

CAD Technician

A CAD technician uses computer aided design (CAD) software to create design plans for a wide range of products, systems or structures, ranging from oil rigs, buildings or cars to heating systems. The designs are either 2D (surface modelling) or 3D (solid modelling) drawings.

Other titles for the job include CAD draughtsman/woman and engineering draughtsperson.

The Work

You could be:

- discussing a design with the engineering team
- interpreting technical drawings and following instructions from the design manager
- producing clear, detailed designs using CAD system software
- working from a computer model of the item
- making calculations and drawing your ideas onscreen
- making or changing detailed diagrams so that craft or production workers can follow them
- visiting sites if working on building or structure design
- writing manuals for operation and maintenance
- explaining designs to craft or production staff in the factory.

Pay

The figures below are only a guide. Actual pay rates may vary, depending on:

- where you work
- the size of the company or organisation you work for
- the demand for the job.

Starting salaries are usually £20,000 to £25,000 a year, rising with experience to around £30,000 a year. Higher earners can make over £40,000 a year. Some employers have bonus schemes for senior staff.

Conditions

- You would spend most of your time sitting at a CAD workstation or computer.
- You would work basic office hours but you may have to work overtime to meet deadlines.
- You may visit the factory area, where it could be noisy and dusty or visit outdoor sites.

Getting In

There are several ways to enter.

- You could start by completing the Engineering Foundation Apprenticeship (FA), which you can start in S5 and study at school and college. Entry requirements vary between colleges, but you usually need 3

subjects at National 5 including English and Maths. Some colleges also ask for Physics.

- You might get a Modern Apprenticeship for example in mechanical engineering, civil engineering or building services engineering. For entry you normally need 4 subjects at National 5 including English, Maths and preferably Physics or a technological subject.
- You could take a Higher National Certificate or Higher National Diploma (HNC or HND) course in computer aided design or a relevant subject such as engineering systems. Entry requirements are usually 1-2 Highers including Maths and a science subject. If you are interested in a particular branch of work, check with the colleges which CAD packages they cover on their courses.
- Many employers specify an HNC or HND for entry.

There are jobs in many branches of industry: light and heavy engineering, construction, shipbuilding, broadcasting, telecommunications, local government, the civil service, aerospace, water and electricity supply.

What Does It Take

You need to have:

- an interest in technical drawing and computing
- good numeracy and IT skills
- patience and accuracy
- analytical skills
- good concentration and attention to detail
- good communication and team working skills
- a good technical knowledge of engineering and construction.

You need to be able to:

- work on more than one project at a time
- work under pressure and to deadlines
- visualise in three dimensions.

Training

- Training is generally on the job.
- If you do not have an HNC or HND, you may study for one part time, while you are working.
- Depending on the industry you work in, you may be able to take courses in specialised software, such as computer aided manufacturing (CAM) or computer aided engineering (CAE) systems.

Getting On

- You could move on to be a supervisor or team leader.
- Eventually you might be responsible for the overall design of a product.
- You could work abroad, or on a freelance basis.
- You could take further qualifications to become an engineering technician (EngTech) professional registered with the Engineering Council, for which you need a Scottish Vocational Qualification (SVQ) at SCQF Level 6.

- To register as an Incorporated Engineer (IEng), you need to have either a recognised Bachelor's degree or a recognised HNC or HND plus further study to Bachelor's degree level.

Contacts

Engineering Council

Tel: 020 3206 0500

Website: www.engc.org.uk

Twitter: @EngCouncil

GoConstruct

Website: www.goconstruct.org

Twitter: @GoConstructUK

Facebook: www.facebook.com/goconstructuk

SEMTA (Science, Engineering and Manufacturing Technologies Alliance)

Tel: 0845 643 9001

Email: customerservices@semta.org.uk

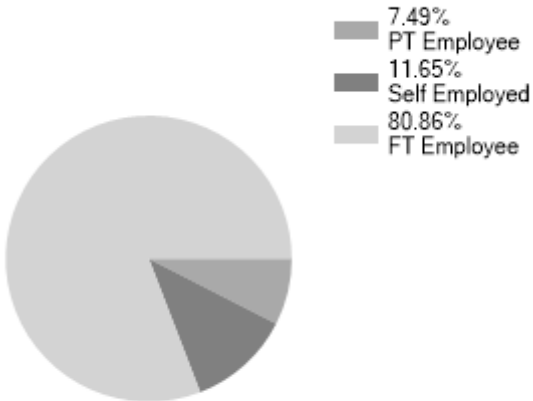
Website: www.semta.org.uk

Twitter: @SemtaSkills

Facebook: www.facebook.com/SemtaSkills?ref=hl

Statistics

Employment Status UK %



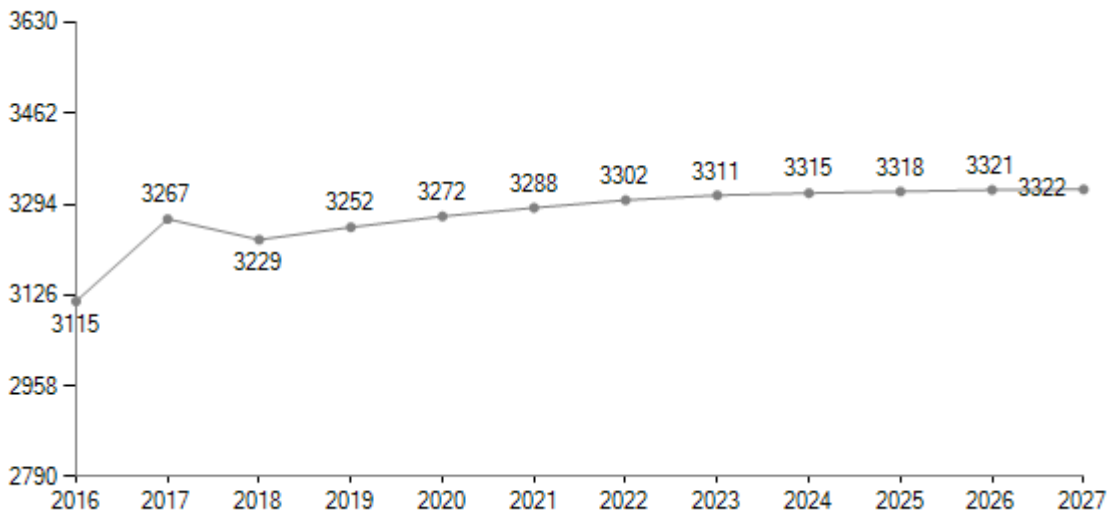
Past Unemployment - Scotland

Date	Unemployed
Dec 2016	0.61%
Dec 2018	0.12%
Mar 2019	0.12%

LMI data powered by [EMSI UK](#)

LMI data powered by [LMI for All](#)

Predicted Employment in Scotland



LMI data powered by [EMSI UK](#)