 cr SOCY or ENSP102	

>>> Advisor notes, approved course substitutions, etc.