Civil engineers plan, design, supervise the construction, operate, maintain, inspect, retrofit, and manage many of the facilities and systems in both public and private sectors that are essential to modern life. The civil engineering profession is one of the most stable and most diverse of the engineering disciplines. Civil engineers are employed by consulting firms, public agencies, and start and operate their own businesses. Workplaces range from construction sites to design offices. Most civil engineers work with some engineering or construction aspect of private and/or public facilities, such as airports, bridges, buildings, coastal structures, dams, environmental remediation of contaminated sites, harbors, highways, offshore structures, pipelines, railroads, transportation systems, tunnels, water collection systems, water distribution systems, water and wastewater treatment facilities, and waterways. Civil engineers are on the forefront of applying the newest technology innovations in engineering and construction.

Civil engineering projects are unique because they require individual planning, analysis, design, construction supervision, performance monitoring, management, and retrofitting. Civil engineering projects often require technical, governmental, legal, financial, and social evaluations. The primary objective is to provide the best service for the users while minimizing costs and other undesirable impacts.

Environmental engineers use a multidisciplinary approach to solve environmental challenges facing public and environmental health, such as water treatment, waste management, and climate change. Environmental engineers work to protect human health and welfare while minimizing the adverse effects of human activity on the environment. Environmental engineers are also employed by consulting firms, public agencies, and start and operate their own businesses.

The mission of the Zachry Department of Civil and Environmental Engineering (http://engineering.tamu.edu/civil/) at Texas A&M University is to prepare our graduates to become professional engineers and leaders in the engineering profession by providing our students with a solid education that will enable them to integrate fundamental scientific engineering principles and that will couple with the latest technological advances to facilitate the development of their problem-solving skills. Additionally, the department provides opportunities for enhancement of the students’ educational experience through meaningful interactions with the profession. In summary, we expect our graduates to be fully prepared for life-long learning experiences that will strengthen their abilities to successfully and effectively solve the complex engineering problems facing society.

The faculty of the Zachry Department of Civil and Environmental Engineering strives to ensure that our ever-evolving educational programs accomplish several objectives. First, our faculty must prepare the students to address the current and future civil and environmental engineering needs of the State of Texas, the nation and the world by being able to recognize the important geopolitical and public policy needs; and solve technical problems. In addition, the Department provides a curriculum that integrates scientific and technical knowledge with an appreciation for social, economic, and political concerns. The curriculum and programs provide opportunities for our students to:

1. build leadership skills,
2. learn professionalism and ethical responsibility, and
3. develop an understanding of the need to engage in lifelong learning.

Finally, the faculty of the Zachry Department of Civil and Environmental Engineering at Texas A&M University promotes the highest academic standards of excellence, quality, and ethics in both our undergraduate and graduate programs, and in doing so create both a culture of excellence and a community of scholars. Through our programs, our faculty and graduates provide local, state, national, and international leadership to a profession that must solve the civil and environmental engineering problems facing an increasingly complex society.

BS in Civil Engineering

The program educational objectives for the undergraduate civil engineering program within the Zachry Department of Civil and Environmental Engineering at Texas A&M University are as follows.

Within a few years after graduation, Texas A&M University Civil Engineering graduates will:

- Actively engage in civil engineering practice or pursue graduate programs in civil engineering or related fields.
- Achieve a level of technical competency allowing them to become licensed professional engineers.
- Complement their education through advanced studies, professional development and continuing education courses.

The undergraduate program in civil engineering within the Zachry Department of Civil and Environmental Engineering at Texas A&M is accredited by the Engineering Accreditation Commission of ABET (www.abet.org). Students pursuing a BS in Civil Engineering can follow a general track or specialize in one of seven areas. Eight tracks are available for undergraduate study within Civil Engineering as follows:

1. General Civil Engineering
2. Coastal and Ocean Engineering
3. Construction Engineering and Management
4. Environmental Engineering
5. Geotechnical Engineering
6. Structural Engineering
7. Transportation and Infrastructure Materials Engineering
8. Water Resources Engineering

Before commencing course work in the major, students must be admitted to the major or have the approval of the department.

Graduate programs in civil engineering are also available. These programs allow further specialization and offer more in-depth study to address more complex technical and management issues. Graduate degrees also offer additional employment opportunities.

BS in Environmental Engineering

The program educational objectives for the undergraduate environmental engineering program within the Zachry Department of Civil and Environmental Engineering at Texas A&M University are as follows.

Within a few years after graduation, Texas A&M University Environmental Engineering graduates will:

1. act as leaders in environmental engineering and management,
2. apply environmental engineering principles to solve professional problems,
3. develop an understanding of the need to engage in lifelong learning,
4. Complement their education through advanced studies, professional development and continuing education courses.

The undergraduate program in environmental engineering within the Zachry Department of Civil and Environmental Engineering at Texas A&M University is accredited by the Engineering Accreditation Commission of ABET (www.abet.org).

Students pursuing a BS in Environmental Engineering can choose to pursue a general track or specialize in one of seven areas. Eight tracks are available for undergraduate study within Environmental Engineering as follows:

1. Water Resources Engineering
2. Environmental Engineering
3. Environmental Science
4. Environmental Management
5. Environmental Law
6. Environmental Policy
7. Environmental Economics
8. Environmental Systems Engineering
• Actively engage in environmental engineering practice or pursue graduate programs in environmental engineering or related fields.
• Achieve a level of technical competency allowing them to become licensed professional engineers.
• Complement their education through advanced studies, professional development and continuing education courses.

Our environmental engineering curriculum is unique in that it:
1. Has a specific focus on the protection of public and environmental health by solving environmental challenges;
2. Showcases a broad range of coursework to pursue specific environmental interests in natural or engineered systems;
3. Is multidisciplinary in every approach, melding earth science, life science, chemistry, social science and engineering;
4. Provides the tools to develop solutions to solve emerging and existing issues such as water treatment, climate change, and other environmental challenges.

Before commencing course work in the major, students must be admitted to the major or have the approval of the department.

Graduate programs in civil engineering with a focus on environmental engineering are also available. These programs allow further specialization and offer more in-depth study to address more complex technical and management issues. Graduate degrees also offer additional employment opportunities.

Faculty

Appleton, Robert A, Associate Professor of the Practice
Civil Engineering
BS, Texas A&M University, 1984

Aubeny, Charles P, Professor
Civil Engineering
PHD, Massachusetts Inst of Technology, 1992

Autenrieth, Robin L, Professor
Civil Engineering
PHD, Clarkson University, 1986

Banks, Margaret K, University Distinguished Professor
Civil Engineering
PHD, Duke University, 1989

Barroso, Luciana R, Associate Professor
Civil Engineering
PHD, Stanford University, 1999

Birely, Anna C, Associate Professor
Civil Engineering
PHD, University of Washington, 2012

Birgisson, Bjorn, Professor
Civil Engineering
PHD, University of Minnesota, 1996

Bracci, Joseph M, Professor
Civil Engineering
PHD, University of Buffalo - The State University of New York, 1992

Briaud, Jean-Louis, University Distinguished Professor
Civil Engineering
PHD, University of Ottawa, Canada, 1979

Brumbelow, James K, Associate Professor
Civil Engineering
PHD, Georgia Institute of Technology, 2001

Bullard, Jeffrey, Professor
Civil Engineering
PHD, University of California at Berkeley, 1993

Burris, Mark W, Professor
Civil Engineering
PHD, University of South Florida, 2001

Cahill, Anthony T, Associate Professor
Civil Engineering
PHD, Johns Hopkins University, 1998

Chang, Kuang-An, Professor
Civil Engineering
PHD, Cornell University, 1999

Chellam, Shankararaman, Professor
Civil Engineering
PHD, Rice University, 1995

Chen, Hamn C, Professor
Civil Engineering
PHD, University of Iowa, 1982

Chu, Kung-Hui, Professor
Civil Engineering
PHD, University of California at Berkeley, 1998

Damnjanovic, Ivan, Professor
Civil Engineering
PHD, The University of Texas at Austin, 2006

England, Peter S, Instructional Associate Professor
Civil Engineering
PHD, Texas Tech University, 2011

Ford, David N, Professor
Civil Engineering
PHD, Massachusetts Inst of Technology, 1995

Gao, Huilin, Associate Professor
Civil Engineering
PHD, Princeton University, 2005

Gharaibeh, Nasir G, Professor
Civil Engineering
PHD, University of Illinois, 1997

Grasley, Zachary C, Professor
Civil Engineering
PHD, University of Illinois Urbana Champaign, 2006

Hawkins Jr, Harvey E, Professor
Civil Engineering
PHD, Texas A&M University, 1993
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<tr>
<th>Name</th>
<th>Title</th>
<th>Department</th>
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<td>Hueste, Marybeth D</td>
<td>Professor</td>
<td>Civil Engineering</td>
<td>University of Michigan, 1997</td>
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<td>Hurlebaus, Stefan</td>
<td>Professor</td>
<td>Civil Engineering</td>
<td>University of Stuttgart, Germany, 2002</td>
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<td>Hutchinson, Richard N</td>
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<td>Civil Engineering</td>
<td>Texas A&amp;M University, 2015</td>
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<td>Professor</td>
<td>Civil Engineering</td>
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<td>Keating, Peter B</td>
<td>Associate Professor</td>
<td>Civil Engineering</td>
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<td>Kim, Yong-Rak</td>
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<td>Civil Engineering</td>
<td>Texas A&amp;M University, 2003</td>
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<td>Koliou, Maria</td>
<td>Assistant Professor</td>
<td>Civil Engineering</td>
<td>University of Buffalo - The State University of New York, 2014</td>
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<td>Little, Dallas N</td>
<td>University Distinguished Professor and Regents Professor</td>
<td>Civil Engineering</td>
<td>Texas A&amp;M University, 1979</td>
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<td>London, Mara R</td>
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<td>Lord, Dominique</td>
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<td>Civil Engineering</td>
<td>University of Toronto, 2000</td>
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<td>Lowery Jr, Lee L</td>
<td>Senior Professor</td>
<td>Civil Engineering</td>
<td>Texas A&amp;M University, 1967</td>
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<td>Lyle, Stacey</td>
<td>Associate Professor Of The Practice</td>
<td>Civil Engineering</td>
<td>University of Georgia, 2003</td>
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<td>Lytton, Robert L</td>
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<td>Ma, Xingmao</td>
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<td>Civil Engineering</td>
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<td>Associate Professor</td>
<td>Civil Engineering</td>
<td>John Hopkins University, 2007</td>
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<td>Mercier, Richard S</td>
<td>Professor</td>
<td>Civil Engineering</td>
<td>Massachusetts Inst of Technology, 1985</td>
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<td>Miller, Gretchen R</td>
<td>Associate Professor</td>
<td>Civil Engineering</td>
<td>University of California at Berkeley, 2009</td>
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<td>Mostafavidarani, Ali</td>
<td>Associate Professor</td>
<td>Civil Engineering</td>
<td>Purdue University, 2013</td>
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<td>Niedzwecki, John M</td>
<td>Professor</td>
<td>Civil Engineering</td>
<td>The Catholic University of America, 1977</td>
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<td>Noshadran, Arash</td>
<td>Assistant Professor</td>
<td>Civil Engineering</td>
<td>University of Southern California, 2011</td>
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<td>Olivera, Francisco</td>
<td>Associate Professor</td>
<td>Civil Engineering</td>
<td>The University of Texas at Austin, 1996</td>
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<td>Paal, Stephanie G</td>
<td>Assistant Professor</td>
<td>Civil Engineering</td>
<td>Georgia Institute of Technology, 2013</td>
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<td>Pittman, Leslie W</td>
<td>Associate Professor of the Practice</td>
<td>Civil Engineering</td>
<td>Colorado State University, 1978</td>
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<td>Puppala, Anand</td>
<td>Professor</td>
<td>Civil Engineering</td>
<td>Louisiana State University, 1993</td>
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<td>Quadrifoglio, Luca</td>
<td>Associate Professor</td>
<td>Civil Engineering</td>
<td>University of Southern California, 2005</td>
<td></td>
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<tr>
<td>Rogers Jr, Alton G</td>
<td>Associate Professor of the Practice</td>
<td>Civil Engineering</td>
<td>BS, Texas A&amp;M University, 1976</td>
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<td>Sakhaei Far, Maryam S</td>
<td>Assistant Professor</td>
<td>Civil Engineering</td>
<td>North Carolina State University, 2011</td>
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<td>Sanchez Castilla, Marcelo Javier</td>
<td>Professor</td>
<td>Civil Engineering</td>
<td>Universidad Politecnica de Catalunya (UPC), Barcelona, Spain, 2004</td>
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<td>Scarfuto, Jessica C</td>
<td>Lecturer</td>
<td>Civil Engineering</td>
<td>MS, Texas A&amp;M University, 2014</td>
<td></td>
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</table>
Sideris, Petros, Assistant Professor
Civil Engineering
PHD, University of Buffalo - The State University of New York, 2012

Sims, Kassandra, Assistant Lecturer
Civil Engineering
MS, University of North Texas, 2012

Skillen, Kinsey, Assistant Professor
Civil Engineering
PHD, Purdue University, 2020

Socolofsky, Scott A, Professor
Civil Engineering
PHD, Massachusetts Inst of Technology, 2001

Torres, Jacob, Senior Lecturer
Civil Engineering
PHD, Rice University, 2016

Walewski, John A, Associate Professor of the Practice
Civil Engineering
PHD, The University of Texas at Austin, 2005

Wang, Xiubin B, Professor
Civil Engineering
PHD, University of California at Irvine, 2001

Wolf, Charles M, Professor of the Practice
Civil Engineering
PHD, Texas A&M University, 2001

Wurbs, Ralph A, Senior Professor
Civil Engineering
PHD, Colorado State University, 1978

Yarnold, Matthew T, Assistant Professor
Civil Engineering
PHD, Drexel University, 2013

Ying, Qi, Associate Professor
Civil Engineering
PHD, University of California at Davis, 2004

Zhang, Yunlong, Professor
Civil Engineering
PHD, Virginia Tech, 1996

Zollinger, Dan, Professor
Civil Engineering
PHD, University of Illinois at Urbana-Champaign, 1989

Majors

- Bachelor of Science in Civil Engineering, Coastal and Ocean Engineering Track (http://catalog.tamu.edu/undergraduate/engineering/civil-environmental/bs-coastal-ocean-engineering-track/)
- Bachelor of Science in Civil Engineering, Geotechnical Engineering Track (http://catalog.tamu.edu/undergraduate/engineering/civil-environmental/bs-geotechnical-engineering-track/)
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- Bachelor of Science in Civil Engineering, Transportation and Infrastructure Materials Engineering Track (http://catalog.tamu.edu/undergraduate/engineering/civil-environmental/bs-transportation-infrastructure-materials-engineering-track/)
- Bachelor of Science in Civil Engineering, Water Resources Engineering Track (http://catalog.tamu.edu/undergraduate/engineering/civil-environmental/bs-water-resources-engineering-track/)
- Bachelor of Science in Environmental Engineering (http://catalog.tamu.edu/undergraduate/engineering/civil-environmental/environmental-engineering-bs/)