

ENVIRONMENTAL SCIENCES – 8TH – 12TH GRADE TEACHING

127
BS.ENVR.8-12
Fall 2008-Spring 2009

Bachelor of Science

THE UNIVERSITY OF TEXAS AT BROWNSVILLE and TEXAS SOUTHWEST COLLEGE
COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY

Science 8-12 Certification

Student Name _____ ID # _____ Date _____

E-mail _____ Signature _____

Academic or Faculty Advisor _____ Date _____

GENERAL EDUCATION CORE	48 HOURS			MAJOR REQUIREMENTS	29 HOURS		
	HRS	GR	GPT		HRS	GR	GPT
COMMUNICATION REQUIREMENT	9 hours			PEDAGOGY & PROFESSIONAL RESPONSIBILITY	18 HOURS £		
ENGL 1301 Composition I	3	†		EDSC 4322 Human Development and Instruction			
ENGL 1302 Composition II <i>or</i> ENGL 2311 Technical Writing	3	†		EDSC 4324 Designing Inst. & Assess to Promote Student Lrng			
SPCH 1315 Applied Communications	3			EDSC 4325 Implementing Responsive Instruction & Assessm.			
				EDSC 4379 Teaching Science in 8-12 Classrooms			
MATH REQUIREMENT	3 hours			EDSC 4641 Student Teaching Secondary 8-12			
MATH 2413 Calculus I	3*	†					
				CORE COURSES FOR THE MAJOR	23 hours		
SCIENCE REQUIREMENT	8 hours			BIOL 3309 Ecology	3		
PHYS 1301 & PHYS 1101 General Physics I & Lab I	3,1			BIOL 3109 Ecology Laboratory	1		
PHYS 1302 & PHYS 1102 General Physics II & Lab II	3,1			ESCIU 2355 Natural Disasters	3		
				ESCI 3305 Oceanography	3		
HUMANITIES REQUIREMENT	6 hours			ESCI 3105 Oceanography Laboratory	1		
Literature (ENGL 2000 level)	3			ESCI 3334 Conservation of Natural Resources	3		
ARTS 1301 Art Appreciation <i>or</i> ARTS 1303 Art History <i>or</i>				ESCI 4301 Environmental Regulations	3		
MUSI 1306 Music Appreciation <i>or</i> MUSI 1308 Music Lit.	3			ESCI 4325 Environmental Sciences Internship	3		
				ESCI 4399 Research Problems in Environmental Sciences	3		
SOCIAL SCIENCE REQUIREMENT	12 hours						
HIST 1301 United States to 1877	3			RESTRICTED ENVIRONMENTAL SCIENCES ELECTIVES	6 hours		
HIST 1302 United States since 1877	3			Choose from Concentration listed on reverse:			
GOVT 2301 American and Texas Government	3			BIOLOGY, GEOSCIENCES, CHEMISTRY <i>or</i> INTERDISCIPLINARY			
GOVT 2302 American Government and Policy	3			(6 hours must be advanced 3000, 4000 level)			
					Advanced		
BEHAVIORAL SCIENCE REQUIREMENT	3 hours				Advanced		
GEOG 1303 General World Geography	3						
				SUPPORT COURSES	28 HOURS		
KINESIOLOGY REQUIREMENT	1 hour			ESCI 1301 Intro. To Environmental Sciences	3		
KINE 11____ (One hour of activity/health/wellness/fitness)	1			ECSI 1101 Intro. To Environmental Sciences Laboratory	1		
				BIOL 1306 General Biology I	3		
MODERN LANGUAGE REQUIREMENT	6 hours			BIOL 1106 General Biology Laboratory	1		
Six hours of same modern language, other than English				BIOL 1307 General Biology II	3		
	3			BIOL 1107 General Biology II Laboratory	1		
	3			GEOL 1303 Physical Geology	3		
				GEOL 1103 Physical Geology Laboratory	1		
				GEOL 1304 Historical Geology	3		
				GEOL 1104 Historical Geology Laboratory	1		
				CHEM 1311 General Chemistry I	3		
				CHEM 1111 General Chemistry I Laboratory	1		
				MATH 1342 Elementary Statistics	3		
				MATH 2413 Calculus	1*	†	
				LITERACY	3 HOURS £		
				EDLI 4351 Content Area Literacy	3		
				TOTAL CREDIT HOURS FOR GRADUATION	126		
				TOTAL ADVANCED HOURS (minimum)	36		

* MATH 2413-3 sch for general education and 1 sch for support courses.
† Grade of "C" or better is required for graduation.
£ Maintain a minimum of 2.50 GPA with a grade no lower than a C.

Restricted Environmental Sciences Electives
Choose 6 hours from one of the following concentrations:

BIOLOGY

Concentration:

BIOL 3303	Genetics	3
BIOL 3103	Genetics Lab	1
BIOL 3314	Invertebrate Zoology	3
BIOL 3114	Invertebrate Zoology Lab	1
BIOL 4302	Marine Zoology	3
BIOL 4102	Marine Zoology Lab	1
BIOL 4314	Plant Taxonomy	3
BIOL 4114	Plant Taxonomy Lab	1
BIOL 4309	Herpetology	3
BIOL 4109	Herpetology Lab	1
BIOL 4315	Mammalogy	3
BIOL 4327	Texas Coastal Ecology	3
BIOL 4127	Texas Coastal Ecology Lab	1
BIOL 4370	Topics in Biology	3
BIOL 4170	Lab Topics in Biology	1
BIOL 4422	Conservation Biology	4

CHEMISTRY

Concentration:

** Choosing upper-level Chemistry courses will add additional semester credit hours to the total hours required for this degree because of pre-requisites.

CHEM 3303	Biochemistry I	3
CHEM 3103	Biochemistry I Lab	1
CHEM 3305	Analytical Chemistry	3
CHEM 3105	Analytical Chemistry Lab	1
CHEM 3310	Physical Chemistry I	3
CHEM 3110	Physical Chemistry I Lab	1
CHEM 3312	Physical Chemistry II	3
CHEM 3112	Physical Chemistry II Lab	1
CHEM 4305	Instrumental Methods of Analysis	3
CHEM 4105	Instrumental Methods of Analysis Lab	1
CHEM 4306	Environmental Chemistry	3

GEOSCIENCES

Concentration:

GEOL 3436	Hydrology and Water Resources	4
GEOL 4335	Geomorphology	3
GEOL 4411	Sedimentation and Stratigraphy	4
GEOL 4431	Coastal Geology	4
GEOL 4440	Geographic Information Systems	4
GEOL 4441	Principles of Remote Sensing	4
GEOL 4350	Geosciences Field Excursion	3
GEOL 3333	Latin American Geography	3
ESCI 3351	Environmental Sciences Field Methods and Data Analysis	3
ESCI 4370	Topics in Environmental Sciences	3

INTERDISCIPLINARY

Concentration:

Any combination of 6 hours from the 3 concentrations listed above.