

SCHOOL OF NATURAL SCIENCE AND TECHNOLOGY			
Grado: DOCTOR IN PHILOSOPHY (PhD) Creditos: 56		CURRICULO Since: August 2018 (201901)	
Programa: ENVIRONMENTAL SCIENCES			
Descripción: Este programa puede tener énfasis en investigación con enfoque en Químico o Biológico. Consiste de un total de 56 créditos, de los cuales 17 son de cursos medulares sobre aspectos básicos de temas ambientales como agua, aire, suelo, legislación y diseño experimental; 18 créditos especialización, y 21 créditos son destinados a investigación.			
COURSE CODE	COURSE TITLE	CREDITS	REQUISITES
Core courses (17 credits)			
STAT 750	Experimental Design	3	STAT 505 or Equiv.
ENSC 751	Environmental Laws, Ethics and Public Policy	3	None
ENSC 752	Water Quality Management	3	None
ENSC 753	Soil Management	3	None
ENSC 754	Air Quality Management	3	None
ENSC 755	Graduate Seminar I	1	None
ENSC 756	Graduate Seminar II	1	ENSC 755
Specialization Courses (18 credits Level 700 800 900)			
ECON 700	Environmental Economics	3	None
ENSC 706	Wildlife Management	3	None
ENSC 707	Environmental Geology	3	None
ENSC 709	Environmental Management and Planning		None
ENSC 730	Solid Waste Management	3	None
ENSC 737	Renewable Energy Sources and Issues	3	None
ENSC 760	Hazardous Waste Operations and Emergency Response	3	None
ENSC 763	Environmental Evaluation	3	ENSC 751
ENSC 770	Classification and Characterization of Hazardous Waste	3	None
ENSC 790	Special Topics in Environmental Sciences	1-3	None
ENSC 839	Issues in Environmental Public Health	3	None
ENSC 841	Environmental Remediation	3	CHEM 221
ENSC 844	Environmental Biotechnology	3	None
ENSC 865	Environmental Toxicology	3	None
ENSC 901	Environmental Risk Assessment and Management	3	None
ENSC 902	Environmental Quality Indicators	3	None
ENSC 960	Biodiversity Conservation and Management	3	None
ENSC 992	Experimental Methods in Remediation	3	None
ENSC 995	Advanced Studies in Environmental Sciences	1-3	Advisor's Approval
BIOL 712	Applied Mycology	3	None
BIOL 713	Microbial Ecology	3	None
BIOL 843	Environmental Microbiology	3	BIOL320
BIOL 903	Ecology and Conservation of Natural Resources	3	
BIOL 914	Applied Tropical Botany	3	
BIOL 995	Advanced Studies in Environmental Biology	3	Advisor's Approval
BIOL 990	Experimental Microbiology	3	
CHEM 735	Environmental Chemical Analysis I	3	CHEM430 or equivalent

COURSE CODE	COURSE TITLE	CREDITS	REQUISITES
CHEM 736	Environmental Chemical Analysis II	3	CHEM 735
CHEM 850	Environmental Catalysis	3	None
CHEM 852	Materials for Pollution Control	3	CHEM 463-464
CHEM 861	Nanotechnology	3	None
CHEM 953	Environmental Electrochemistry	3	None
CHEM 954	Adsorption and Ionic Exchange in Solid Materials	3	None
CHEM 960	Instrumental Methods for Material Characterization	3	None
CHEM 962	Advanced Environmental Chemical Analysis	3	None
CHEM 995	Advanced Studies in Environmental Chemistry	3	None
Research required courses (21 créditos)			
ENSC 997	Doctoral Dissertation	21	Advisor's Approval
TEST 800C	Comprehensive Examination	0	Advisor's Approval

Los siguientes cursos de nivelación serán recomendados por el Comité de Admisiones de la Escuela, para fortalecer las bases del conocimiento ambiental y estadístico. Estos cursos no cuentan para el grado.

ENSC500	Fundamentals of Environmental Sciences	3
STAT 505	Statistics as an Instrument in Research	3

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Course Code	Course Title	Credits	Requisites
FIRST YEAR - FIRST SEMESTER			
ENSC752	Water Quality Management	3	None
ENSC754	Air Quality Management	3	None
ENSC755	Graduate Seminar I	1	None
FIRST YEAR - SECOND SEMESTER			
ENSC751	Environmental Laws, Ethics, and Public Policy	3	None
ENSC753	Soil Management	3	None
ENSC756	Graduate Seminar II	1	ENSC 755
SECOND YEAR - FIRST SEMESTER			
ENSC, CHEM, BIOL	Specialization Course (700-800 Level)	3	
ENSC, CHEM, BIOL	Specialization Course (700-800 Level)	3	
SECOND YEAR - SECOND SEMESTER			
STAT750	Experimental Design	3	STAT505 or Equiv.
ENSC997	Doctoral Dissertation	3	Advisor's Approval
TEST800C	Comprehensive Examination	0	Advisor's Approval
THIRD YEAR - FIRST SEMESTER			
ENSC997	Research Proposal Preparation	3	Advisor's Approval
ENSC, CHEM, BIOL	Specialization Course (700-800 Level)	3	
THIRD YEAR - SECOND SEMESTER			
ENSC997	Doctoral Dissertation	3	Advisor's Approval
ENSC, CHEM, BIOL	Specialization Course (900 level)	3	
FOURTH YEAR - FIRST SEMESTER			
ENSC997	Doctoral Dissertation	3	Advisor's Approval
ENSC, CHEM, BIOL	Specialization Course (900 level)	3	
FOURTH YEAR – SECOND SEMESTER			
ENSC 997	Doctoral Dissertation	3	Advisor's Approval
ENSC, CHEM, BIOL	Specialization Course (900 level)	3	
FIFTH YEAR – FIRST SEMESTER			
ENSC 997	Doctoral Dissertation	3	Advisor's Approval
FIFTH YEAR – SECOND SEMESTER			
ENSC 997	Doctoral Dissertation (Remaining credits to complete 21)	3	Advisor's Approval