This pamphlet showcases student internships in various fields of civil and environmental engineering. It is my hope that these internship profiles allow students to get a glimpse of the job opportunities that are available in the industry.

I would like to thank all of the members of the American Society of Civil Engineers WPI Student Chapter who took the time to submit their internship profiles. I would also like to thank the CEE department for their support.

Sincerely,

Tracy Golinveaux
ASCE WPI Student Chapter
President
“I am working on several bridge reconstruction projects as an assistant project manager. As general contractors we dismantle bridges and completely rebuild them to meet today’s standards. We also widen the roadways to help eliminate congestion and the rising amount of traffic accidents that result from narrow roadways. Honestly, the best part about this job is the fact that I am prepared for everything they throw at me. From cost estimating to structural drawings, I am confident that I can handle the work load and I can perform to the highest of standards. After I graduate I plan to either follow this field as a Project Manager or continue my education and work towards a patent law degree.”
“This summer I am working for National Grid. It is a utilities company ‘focused on delivering energy safely, efficiently, reliably and responsibly.’ I hadn’t really thought about working for an electrical company because I figured the employees would need to have an electrical engineering background. However, there are many opportunities for Civil Engineers. I am working in the Transmission Line Engineering Department. The department is responsible for inspection of the transmission line structures and all of the engineering involved with the installation of the structures. I really enjoy the balance of going out into the field and working in the office.

I believe that I was prepared for this internship because of the strong work ethic that WPI promotes and also the various classes I have taken there. Since the transmission line structures are generally constructed of steel or wood, courses such as Structural Engineering (Wood Design) and Steel Design provided me with great insight into the behavior and structural properties of the poles and towers.”
“I mainly work as a land surveyor but I also work on commercial projects. A couple of the critical jobs I worked on were monitoring a retaining wall during the construction of a project in Newton and obtaining pipe support and tank elevations at a liquid natural gas plant in Everett. I have also worked on projects for a proposed drainage system in Winchester by testing the soil drainage rate. My favorite part of the job is working outside and being at a new site everyday. WPI has prepared me for the applications of the materials covered in class, for example, the practicality of the surveying labs rather than just being theoretical. After I graduate, I’m hoping to get a job in the field of Urban and Environmental Planning.”
“I am a summer intern at the National Fire Protection Association (NFPA). They are the leading advocates of fire prevention who publish over 300 codes and standards which are used in every aspect of the building process. I work in the Building & Life Safety Department and the Codes and Standards Department. My primary duties involve assisting the departments with research and organization. My favorite part of the job is attending some of the many seminars NFPA offers. During the seminars I have learned everything from how to inspect building plans to how to properly place transformers in electrical rooms.

WPI has taught me many valuable skills that I use during my internship. I have learned how to stay organized (7 week classes are pretty fast paced), interact with professionals (through many WPI organizations), and how to research (through the IQP).

I plan on graduating this year and continuing at WPI in the 5-year BS/MS Fire Protection Engineering program. I have truly enjoyed my internship and hope to work for NFPA in the future.”
“I work in the Industrial Safety Department for Pilgrim Nuclear Power Station. Any type of work being done on site goes through the IS office to assess the safety requirements for the task. We then go around to each job and make sure all is going according to plan. Some things we check include: wearing the proper protective gear, using the correct equipment, and making smart and well thought out decisions while performing the task. We also have to communicate with the rest of the Entergy employees on safe practices, updated news, and anything else that we need to. I analyze data to find trends within them too. ‘Entergy is a great company, I’m learning a lot, and enjoying my summer here!’”
“I am an Environmental Engineering Intern. I monitor well development using pumps and bailers, groundwater and soil sampling, calibrate YSI meters (water quality meters) and utilize them to take readings from wells. I also check for volatile organic compounds in soil with VOC meter. I have received training in surveying, I input data in tables for reports and assisted in other tasks for reports. My favorite part of the job is working outdoors, particularly setting up pump and YSI meters to purge water and taking water quality readings and calibrating the YSI’s. The Career Development Center prepared me for this internship.”
“I am an intern for WSE. I am an assistant for one of the project managers/engineers. My job basically consists of being at the project sites that the engineer is not on and being his eyes. I help out with anything that needs to be done, such as calculations, ordering materials, talking to and answering questions from the clients that happen to come by to see the project, and some manual labor. My favorite part of the job is being part of the process to solving problems that arise. WPI has helped by teaching me how to work in groups and how to communicate. My future plans are to continue to learn the whole engineering process from the designing of the plans to the actual labor that is involved in putting the plans into reality and to be able to design buildings and structures for myself someday.”
“I am currently a second year summer intern for this small but rapidly growing company. I work on various environmental projects, proposals, and some field work. My major project one summer was an infiltration/inflow study which was a great balance between being in the field and doing some in office work. I assist with CADD and project schedules and aid project managers in their various endeavors. This job has inspired me to take some environmental classes even though my concentration is structural and many of the things I have learned at WPI are applied daily. I got this job with only 2 civil classes as background and recommend CADD and surveying because they are very high demand for interns. I plan to graduate this year and look for a full time position and look into going into an architecture graduate program.”
“This summer I completed a 12-week internship with Tata and Howard, Inc., Consulting Engineers in Marlborough, MA. The firm specialized in Water and Wastewater Treatment and Hydraulic Modeling. I worked mostly on projects across Central Massachusetts and Metro west, but I worked on projects in New Hampshire and even Arizona. Much of my work was focused on getting wastewater treatment facility and sewer collection system designs ready to go out to bid. I made edits to drawings in AutoCAD, polished up design reports, and met with mechanical and electrical engineers to approve plumbing, heating, and electrical portions of the projects.

My classes at WPI prepared me for much of what I saw through my internship. Most of the types of wastewater treatment that I worked on this summer were covered in my Wastewater Treatment class. I understood the structural drawings for buildings at the wastewater plants from my steel and wood design classes. The fast-paced WPI term system mirrored the pace on the job. I also feel that I got the internship because I am a WPI student. About 40% of the engineers in the company are WPI graduates, and they were definitely comfortable hiring other WPI students.

Looking ahead to the future, the sky is the limit. I am going to apply to a bunch of grad schools and jobs in a variety of fields, from environmental engineering to structural engineering to alternative energy. I’ll see what offers I get and go from there!”
“W&C is an integrated engineering, science, and operations company who serve public and private clients locally and nationwide. During my two summers at W&C, I was able to work on wastewater treatment facility upgrade projects as well as assessing the capacity of storm water systems. I have been able to travel to multiple offices, attend important meetings with clients, and visit sites. Last summer I analyzed the hydraulics of the return activated sludge pumps for a wastewater treatment facility in Massachusetts, and this year I have been assessing the capacity of SUNY Albany’s storm water system using AutoCAD and a hydrology computer program.

My favorite part about working for Woodard & Curran is the people. Everyone is extremely sincere and friendly, and they are always willing to help. Sometimes I would sit down for up to two hours with an employee who is just trying to teach me and help me learn more. The office environment was very relaxed and friendly. I love it there!

WPI prepared me for this internship, not only through the classes I have taken, but mostly for my work-ethic in general. WPI is fast-paced compared to other colleges, and the students are usually able to quickly adjust to this pace. I have to thank WPI for preparing me for both my internship, as well as my future, because the school has given me constant determination and dedication to succeed in both my classes and extracurricular activities. WPI has taught me to always strive to learn more. This has helped me make the best out of my internship experience.

My future plans are unknown at this time. I would like to work for a civil/environmental engineering firm for a few years, and eventually go back to graduate school. I would like to work in the real world for a few years in order to figure out where my true interests lie. W&C has given me two years of great experience, and they will definitely be one of the companies I consider once I graduate.”
“As an engineering summer intern at Tighe & Bond’s Cape Cod office I am given a variety of projects. The job involves wastewater and water treatment research, creating and putting together proposal reports, and communicating with a variety of clients and sub consultants. A favorite project so far is with a local town’s DPW to create a water conservation video for local schools. It has truly been a lot of fun finding a production company, outlining a basic script for the video, and formulating a proposed budget. To add to that, the best part of working in the Cape office is that the beach is right down the road :) WPI has prepared me most for this job by improving my communication skills and report writing (especially the IQP!). My future plans are to go to graduate school to concentrate in structural engineering and obtain an internship then full-time job within the structural engineering field.”
“My job consists of both office work and field work. In the office most of the work I do is plotting sets of plans, CAD drafting or editing CAD drawings. Out on the field I am on a two to three man crew where we either complete land surveys, run levels, or open manholes. Most of the field work is in the Boston area and working outside is much more interesting than working inside. The WPI classes that have really helped me at work are AutoCAD, Transportation, the 2000 series and fluid mechanics. I may continue to work at this company after graduating.”
“I am a geotechnical intern at GEI and have worked on various projects. I have worked in the soils lab performing grain-size analysis and moisture content tests, as well as soil sample classification. I have worked in the field doing borings, which consists of observing and recording the drilling and classifying the samples taken. I have also done field observation work at a landfill and written several field observation reports. GEI has also had me involved in some marketing work, which consisted of researching potential project opportunities across the country, and writing a marketing report summarizing the job opportunities GEI has been tracking this year. My notes and text from Professor Mallick’s soil mechanics class has been very useful to me this summer, especially while I classify soil and work in the lab.”
Today’s civil engineers are the masterminds driving innovation and shaping our world. You are the profession’s future and have the opportunity to create remarkable projects to improve your community and make a difference in the lives of people everyday. Since 1852, ASCE has helped civil engineers find their professional home. As you set your course, and join our more than 140,000 members, ASCE will help you achieve your goals too.

Join the ASCE Student Chapter

for more info

• Contact the ASCE President: Tracygx@wpi.edu

• Check out the ASCE bulletin board across from Kaven Hall 116.

• Visit www.wpi.edu/~asce