

Graduate Certificate in Water, Environment and Development Studies

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The goal of the Graduate Certificate in Water, Environment, and Development Studies is to provide students with a multidisciplinary education in the occurrence, characteristics, and management of water resources in South Florida and internationally. Students will learn about the natural occurrence and dynamics of surface and ground water, the key biological and chemical factors affecting water resource quality, and the fundamental linkages between water and development. The graduate certificate program promotes an integrated understanding of the theoretical and practical elements of water resources management.

Certificate Requirements

The Graduate Certificate Program requires the successful completion of 15 credit hours of graduate course work. Students must maintain an average GPA of 3.0 or above and must earn a “C” or above in all courses counting toward the certificate. All students in the program are required to take one foundation course and at least one course from both the natural science and social science lists below. The remaining 6 credits may be satisfied with any combination of approved courses listed below.

Required Foundation Course

EVR 5332 Integrated Solutions for Water in
Environment and Development 3

Natural Science, Engineering, and Public Health Courses

(all students must take at least one)

PCB 4301 Freshwater Ecology 3

EVR 5215 Water Resources Assessment 3

EVS 5145 Ecotoxicology 3

GLY 5245 Water-Rock Interaction 3

GLY 5266 Stable Isotope Biogeochemistry 3

PCB 5307 Limnology 3

EVR 5320 Environmental Resources
Management 3

GLY 5827 Hydrogeology 3

BOT 5406 Algal Physiology 3

ENV 5517* Design of Wastewater
Treatment Plants 3

ENV 5666* Water Quality Management 3

GLY 5754 Applied Remote Sensing
in the Earth Sciences 3

CHM 5765 Aquatic Chemistry 3

GLY 5826 Hydrogeologic Modeling 3

GLY 5827 Hydrogeology 3

GLY 5828 Chemical Hydrogeology
and Solute Transport 3

EVR 5905 Independent Study 3
(or any other independent study from
other departments)

EVR 6056 GIS in Water Resources 3

CWR 6125 Groundwater Hydrology 3

CHM 6340* Organic Geochemistry 3

CWR 5140C* Ecohydrology 3

ENV 6615 Environmental Impact
Assessment 3

GLY 6896	Advanced Topics in Hydrology	3
EVR 7329	Watershed Analysis and Management	3

*Engineering graduate courses are offered for graduate students with a relevant engineering background or other students meeting needed prerequisites and applicable criteria. Students must confirm their eligibility, in advance to any registration, with either the Civil and Environmental Engineering Graduate Program Director and the responsible instructor.

Social Science and Public Health Courses

(all students must take at least one)

CPO 5036	Politics of Development	3
SYD 5045	Population and Society	3
INR 5352	Environment and Security	3
EVR 5355	Environmental Resource Policy	3
ANG 5267	Environmental Anthropology	3
INR 5409	International Law I	3
SYP 5447	Development and Post-Development	3
INR 5507	International Organizations	3
INR 5607	International Relations and Development	3
INR 6056	Environment and Development	3
SYD 6236	International Migration and Refugees	3
PHC 6315	Introduction to Environmental Health	3
EVR 7322	Methods of Sustainable Resource Management	3
PHC 6410	Health Behavior and Public Health	3
PHC 6425	Legal and Regulatory Aspects of Environmental Health	3
PHC 6520	Public Health Aspects of Foodborne Diseases	3
PHC 6115	Global Perspectives of Env Health in the Caribbean and Latin America	3

Seminar Requirements

Students are expected to attend at least five seminars during each semester that they are enrolled in the Certificate Program. Early in each semester, students will be provided with a schedule of water-related seminars offered in departments across campus. The departments of Biology, Chemistry and Biochemistry, Civil and Environmental Engineering, Earth and Environment, Environmental and Occupational Health, Global and Sociocultural Studies, and Politics and International Relations each sponsor seminar series that commonly include water-related topics. Students are also be required to give a presentation on a water-related theme in a departmental seminar or professional conference.