Civil Engineering

Graduate programs are offered in coastal and water resources engineering, computing and systems, construction engineering and management, environmental engineering, geotechnical and geo-environmental engineering, mechanics and materials, structural engineering and mechanics, transportation engineering and materials.

Degrees earned will be distributed as: "Master of Civil Engineering", "Master of Science," and "Doctor of Civil Engineering" without specialization specifications.

Admission Requirements

Normal minimum GPA requirements include 3.0 overall and in the major. Students who do not meet these academic requirements may take graduate courses through the Non Degree Studies program to demonstrate academic ability, but consultation with the Director of Graduate Programs is strongly advised. Applicants without academic experience in civil engineering, construction engineering, or environmental engineering may be required to take undergraduate courses to remove deficiencies, but graduate credit is not given for these courses. The Graduate Record Examination is required for all international applicants and all applicants to the PhD, MSCE, or MSENE degree programs.

Master’s Degree Requirements

Four Master's degrees, requiring a minimum of 30 or 31 credit hours, are available. At least two-thirds of a Master’s program should be in a well-defined major area of concentration. The MCE is a non-thesis (Option B) degree with other requirements, such as independent projects or core courses, specified in some areas of specialization. A formal minor is not permitted. The MCE is available both on-campus and through distance education. The MSCE degree requires a thesis and a formal minor is optional. Requirements for the MENE and MSENE are the similar to those for the CE degrees.

Doctoral Degree Requirements

The Ph.D. typically requires one year of full-time course work beyond the master's degree and research culminating in a dissertation. The program must develop a well-defined major area of concentration and may include supporting courses outside the major or a formal minor in a related field. All specialty areas, including Environmental Engineering, are included in the one Ph.D. program.

Student Financial Support

Departmental teaching and research assistantships are available including coverage of tuition and health insurance. Fellowships -- full or supplemental to an assistantship -- are available for exceptional applicants. All financial aid recipients are selected on merit-based competition with other applicants. Applications requesting financial aid (both U.S. and international) should be submitted early: December 15 for Fall admission and by July 15 for Spring admission.

Degrees

- Civil Engineering (MR) (http://catalog.ncsu.edu/graduate/engineering/civil-engineering/civil-engineering-mr/)
- Civil Engineering (MS) (http://catalog.ncsu.edu/graduate/engineering/civil-engineering/civil-engineering-ms/)
- Civil Engineering (PhD) (http://catalog.ncsu.edu/graduate/engineering/civil-engineering/civil-engineering-phd/)
- Civil Engineering (Minor) (http://catalog.ncsu.edu/graduate/engineering/civil-engineering/civil-engineering-minor/)
- Performance Based Earthquake Engineering (Certificate) (http://catalog.ncsu.edu/graduate/engineering/civil-engineering/performance-based-earthquake-engineering-cert/)

Faculty

Full Professors

Sankarasubramanian Arumugam
Morton A. Barlaz
Joseph F. DeCarolis
Area of Research: Environmental and Energy Policy
John W. Baugh Jr.
Emily Zechman Berglund
Francis Lajara De Los Reyes III
Joel Ducoste
Henry C. Frey
Mohammed Awad Gabr
Jessica Ann Kaminsky
Murthy N. Guddati
Abhinav Gupta
Tasnim Hassan
Edward J. Jaseleksis
Youngsoo R. Kim
Detlef R. Knappe
Mervyn J. Kowalsky
George F. List
Min Liu
Gnanamanikam Mahinthakumar
James M. Nau
Margery F. Overton
Ranji Ranjithan
William John Rasdorf
Rudolf Seracino
Akhtarhusein A. Tayebali
Billy Merle Williams Jr.
**Associate Professors**

Ange Therese Akono
Alex Albert  
**Area of Research:** Construction Engineering and Management

Douglas F. Call  
**Area of Research:** Environmental & Water Resources

Cassandra Alison Castorena
Danjue Chen
Joel Casey Dietrich
Andrew P. Grieshop
Jeremiah Johnson
Brina Mortensen Montoya
Daniel R. Obenour  
**Area of Research:** Water Resources & Coastal Engineering

Mohammad Pour-Ghaz
Benjamin Shane Underwood

**Assistant Professors**

Katherine Anarde  
**Area of Research:** Environmental, Water Resources, & Coastal Engineering

Tarek Aziz
Eleni Bardaka
Jorge Emilio San Juan Blanco
Ashly Margot Cabas Mijares
Fernando Garcia Menendez
Ali Hajibabaie
Kook Han
Angela Rose Harris
Jordan Kern
Jason Fredrick Patrick
Giorgio Talotti Proestos
Jacelyn Jaunice Rice-Boayue
Andrew Joseph Ziccarelli

**Emeritus Faculty**

William L. Bingham
Robert C. Borden
Roy H. Borden
Earl Downey Brill Jr
Allen C. Chao
John S. Fisher
Ajaya K. Gupta
Kerry S. Havner
Clinton L. Heimbach
Yasuyuki Horie
David West Johnston
Narendra P. Khosla
Michael Lloyd Leming
Vernon C. Matzen
Stephens W. Nunnally
M. Shamimur Rahman
Sami Rizkalla

Nagui M. Rouphail, *Distinguished Professor Emeritus*  
**Area of Research:** Transportation Engineering & Systems

J. C. Smith
John R. Stone
Harvey E. Wahls
Paul Z. Zia

**Practice/Research/Teaching Professors**

Saran Srikanth Bodda

**Adjunct Faculty**

Amin Kamal Akhnoukh

Michael Scott Breen, *Adjunct Professor*
Area of Research: Environmental Engineering & Air Quality
Daniel J. Findley, Adjunct Assistant Professor
Area of Research: Transportation Research (ITRE)
Alejandra C. Geiger-Ortiz, Adjunct Assistant Professor
Area of Research: Coastal Engineering
Leta Huntsinger

Anderson Rodrigo de Queiroz, Adjunct Research Assistant Professor

Assistant Research Professor
Tongchuan Wei