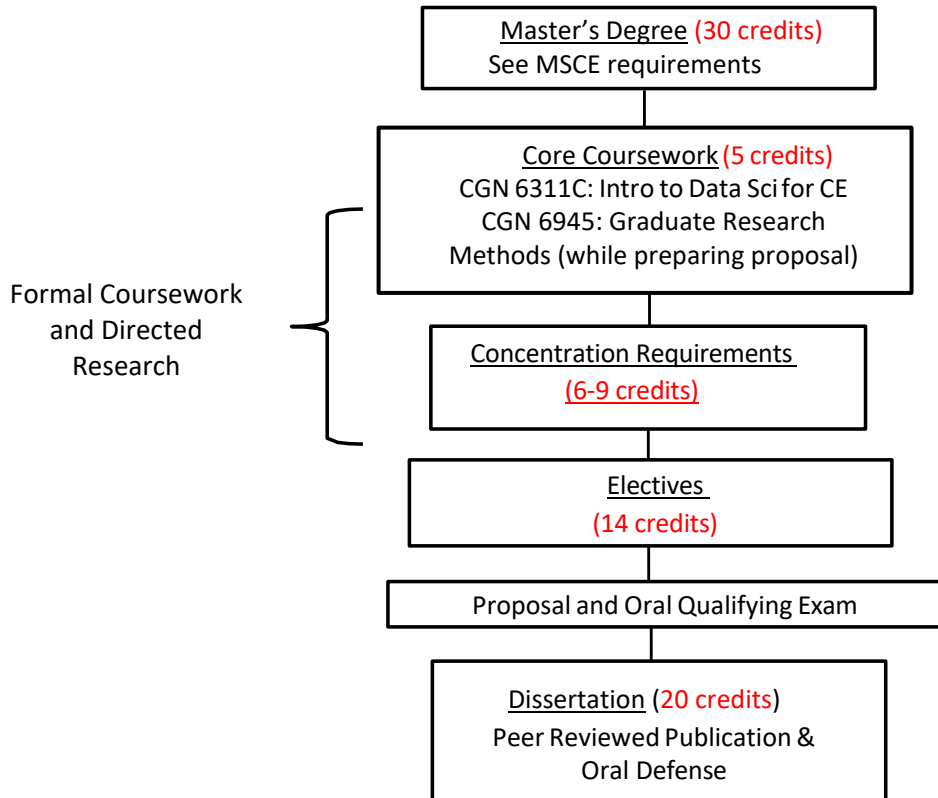


**Course Registration Guide and Program of Study Form for students in the  
PhD Civil Engineering in Engineering for International Development or Water Resources Concentrations**

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 Minimum Credits Required:**

75 Credits -students without an approved master's degree

45 credits - students with an approved master's degree

This Program of Study form is applicable to students who entered the program after Fall 2024. ***If you entered the program before Fall 2024, please find the correct form on the Graduate CEE Canvas page.***

**Master's Degree (30 credits)** - See the [MSCE requirements](#). This requirement may be fulfilled by a Master's degree obtained in one of the following cases: 1) Approved MS completed at another institution, 2) Approved MS completed at USF, 3) MS completed "Along the Way" of PhD program (see below).

**Master's 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.

**Core Courses (5 credits)** - These courses are required for every PhD student. Note that both classes are normally taught in both the fall and spring semesters. Students should sign up for Graduate Research Methods when they are writing their proposal and preparing for their qualifying exam. Students who took either or both core courses previously (e.g., as part of an MSCE degree at USF) can substitute for 5 additional credits of electives to meet the credit requirement.

- CGN 6311C Introduction to Data Science for Civil Engineers (3 credits)
- CGN 6945 Graduate Research Methods in CEE (2 credits)

**Concentration Requirements (6-9 credits)** - Concentrations are offered in Engineering for International Development and Water Resources Engineering (see below for requirements).

**Electives (14 credits)** - Electives are grad level classes that you are free to select based on your interests, research, and career goals. You may select additional courses in your concentration area, CEE courses outside your concentration area (e.g., Water Resources students can take Transportation classes) or classes in another department (e.g., GIS, Engineering Management, Geosciences, Public Health, Mathematics). Please discuss these with your advisor.

**Independent Study (up to 9 credits)** - Up to 9 credits of Independent Study (IS) may be taken to meet elective requirements. This includes IS credits taken during an MS degree. For example, if 3 credits of IS were applied towards an MS degree, only 6 additional IS credits can be used to fulfill PhD 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.

**Directed Research (up to 9 credits)** – Up to 9 credits of Directed Research may be taken to meet the elective requirement. Although students often take more than 9 credits of Directed Research, only 9 credits will be applied to the degree requirements. Students take Directed Research credits before presenting their qualifying exam, while working on a project under supervision. Students must submit a [registration form](#) to sign up for Directed Research credits.

**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.

**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 students 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. The Outside Chair should be a member of the graduate faculty of USF and be from a department other than CEE. The role of the Outside Chair is to oversee the doctoral 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, they 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**

### ***Engineering for International Development (9 credits)***

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

### ***Water Resources (6 credits)***

2 courses (6 credit hours) from the following list:

- CWR 6305 Urban Hydrology
- CWR 6535 Hydrologic Models
- CWR 6105 Vadose Zone Hydrology
- CWR 6625 Ecological Engineering
- CWR 6820 Coastal Waves and Structures
- ENV 6564 Environmental and Water Resources Engineering Design
- CGN 6933 Special Topics in CEE: Advanced Numerical Methods
- CGN 6933 Special Topics in CEE: Water Resources Sustainability
- CGN 6933 Special Topics in CEE: Environmental Fluid Mechanics
- CGN 6933 Special Topics in CEE: Water Resources Engineering

## 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. Students who wish to apply a course from outside CEE to their concentration requirements should consult with the Graduate Program Director. No more than 12 credits outside CEE Department can be used to meet the MSCE requirement.

- CHM 6938 Functional Porous Materials (3 credits)
- ECO 6424 Econometrics I (3 credits)
- EIN 5182 Principles of Engineering Management (3 credits)
- EIN 6108 Engineering Mgmt.- Human Relations (3 credits)
- EIN 6458 Applied Lean Six Sigma (3 credits)
- ESI 6491 LP & Network Optimization (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 6207 Renewable Fuels (3 credits)
- IDS 6233 Concepts of Sustainability (3 credits)
- IDS 6234 Systems Thinking (3 credits)
- IDS 6235 Econ & Fin for Sustainability (3 credits)
- IDS 6239 Six Sigma for Sustainability (3 credits)
- IDS 6245 Sust. Water Res. Management (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)
- URP 5277 GIS for Urban & Regional Planners (3 credits)
- URP 6201 Quantitative Analysis in Urban Regional Planning (3 credits)
- URP 6235 Lidar Field Methods (3 credits)
- URP 6256 Urban Spatial Analysis (3 credits)
- URP 6316 Land Use Planning (3 credits)
- URP 6401 Resilient Communities (3 credits)
- URP 6406 Urban Environmental Policy (3 credits)
- URP 6549 Urban & Metropolitan Economic Development Strategies (3 credits)
- URP 6711 Multimodal Transport Planning (3 credits)
- URP 6930 Special Topics in URP: GIS II Urban Spatial Analysis (3 credits)
- URP 6930 Special Topics in URP: Mobile Lidar Field Methods (3 credits)
- URP 6930 Special Topics in URP: Terrestrial LiDAR Field Method (3 credits)
- URP 6930 Special Topics in URP: Transportation Policy & Economy (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 CE Program of Study Form**

|  |                      |                |                       |                     |              |
|--|----------------------|----------------|-----------------------|---------------------|--------------|
| <b>Name:</b>   |                      |                |                       |                     |              |
| <b>UID:</b>  |                      |                |                       |                     |              |
| <b>Admission Term:</b>   |                      |                |                       |                     |              |
| <b>Email:</b>  |                      |                |                       |                     |              |
| <b>Address:</b>  |                      |                |                       |                     |              |
| <b>Phone:</b>  |                      |                |                       |                     |              |
| <b>Major Professor(s)</b>  |                      |                |                       |                     |              |
| <b>MS Degree:</b>  | <b>University</b>    |                | <b>Field of Study</b> |                     | <b>Date</b>  |
|  |                      |                |                       |                     |              |
| <b>Course Title</b>  | <b>Course Number</b> | <b>Credits</b> | <b>Semester Taken</b> | <b>Outside CEE?</b> | <b>Grade</b> |
| <b>Core Coursework 5 credits*</b>  |                      |                |                       |                     |              |
| Intro to Data Science for CE   | CGN 6311C            | 3              |                       |                     |              |
| Grad Research Methods  | CGN 6945             | 2              |                       |                     |              |
| <b>Concentration Requirements 6-9 credits</b>                                    |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
| <b>Electives 14 credits (may include independent study or directed research)</b> |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
| <b>Dissertation (minimum of 20 credits)</b>                                      |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |
|  |                      |                |                       |                     |              |

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| <b>Total credits of coursework (<math>\geq 45</math>)</b>                    |  |  |  |  |  |
| <b>Total credits of Independent Study (<math>\leq 9</math> including MS)</b> |  |  |  |  |  |
| <b>Total credits (<math>\geq 75</math>)</b>                                  |  |  |  |  |  |

\*If the MSCE degree was completed at USF, core or elective class requirements might already be met (e.g., CGN 6311C: Intro to Data Science for CE). In these cases, credits can be substituted with elective courses to meet the credit requirement of the PhD program.

Notes for the GPD:

\_\_\_\_\_  
Major Professor signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Graduate Program Director sign.

\_\_\_\_\_  
Date