

Courses for PhD Students in Environmental Toxicology-72 Hours

Recommended Pre-Admission Classes	TTU Equiv.	Credit Hours
Principles of Chemistry I and II	Chem 1307, 1308	6
Principles of Chemistry I and II Labs	Chem 1107, 1108	2
Organic Chemistry I and II	Chem 3305, 3306	6
Organic Chemistry I and II Labs	Chem 3105, 3106	2
Molecular Biochemistry or	Chem 4303	3
Comparative Animal Physiology	Zool 4409	3
General Physics I and II	Phys 1306, 1307	6
Experimental General Physics I and II Labs	Phys 1103, 1104	2
Calculus I and II	Math 1351, 1352	6
Biology I and II	Biol 1403, 1404	8
Populations, Communities, and Ecosystems	Biol 3309	3

Core Courses		Credit Hours
TOX 6105	Introductory Seminar in Environmental Toxicology	1
TOX 6115	Interdisciplinary Seminar in Environmental Toxicology	6
ENTX 6325	Principles of Toxicology I	3
ENTX 6326	Principles of Toxicology II	3
ENTX 6445	Chemical Sources and Fates in the Environment	3
ENTX 6385	Methods of Statistical Applications in Environmental Toxicology	3
ENTX 6100	Methods of Statistical Applications in Environmental Toxicology Lab	1
ENTX 8000	Doctor's Dissertation	12

Total Hrs:	32
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Technical Broadening Courses		
ENTX 6351	Analytical Toxicology	3
ENTX 6431	Biomarkers in Toxicology	4
ENTX 6365	Fundamentals of Aquatic Ecotoxicology	3
ENTX 6367	Advanced Wildlife Toxicology	3
ENTX 6366	Advanced Environmental Toxicology	3
ENTX 6371	Procedures and Techniques in Eco. Risk Assess.	3
ENTX 6344	Pesticides in the Environment	3
GPHM 5303	Principles of Pharmacology	3
GPHM 5336	Molecular and Cellular Pharmacology	3
GPHY 6304	Health Effects of Environmental Pollutants	3
PSS 5324	Mode and Mechanism of Herbicide Action	3
CE 5364	Groundwater Transport Phenomena	3

Total Hrs:	3 to 4
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Applied Broadening Courses		
ENVE 6023	Environmental Law and Policies	3
CE 5396	Environmental Impact Analysis	3
CE 5398	Risk Management and Public Policy	3
ENTX 6391	Modeling and Simulation in Exotoxicology	3
ENTX 6381	Quality and Ethics in Science	3
HIST 5326	Studies in American Environmental History	3

Total Hrs:	3
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Labs		
ENTX 6351	Analytical Toxicology and Lab	5
ENTX 6431	Biomarkers in Toxicology	4

Total Hrs:	4 to 5
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Elective Courses	Credit Hours	
BIOL 5302	Advanced Cell Biology	3
BIOL 5309	Advanced Ecology	3
BIOL 5310	Advanced Community Ecology	3
BIOL 5320	Advanced Molecular Biology	3
BIOL 6302	Advanced Developmental Biology	3
BIOL 6315	Regulation of Gene Expression	3
BIOL 6408	Research Techniques in Electron Microscopy	4
CE 5363	Groundwater Hydrology	3
CE 5364	Groundwater Transport Phenomena	3
CE 5396	Environmental Impact Analysis	3
CE 5398	Risk Management and Public Policy	3
CHEM 5301	Advanced Inorganic Chemistry I	3
CHEM 5302	Advanced Inorganic Chemistry II	3
CHEM 5314	Advanced Analytic Chemistry	3
CHEM 5330	Biochemistry I	3
CHEM 5331	Biochemistry II	3
CHEM 5334	Topics in Biological Chemistry	3
CHEM 5337	Enzymes	3
ENTX 6361	Environmental and Wildlife Toxicology	3
ENTX 6351	Analytical Toxicology	3
ENTX 6351	Analytical Toxicology Lab	2
ENTX 6431	Biomarkers in Toxicology	4
ENTX 6365	Fundamentals of Aquatic Ecotoxicology	3
ENTX 6367	Advanced Wildlife Toxicology	3
ENTX 6391	Modeling and Simulation in Ecotoxicology	3
ENTX 6366	Advanced Environmental Toxicology	3
ENTX 6371	Procedures and Techniques in Ecol. Risk Assess.	3
ENTX 6341	Pesticides in the Environment	3
ENTX 6381	Quality and Ethics in Science	3
ENTX 6385	Statistical Applications in Environmental Sciences	3
ENTX 6100	Graduate Seminar	1
ENVE 5304	Environmental Law and Policies	3
GANM 5309	Biology in Reproductions	3
GANM 5311	Embryology	3
GPHM 5336	Molecular and Cellular Pharmacology	3
GPHY 6341	Renal Physiology	3
GPHY 6304	Health Effects of Environmental Pollutants	3
HIST 5326	Studies in American Environmental History	3
MBIO 5403	Immunology	4
MBIO 6309	Advanced Immunology	3
PSS 5324	Mode and Mechanism of Herbicide Action	3
PSS 6332	Advanced Soil Chemical Properties	3
RWFM 5316	Waterfowl Ecology	3
RWFM 5324	Physiological Ecology of Aquatic Organisms	3
RWFM 5402	Fisheries Ecology	4
ZOOL 5304	Comparative Endocrinology	3
ZOOL 5306	Advanced Mammology	3
ZOOL 5308	Advanced Ornithology	3
ZOOL 5312	Advanced Animal Behavior	3
ZOOL 5401	Animal Histology for Advanced Students	4
ENTX 7000	Research	variable

Total Credit Hours of Elective Coursework:	29 to 31
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