

Civil or Construction Engineering Technology

THE AVERAGE STARTING SALARY FOR A GRADUATE WITH:
BACHELOR'S DEGREE IN CIVIL ENGINEERING TECHNOLOGY IS \$35,550
ASSOCIATE'S DEGREE IN CIVIL ENGINEERING TECHNOLOGY IS \$28,000



Civil engineering technologists and technicians generate the drawings and specifications to create buildings, parks, structures, bridges, roads, water systems, tunnels, seawalls, embankments, etc. Technologists can design the structures and also work on designs developed by an engineer. Technologists can work independently but technicians normally work directly under the supervision of an engineer or technologist. All are involved in the various stages of design, documentation and construction. They work for consulting firms, wastewater treatment plants, federal, state, or local government agencies (such as a department of transportation), material testing laboratories, construction contracting firms, architectural firms, utility companies, manufacturing companies, and similar companies. Technicians work for the same types of companies and may perform drafting and/or surveying support or be involved in the installation and maintenance of the same structures, machines, and water systems. It is an exciting field rich in opportunities not only locally and nationally but also globally.

Technologists and technicians may find themselves in all stages of planning, designing, drafting, surveying, and analyzing such things as where water flows after a rain (drainage), watersheds, pipelines, waterways, roads, bridges, dams, water treatment facilities and/or any other infrastructure. This means a lot of the work is done outdoors, in many different settings. They also inspect buildings and structures, install or operate water pumps, run tests on soil and river water in laboratories, write reports, communicate with other members on the team, and give presentations about their findings. A technologist who works as a construction inspector could make sure that contractors follow specifications, proposals, and state guidelines. A technologist working for the Department of Transportation could make adjustments to the plans, specifications and estimates on bridge, culvert, and road projects. A technician who works for a civil engineering firm could be on the team helps oversee the rehabilitation of a road, installation of new drainage, curbs, sidewalks, lighting, and more. Many states

Job Outlook

Employment of civil engineering technicians with an associate's degree is expected to grow 12 percent from 2010 to 2020, about as fast as the average for all occupations. The need to maintain and repair an aging infrastructure will sustain demand for civil engineering technicians.

Industries with the highest levels of employment in this occupation:

1. Architectural, Engineering, and Related Services
2. State Government (OES Designation)
3. Local Government (OES Designation)
4. Colleges, Universities, and Professional Schools
5. Highway, Street, and Bridge Construction

Top paying industries for this occupation:

1. Waste Treatment and Disposal
2. Natural Gas Distribution
3. Metal Ore Mining
4. Building Equipment Contractors
5. Water, Sewage and Other Systems

Source: US Bureau of Labor Statistics

require PE registration for many of these activities such as planning, designing, surveying, changes in plans, etc. Civil engineering technologists are excellent candidates to become licensed surveyors – testing similar to PE.

There are three choices for majoring in civil engineering technology and civil engineering. The table below gives a basic understanding of the differences but both sections on civil engineering and civil engineering technology should be read to gain a more thorough understanding of the fields and the differences between them.

Degree Program	Degree Type	Primary Focus	Types of employers
Civil Engineering Technology	Associate's Degree (technician)	Drafting, surveying, inspecting, operating and installing equipment. Will work on a team under the supervision of a technologist or engineer. Cannot be licensed as a PE.	Consulting firms, wastewater treatment plants, federal, state, or local government agencies, material testing laboratories, construction contracting firms, architectural firms, utility companies, manufacturing companies, and similar companies
Civil Engineering Technology	Bachelor's Degree (engineering technologist)	Construction inspecting, soil testing, design, planning, documentation, analysis and testing.	
Civil Engineering	Bachelor's Degree (engineer)	Investigate complex environmental, geological, structural and transportation problems and develop engineering methods to solve them.	

Degree comparison table of civil engineering and civil or construction engineering technology.

Glossary of Terms

Analyze - to study (something) closely and carefully: to learn the nature and relationship of the parts of (something) by a close and careful examination (merriam-webster.com)

Culvert - a drain or pipe that allows water to flow under a road or railroad (merriam-webster.com)

Infrastructure - the basic equipment and structures (such as roads and bridges) that are needed for a country, region, or organization to function properly (merriam-webster.com)

Inspector - a person employed to inspect something (merriam-webster.com)

Rehabilitation - to restore or bring to a condition of health or useful and constructive activity (merriam-webster.com)

Specification - an instruction that says exactly how to do or make something (merriam-webster.com)

Survey - to measure and examine (an area of land) (merriam-webster.com)

Wastewater - water that has been used (as in a manufacturing process) (merriam-webster.com)

ABET Accredited Programs in Civil or Construction Engineering Technology

School Name	Location	Website	Program and Degree Name
Bluefield State College	Bluefield, WV, US	www.bluefieldstate.edu	Civil Engineering Technology, AS
Bluefield State College	Bluefield, WV, US	www.bluefieldstate.edu	Civil Engineering Technology, BS
Bridgemont Community and Technical College	Montgomery, WV, US	www.bridgemont.edu	Civil Engineering Technology, AS
Broome Community College	Binghamton, NY, US	www.sunybroome.edu	Civil Engineering Technology, AAS
Central Connecticut State University	New Britain, CT, US	www.ccsu.edu	Civil Engineering Technology, BS
Central Piedmont Community College	Charlotte, NC, US	www.cpcc.edu	Civil Engineering Technology, AAS
Chattanooga State Community College	Chattanooga, TN, US	http://www.chattanoogastate.edu/	Civil Engineering Technology Option in Engineering Technology, AAS
Cincinnati State Technical and Community College	Cincinnati, OH, US	www.cincinnati-state.edu	Civil Engineering Technology, AAS
Colorado State University - Pueblo	Pueblo, CO, US	www.colostate-pueblo.edu	Civil Engineering Technology, BSCET
Delaware Technical & Community College, Jack F. Owens Campus	Georgetown, DE, US	www.dtcc.edu/owens	Civil Engineering Technology, AAS
Erie Community College, North Campus	Williamsville, NY, US	www.ecc.edu	Civil Engineering Technology, AAS
Essex County College	Newark, NJ, US	www.essex.edu	Civil Construction Engineering Technology, AAS
Fairleigh Dickinson University (Metropolitan Campus)	Teaneck, NJ, US	www.fdu.edu	Civil Engineering Technology, BS CivET
Fairmont State University	Fairmont, WV, US	www.fairmontstate.edu	Civil Engineering Technology, AS
Fairmont State University	Fairmont, WV, US	www.fairmontstate.edu	Civil Engineering Technology, BSET
Florida A&M University	Tallahassee, FL, US	www.famu.edu	Civil Engineering Technology, BS
Gaston College	Dallas, NC, US	www.gaston.cc.nc.us	Civil Engineering Technology, AAS
Georgia Southern University	Statesboro, GA, US	www.georgiasouthern.edu	Civil Engineering Technology, BSCET
Horry-Georgetown Technical College	Conway, SC, US	www.hgtc.edu	Civil Engineering Technology, AAS
Hudson Valley Community College	Troy, NY, US	www.hvcc.edu	Civil Engineering Technology, AAS
Idaho State University	Pocatello, ID, US	www.isu.edu	Civil Engineering Technology, AAS
Indiana University-Purdue University Fort Wayne	Fort Wayne, IN, US	www.ipfw.edu	Civil Engineering Technology, AS
Lakeland Community College	Kirtland, OH, US	www.lakelandcc.edu	Civil Engineering Technology, AAS
Metropolitan State University of Denver	Denver, CO, US	http://www.mscd.edu/	Civil Engineering Technology, BS
Middlesex County College	Edison, NJ, US	www.middlesexcc.edu	Civil Engineering Technology, AAS
Midlands Technical College	Columbia, SC, US	www.midlandstech.com	Civil Engineering Technology, AS
Mohawk Valley Community College	Utica, NY, US	www.mvcc.edu	Civil Engineering Technology, AAS
Montana State University - Northern	Havre, MT, US	www.msun.edu	Civil Engineering Technology, BS
Murray State University	Murray, KY, US	www.murraystate.edu	Civil Engineering Technology, BS
Nassau Community College	Garden City, NY, US	www.sunynassau.edu	Civil Engineering Technology, AAS
New Mexico State University	Las Cruces, NM, US	www.nmsu.edu	Civil Engineering Technology, BSET
New York City College of Technology	Brooklyn, NY, US	www.citytech.cuny.edu	Civil Engineering Technology, AAS
Northeast Wisconsin Technical College	Green Bay, WI, US	www.nwtc.edu	Civil Engineering Technology, AAS
Old Dominion University	Norfolk, VA, US	www.odu.edu	Civil Engineering Technology, BSET

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School Name	Location	Website	Program and Degree Name
Pennsylvania College of Technology	Williamsport, PA, US	www.pct.edu	Civil Engineering Technology, AS
Pennsylvania College of Technology	Williamsport, PA, US	www.pct.edu	Civil Engineering Technology, BS
Point Park University	Pittsburgh, PA, US	www.pointpark.edu	Civil Engineering Technology, BS
Rochester Institute of Technology	Rochester, NY, US	www.rit.edu	Civil Engineering Technology, BS
Savannah State University	Savannah, GA, US	www.savannahstate.edu	Civil Engineering Technology, BS
Sinclair Community College	Dayton, OH, US	www.sinclair.edu	Civil Engineering Technology, AAS
South Carolina State University	Orangeburg, SC, US	www.scsu.edu	Civil Engineering Technology, BS
Southern Polytechnic State University	Marietta, GA, US	www.spsu.edu	Civil Engineering Technology, BS
Springfield Technical Community College	Springfield, MA, US		Civil Engineering Technology, A.S.
Springfield Technical Community College	Springfield, MA, US		Civil Engineering Technology- Construction Management Option, A.S.
Stark State College of Technology	Canton, OH, US	www.starkstate.edu	Civil Engineering Technology, AAS
State University of New York at Canton	Canton, NY, US	www.canton.edu	Civil Engineering Technology, AAS
State University of New York Institute of Technology at Utica/Rome	Utica, NY, US	www.sunyit.edu	Civil Engineering Technology, BS
Three Rivers Community College	Norwich, CT, US	www.trcc.commnet.edu	Civil Engineering Technology, AS
University of North Carolina at Charlotte	Charlotte, NC, US	www.uncc.edu	Civil Engineering Technology, BS
University of Pittsburgh at Johnstown	Johnstown, PA, US	www.pitt.edu/~upjweb	Civil Engineering Technology, BS
University of Puerto Rico at Bayamon	Bayamon, PR, US	http://www.uprb.edu	Civil Engineering Technology- Construction, A.S.
University of Puerto Rico at Bayamon	Bayamon, PR, US	http://www.uprb.edu	Civil Engineering Technology- Construction, A.S.
University of Puerto Rico at Ponce	Ponce, PR, US	www.uprp.edu	Civil Engineering Technology in Architectural Drafting, AEngT
University of Puerto Rico at Ponce	Ponce, PR, US	www.uprp.edu	Civil Engineering Technology in Construction, AEngT
Vermont Technical College	Randolph Center, VT, US	www.vtc.vsc.edu	Civil and Environmental Engineering Technology, AE
Wentworth Institute of Technology	Boston, MA, US	www.wit.edu	Civil Engineering Technology, BS
Youngstown State University	Youngstown, OH, US	www.yzu.edu	Civil and Construction Engineering Technology, AAS
Youngstown State University	Youngstown, OH, US	www.yzu.edu	Civil and Construction Engineering Technology, BSAS