By studying geospatial engineering, whatever route you take, you can learn how to calculate the height of Everest, how to design and read maps and understand how important they are in the world. You’ll be able to work with geographical information systems — huge databases of information about places and buildings. You’ll know how GPS works, not only in your car but also to make sure buildings are positioned exactly where they should be. You’ll discover and find out how the police use geospatial engineering technology to map crime scenes. Here are just some of the possible routes to a career in geospatial engineering:

If you choose to stay at school and do GCSEs, maths, science, geography, history and ICT are just some of the subjects that will help you in a career in geospatial engineering.

Another option is the Construction and Built Environment Diploma where classroom learning and practical work experience combine to help you learn about the whole construction process.

Apprenticeships are available to over 16s who want to earn money while they learn geospatial engineering skills on the job.

To further your education at school or college, foundation degrees, HND/HNC and A levels will enable you to learn about geospatial engineering whilst tackling other subjects too.

Many universities offer degrees in geospatial engineering and related topics such as land management, mapping sciences, geomatics, hydrography and land surveying.

If you’re unsure which route is best for you, talk to your careers adviser or ask the Chartered Institution of Civil Engineering Surveyors for help.
travel
surveyors are wanted all over the world

make a difference
geospatial engineering professionals make a real difference to society, whether it’s helping to install a well in a remote village or building the world’s highest skyscraper

work on land and at sea
as well as working on new buildings, geospatial engineers work at sea, positioning oil rigs, pipelines and wind turbines

go above and below ground
geospatial engineers use aircraft and satellites to view the earth from above to plan new developments and monitor what’s going on, they also work underground on mining and tunnelling projects (who do you think was responsible for making sure both ends of the Channel Tunnel met in the middle?!)

did you know...
surveyors use high speed lasers
3D lasers are used to scan structures to map exactly where each particle is. The police use these scanners in accident investigations to work out how fast cars were travelling and where they were when they crashed

you’re being watched from space
geospatial engineers use satellites so powerful that they can see something the size of a football from space

GPS is getting bigger and better
more and more satellites are being launched into space by governments in Europe, the USA, Russia and China for use in GPS systems — some receivers are so accurate that they can tell you where you are down to 3cm

you could be working with the film and gaming industries
geospatial engineering technology is used in the development and design of video games and the latest CGI blockbusters

geospatial engineering

would you like to...
do you want to be...

part of a team
geospatial engineers work together with architects, civil engineers, structural engineers and builders as part of the whole construction team

the first to arrive and the last to leave
geospatial engineers are often the first on site and the last to leave — they map out the site before construction work starts and monitor the job when it’s completed

a specialist
as a geospatial engineer you can specialise in areas like map making, aerial photography, satellite positioning, information systems, coastal surveying, planning and mapping borders

doing something different
with a qualification in geospatial engineering, you could be working with archaeologists one week, police forensics the next and helping to build a football stadium the week after