Civil Engineers: An integral part of our everyday life

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Why Civil Engineer is a STEM Field --

- Science; A civil engineer has to be aware of the environment that they are going to be building in and how it will effect everything around the building.
- Technology; A civil engineer uses technology to plan, design, build, and fix.
- <u>Engineering</u>; A civil engineer falls right into this category. Other than the name, civil engineers are responsible for building our large constructions. Such as; dams, skyscrapers, bridges, and other important buildings in our everyday life.
- Math; Civil engineers take measurements of everything. They measure to know how much material they need, which requires calculations too. They take measurements to know how to fix problems. Math is a huge part of a civil engineer's career.



How do you become an civil engineer

Step one: EARN A BACHELOR'S DEGREE IN CIVIL ENGINEERING

- Classes you need to take Calculus I, II, III and Differential Equations, Data Analysis, Structural Design, Structural Analysis, Soil Mechanics, Hydraulics and Hydrology, Mechanics of Materials, Leadership and Business Principles
- College in Nevada -- University of Nevada-Reno

Step two: COMPLETE A CIVIL ENGINEERING INTERNSHIP

Most programs mandate a semester of internship. This also lets you gain some contacts in civil engineering.

Step three:

CHOOSING A SPECIALTY/CONCENTRATION

• MOST STUDENTS HAVE ONE AREA OF FOCUS. DOING THIS MEANS THAT YOU'RE STRONGER IN THAT ONE AREA THEN THOSE WITH MULTIPLE.





What do civil engineers do?

"There are many different types of jobs. For example

Construction engineers manage construction projects, ensuring that they are scheduled and built in accordance with plans and specifications. These engineers typically are responsible for the design and safety of temporary structures used during construction. They may also oversee budgetary, time-management, and communications aspects of a project.

Geotechnical engineers work to make sure that foundations for built objects ranging from streets and buildings to runways and dams, are solid. They focus on how structures built by civil engineers, such as buildings and tunnels, interact with the earth (including soil and rock). In addition, they design and plan for slopes, retaining walls, and tunnels.

Structural engineers design and assess major projects, such as buildings, bridges, or dams, to ensure their strength and durability.

Transportation engineers plan, design, operate, and maintain everyday systems, such as streets and highways, but they also plan larger projects, such as airports, ship ports, mass transit systems, and harbors.

The work of civil engineers is closely related to the work of <u>environmental engineers</u>." from <u>https://www.bls.gov/ooh/architecture-and-engineering/civil-engineers.htm#tab-2</u>

Salary

A civil engineer's salary in Nevada is 59k to 88k in Reno, NV, or 51k-100k in Las Vegas.

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Why I want to be one.

I want to be a civil engineer because my grandpa was one and from his stories it is a really fun, good job. I have always been able to figure out solutions to problems. By doing robotics, that talent has improved. I think that I would enjoy being a civil engineer. – Carter Nielson

The day in the life of a civil engineer

There is no typical day in the life of a civil engineer. A day in the life of a civil engineer involves making use of one's design and construction skills and applying them to a physically built or natural environment. They need to plan on a project, then they need to do contract writing about that project. And they need to understand the regulations of the government.

Sources

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