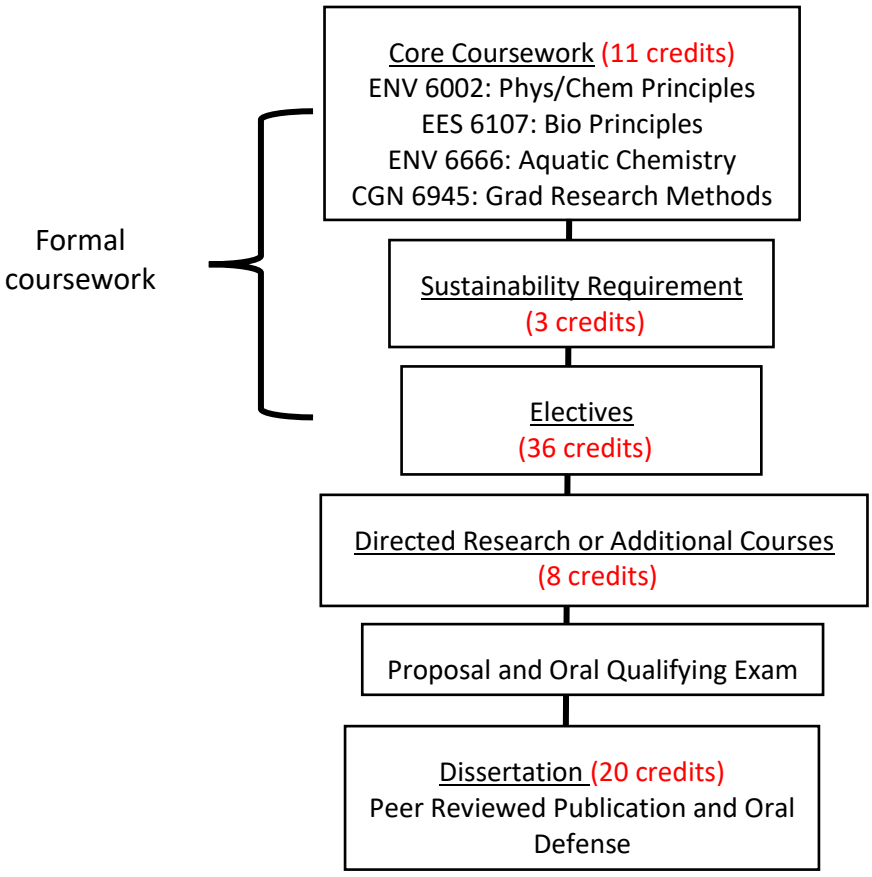
PhD Environmental Engineering Course Registration Guide and Program of Study Form

In the CEE department at USF, graduate students are expected to know their program requirements and register themselves for classes using Oasis. The staff class search feature will help you to search for open classes (https://usfweb.usf.edu/DSS/StaffScheduleSearch). When using this tool, be sure to enter the correct Term, Department, Level (e.g., graduate/undergraduate), and Status (open). The following graphic shows the structure of the PhD program:



Total Credits Required:

78 Credits - students without an approved master's degree
48 credits - students with an approved master's degree

Core Course Requirements (11 credits) - These courses are required for every Environmental Engineering PhD student. Note that Phys/Chem Principles and Bio Principles are normally taught in the fall semester and Aquatic Chemistry is normally taught in the spring semester. Graduate Research Methods is normally taught in both the fall and spring semesters. Students should not sign up for Graduate Research Methods until they are writing their proposal and preparing for their qualifying exam.

- ENV 6002 Physical & Chemical Principles in Environmental Engineering (3 credits)
- EES 6107 Biological Principles in Environmental Engineering (3 credits)
- ENV 6666 Aquatic Chemistry (3 credits)
- CGN 6945 Graduate Research Methods (2 credits)

Sustainability Course (3 credits) - choose one from the following**:**

- ENV 6617 Green Engineering for Sustainability (3 credits)
- ENV 6070 Resilient and Sustainable Infrastructure (3 credits)
- ENV 6510 Sustainable Development Engineering (3 credits)
- CGN 6933 ENVISION Sustainable Communities (3 credits)

Electives (36 credits) - Electives are grad level classes that you are free to select based on your interests and career goals. You may select additional courses in your concentration area, CEE courses outside your concentration area or classes in another department (e.g., GIS, Engineering Management, Geosciences, Public Health, Mathematics). Students may use credits from the Engineering for International Development (EFD) concentration to meet this requirement – see below for requirements.

Independent Study (up to 9 credits) - Up to 9 credits of Independent Study (IS) may be taken to meet concentration or elective requirements. IS credits may be used for the following: 1) students sit in on an undergraduate course and receive graduate credit by doing additional work, 2) a student or group of students can study a topic under the direction of a faculty member, 3) students may work on a project with a faculty member and write a report (this is similar to a thesis but normally not as extensive). Students must write a proposal and submit a registration form to sign up for IS credits.

Additional Credits (8 credits) - An additional 8 credits of coursework or directed research is required.

Dissertation Credits (20 credits) - A minimum of 20 credits of dissertation, an approved PhD dissertation and a dissertation defense are required. Students may not sign up for dissertation credits until they have defended their proposal and advanced to candidacy.

Masters along the way - PhD students who enter the program without a master's degree will normally file for a Master's Along the Way after they have completed the requirements for either the thesis or non-thesis master's degree. Please refer to the program of study for the master's degree to make sure that you have fulfilled all the degree requirements. Students who have completed a MS degree prior to joining the PhD program at USF may apply up to 30 credits of coursework from their master's degree toward the coursework requirements for the PhD. This includes up to 6 credits of master's thesis.

Doctoral dissertation committee - The PhD Committee consists of at least five members, three in the student's academic area, one who is a member of the College of Engineering outside Civil & Environmental Engineering, and one outside the College of Engineering. Note that student's must submit a CV and justification for any proposed committee member who is not a member of the graduate faculty of USF. An Outside Chair is required for the dissertation defense.

Qualifying Exam - Doctoral students must pass a qualifying exam no later than one semester following completion of 48 credits of coursework beyond a bachelor's degree. At minimum, the exam will include a written dissertation proposal and oral defense by the dissertation committee. A written exam in the area of concentration may also be required. Poor performance on the qualifying exam based on the judgment of the committee may result in the student failing the exam. If a student does not pass on the first attempt, he/she may request in writing to repeat the exam. Students who fail the second time will be dismissed by the program.

Publication Requirement - The department requires that all doctoral students have a paper accepted to a peer reviewed journal or conference. Please discuss this with your advisor early as it can take six months or more to receive review comments back from a journal. Many faculty members in the department require their students to have more than one paper accepted.

Concentration Requirements (15 credit hours minimum)

Engineering for International Development

Students must engage in full-time global training and service as part of the concentration (e.g., in the U.S. Peace Corps, with a non-governmental organization, or equivalent). This work must be incorporated into the student's dissertation. Students may register for CST 6990 for 0 credit hours while in their country of service.

- ENV 6510 Sustainable Development Engineering Credit Hours: 3

A minimum of 1 course from the following applied anthropology courses: (3 Credit Hours)

- ANG 6766 Research Methods in Applied Anthropology
- ANG 6730 Socio Cultural Aspects of HIV/AIDS
- ANG 6469 Selected Topics in Medical Anthropology: Health, Illness and Culture

A minimum of one course from the following global public health courses: (3 Credit Hours)

- PHC 6764 Global Health Principles and Contemporary Issues
- PHC 6761 Global Health Assessment Strategies

6 additional graduate level credit hours of coursework in international development engineering or closely related areas.

Recommended Electives Outside of CEE Department

Below is a list of recommended **elective courses** outside of the CEE Department that may be of interest. Course descriptions are available on the USF Graduate Catalog or USF Course Inventory.

- EIN 5182 Principles of Engineering Management (3 credits)
- GIS 5049 GIS for Non-Majors (3 credits)
- GIS 6100 Geographic Info Systems (3 credits)
- GIS 6355 Water Resources GIS (3 credits)
- IDS 6233 Concepts of Sustainability (3 credits)
- IDS 6234 Systems Thinking (3 credits)
- IDS 6245 Sust. Water Res. Management: Doing More With Less (3 credits)
- IDS 6246 Water Sensitive Urban Design (3 credits)
- IDS 6247 Water Resources Planning (3 credits)
- IDS 6276 Food/Energy/Water (FEW) Nexus (3 credits)
- PHC 6050 Biostatistics I (3 credits)
- PHC 6761 Global Health Assessment Strategies (3 credits)
- STA 6205 Design of Experiments (3 credits)
- ANG 6020 Environmental Justice (3 credits)
- PHC 6377 Hazardous Materials and Comm (3 credits)
- ANG 6766 Research Methods in Applied Anthropology (3 credits)
- ANG 6730 Socio Cultural Aspects of HIV/AIDS (3 credits)
- ANG 6469 Selected Topics in Medical Anthropology: Health, Illness and Culture (3 credits)
- PHC 6764 Global Health Principles and Contemporary Issues (3 credits)

PhD EVE Program of Study Form

Name:					
UID:					
Admission Term:					
Email:					
Address:					
Phone:					
Major Professor(s)					
MS Degree (if applicable)	**University**		**Field of Study**		**Date**
Course Title	**Course Number**	**Credits**	**Semester Taken**	**Outside CEE?**	**Grade**
Core Coursework (11 credits):					
Biological Principles in EVE	EES 6107	3			
Physical/Chemical Principles in EVE	ENV 6002	3			
Aquatic Chemistry	ENV 6666	3			
Graduate Research Methods	CGN 6945	2			
Sustainability requirement (3 credits) – one course from the following:					
Green Engineering for Sustainability	ENV 6617	3			
Resilient and Sustainable Infrastructure	ENV 6070	3			
Sustainable Development Engineering	ENV 6510	3			
ENVISION Sustainable Communities	CGN 6933	3			
An additional 36 credits of coursework (may include courses taken for the masters' degree and courses taken for EFD concentration) - includes a maximum of 9 credits Independent Study and 6 credits thesis. No Directed Research.					

8 additional credits of directed research, coursework, or dissertation:					
Dissertation (minimum of 20 credits)					
Total credits of coursework (≥ 48 including 6 credits of thesis)					
Total credits of Independent study (≤9)					
Total credits (≥78)					

Notes for the GPD:

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Major Professor signature Date Grad Progr. Director signr. Date