

# Civil Engineering

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Graduate programs are offered in coastal and water resources engineering, computing and systems, construction engineering and management, environmental engineering, geotechnical and geoenvironmental 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.**

## 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 MENE 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.

## More Information

Civil Engineering Program Website (<https://www.ccee.ncsu.edu/academics/graduate-programs/>)

Distance Website (<http://engineeringonline.ncsu.edu/>)

## 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 MENE degree programs.

## Applicant Information

### Civil Engineering (MS and PhD)

- **Delivery Method:** On-Campus
- **Entrance Exam:**
- **Interview Required:** None

### Civil Engineering (MR)

- **Delivery Method:** On Campus, Online, Hybrid
- **Entrance Exam:**
- **Interview Required:** None

## Application Deadlines

- **Fall:** June 1 (US), March 1 (Int)
- **Spring:** November 1 (US), July 15 (Int)
- **Summer 1:** March 15 (US), December 15 (Int)
- **Summer 2:** May 1 (US), December 15 (Int)

## 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. Jaselskis  
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.

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## 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

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## 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 Hajbabaie  
Kook Han  
Angela Rose Harris  
Jordan Kern  
Jason Fredrick Patrick  
Giorgio Talotti Proestos  
Jacelyn Jaunice Rice-Boayue  
Andrew Joseph Ziccarelli

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## Practice/Research/Teaching Professors

Saran Srikanth Bodda  
Florentino Banaag De La Cruz  
Billy L. Edge  
Meagan Kittle Autry  
James William Levis  
Gregory W. Lucier  
Mohamad Shoaib Samandar  
Elizabeth J. Sciaudone

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## 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*  
Aditya Sinha

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## Assistant Research Professor

Tongchuan Wei

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## 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. Roupail, *Distinguished Professor Emeritus*

**Area of Research:** Transportation Engineering & Systems

J. C. Smith

John R. Stone

Harvey E. Wahls

Paul Z. Zia