

UNU-CCNY PhD Program in Civil Engineering

Program Requirements

Basic Course Work Requirement	Obtain, by completion of 30 credits of graduate work, the consent of a faculty member to act as his/her research mentor. (Students who have completed a proper master degree in relevant engineering or science will be waived from this requirement)
Advanced Coursework Requirement	Satisfactorily complete 60 credits of approved graduate work (30 credits beyond the master's degree as above), of which at least 30 must be taken at the City University; up to 12 of these credits may be in research, and 18 credits will be relevant graduate courses. PhD students must complete three additional courses (9 credits) listed below that are designed to provide a strong interdisciplinary foundation. These courses could be within the 18 required credits or beyond: • <u>One of the following policy-related courses</u>: PSM B1600 Strategic Management of Public Organizations; PSM B1700 Public Policy; IAS 61230 International Institutions; SUS 7600C Environmental Policymaking; IR B6300 International Law; IR B6928 Human Rights: World Policy; IR B6700 Communicating about the World; IR B6922 Critical Global Issues; IR B6200 International Organization; IR B6933 Foreign Policy & Decision Making; IR B6925 Peacemaking and Negotiation. • <u>One remote sensing related course</u>: ENGR G7000- Remote Sensing for Sustainable Development Goals, or similar course • <u>One geospatial data-related course</u>: ENGR G6700- GIS/Data Science for Sustainable Development, or similar course
Qualifying Examination (First Exam)	Pass a qualifying examination in Civil Engineering, consisting of tests in three general subjects from the first year first-year graduate civil engineering curriculum, with a grade of excellent or high pass (First Examination).
Proficiency in Research Tools	Students should demonstrate research proficiency in one of the following areas: Computer Programming, Data Science, Artificial Intelligence and Machine Learning (AI/ML), Remote Sensing, GIS, Public Communication, Environmental Law/Policy, or relevant fields.
Proposal Examination (Second Exam)	Present orally and in writing and defend a plan of proposed research (Second Examination). Doctoral research must align with one or more UN SDGs and address global challenges such as: • Climate adaptation and mitigation • Water resource management and hydrology • Disaster resilience and risk reduction • Sustainable urban development • Environmental policy and infrastructure sustainability • Sustainable Urban Transport
Time limitation /requirement	Satisfactorily complete not later than 8 years after matriculation a dissertation which embodies original research and is a publishable contribution to engineering and/or science; for a student who is matriculated after the completion of at least 30 credits of acceptable work, this time will be reduced to 7 years.
Internship	All students must complete an internship (in-person or remote) at an UN-related agency/facility, or other UNU-Hubs, allowing them to gain practical experience in applying their research to real-world global challenges for 10-12 weeks during the PhD Program.
PhD Defense (Final Exam)	Present and orally defend the dissertation (Third Examination).
Dissertation Committee	At least one member of the Doctoral Dissertation Committee must be from UNU, UNU Hubs, or one of the UN agencies. This committee will comprise of international experts and ensures that the research aligns with broader global sustainability initiatives, thereby enhancing both the relevance and impact of the dissertation.