

The following FAQ has been prepared for the Division of Construction Engineering and Management (CEM) as a result of questions prepared by students in ENGR 13100 provided by the FYE/ENGR 13100 faculty upon the review of the CEM literature for ENGR 13100.

CAREERS

How much field work vs desk work does a construction engineer do?

- It depends! A construction engineer could work anywhere from 100% desk working on pre-construction / bidding activities to nearly 100% field out on an active construction site. Many will work somewhere in the middle where they are involved in construction but also have responsibilities that require them to spend sometime in the office.

How have the industries that CEM majors enter been affected by COVID?

- Construction has been a resilient industry through COVID. In most areas, construction was deemed an essential industry so projects were not stopped. In some cases, projects were even fast tracked to take advantage of lower traffic volume.

If you have a major in CEM would you typically be more in the management position?

- For most CEM alumni, their career paths will involve reaching management positions. However, there are management positions both in and out of the field so a career path can be personalized to fit each individual.

Where do CEM engineers work outside of construction?

- Most construction engineers will focus on building infrastructure either for the general contractor or owners. Working for an owner offers a greater variety of jobs such as Oil and Gas (ExxonMobil), Aerospace (Boeing), Restaurants (McDonalds), as well as many others.
- Some CEM alumni have even branched further out to become lawyers and enter different financial discipline. In the end, a CEM degree will allow a student to pursue a very wide range of careers depending on their interests.

How many CEM graduates usually continue to graduate school?

- On average 5-15% of CEM graduates continue directly to graduate school. However, a greater number of alumni do return for graduate degrees such as MBAs at a later point.

Are there any Purdue CEM Alumni that have impacted the Construction industry greatly?

- Mike Kenig has been an influential force in the development of the construction industry through his involvement in educational endeavors and training. Please find additional information at this link: https://engineering.purdue.edu/CEM-Impact/2018_1/engagement
- Anne Wilson has been an influential leader in the Chicago area and for women in the construction industry. She has an amazing story since taking over the family business after her father's sudden death many years ago. Please find additional information at this link: https://engineering.purdue.edu/CEM-Impact/2017_1/main-feature

What does the future of construction look like?

- The construction industry has an extremely positive outlook. There has been a growth in residential building construction as well as upgrading infrastructure across the country. There are a lot of different opportunities to find the career path that fits your interests.

What kinds of materials do you frequently work with as a Construction Engineer?

- Construction engineers work with a wide range of building materials. Depending on the project / industry they could vary from asphalt, steel, wood, to final interior finishes such as tile.

What kind of interactions do you make day to day?

- Depending on the job role you will have a variety of interactions. These could include talking with subcontractors, team meetings to work through an ongoing issue, reporting out to an owner’s representative, calling the design engineers to clarify a drawing, and many more.

How often do CEM engineers work with Civil engineers and architectural engineers?

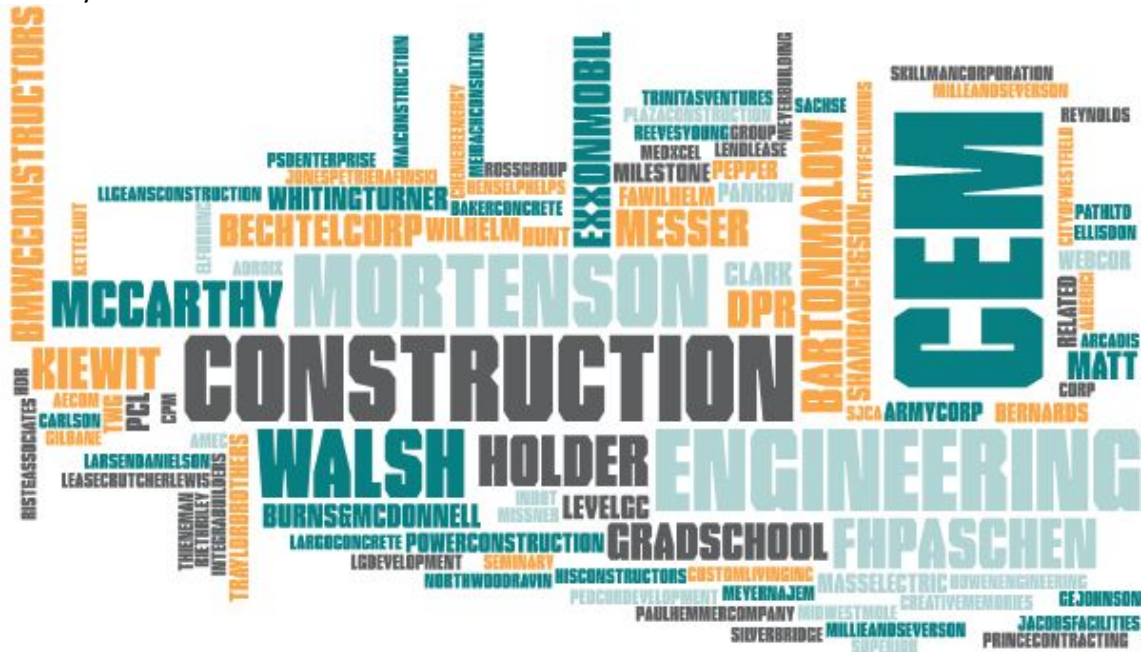
- Construction engineers will often work with civil and architectural engineers while working on a construction project to understand the engineering drawings.
- Construction engineers can also fulfill the traditional roles of a Civil engineer on a project if they choose to pursue the design side of construction.

What percentage of student work in building versus management?

- It is hard to give a percentage of students who work in the field building versus management in the office. Most career paths will include a combination of both!

What kind of companies look for CEM graduates?

- A wide variety of companies look for CEM graduates due to the unique nature that the degree combines of not only an ABET accredited engineering degree but also a management element. The companies below show where our alumni have gone to work and have representation across a wide range of industries and opportunities across the country.



What is the typical job experience like for a construction engineer?

- There is no typical job experience for a construction engineer. Construction engineers can be involved across the project life cycle from the conceptual ideas to test feasibility to the final turnover of a completed project. They can work for specialty subcontractors that focus on one element of the project (i.e. electrical or plumbing), for general contractors that coordinate the construction across multiple subcontractors, to the owner who is funding the project and is highly invested in the outcome of the final project. Construction engineers also work across so many industries including roads and bridges, hospitals, nuclear power plants, wind farms, refineries, off-shore platforms, schools, residential homes, commercial properties, college campuses, sports stadiums and so many more.

Do most construction engineers live in big cities?

- Construction engineers live all across the country. While there are many projects in big cities, there are also opportunities in smaller cities to even remote areas. It is important for students to think about if they want to work nationally or regionally in order to find a company that fits with their life goals. Wherever there are people there will be construction!

What opportunities are there in the aerospace industry for CEM students?

- In many ways building an airplane is not that different from building any other highly technical construction project. We have had students interview and work with Boeing due to their project management skill set.