



TRAFFORD
COLLEGE



STOCKPORT
COLLEGE

ENGINEERING - DESIGN AND DRAUGHTSPERSON

Level 3,
Apprenticeship Standard

ELIGIBILITY / ENTRY REQUIREMENTS

Typically 5 GCSEs at grade 5 or higher including maths, English and science, or equivalent and/ or relevant experience.

Engineering design and draughtspersons produce designs and drawings for structures, piping, electrical systems, control and instrumentation systems and mechanical components used in industrial and commercial construction. Typically, jobholders work in a wide range of industries of national importance including power and water infrastructure, petrochemical, oil and gas, nuclear, food and drink processing.

Jobholders are based at office locations within project design teams and occasionally work at on-site locations. They are required to understand on-site hazards and health and safety requirements.

The jobholder must: Understand technical drawings and specifications and be able to create their own; identify factors likely to affect design decisions; produce CAD (computer aided design) models and engineering drawings and; be able to communicate design information to internal and external parties.

APPRENTICESHIP REQUIREMENTS

Apprentices should have a range of skills and attributes including:

- Motivation to succeed within industry
- An awareness of the demands of the Apprenticeship
- Willingness to comply with employer/training provider terms and conditions of employment
- Have the ability to apply learning in the workplace
- Willingness to work with due regard to Health and Safety of self and others
- Effective communication with a range of people.



TYPICAL JOB ROLES IN THIS AREA INCLUDE:

Electrical Design and Draughtsperson, Control and Instrumentation Design and Draughtsperson, Mechanical Design and Draughtsperson, Piping Design and Draughtsperson, Structural Design and Draughtsperson

KEY FACTS:	
Delivery location	Stretford Campus.
Typical duration	42 months.
Study mode/frequency	1 day per week at college day release plus assessment visits in the workplace.
Apprenticeship Standard	Upon completion the Apprentice will receive a Level 3 Engineering Design and Draughtsperson Standard.
Knowledge and skills	<p>Skills:</p> <ul style="list-style-type: none"> • Review and interpret technical information and requirements from different sources e.g. specifications, concepts, stakeholders • Design engineering concepts to solve engineering challenges • Identify inaccuracies or discrepancies in engineering drawings and specifications and propose solutions • Identify and assess factors that affect designs e.g. materials, application, location, risk and environment • Evaluate engineering designs to determine the most effective solution • Produce detailed engineering drawings to relevant standards and codes, using paper and computer • Check completed drawings for quality, technical compliance and completeness - both own or those of peers • Communicate and co-ordinate engineering design options with relevant stakeholders, colleagues and clients using sketches, schemes, models, detailed drawings and reports <p>Knowledge:</p> <ul style="list-style-type: none"> • Computer Aided Design (CAD) software, its appropriate application including 2D and 3D modelling • Document management and change control • Engineering codes and standards • Common engineering principles and the application of maths and science to engineering
Competency/skills or behaviours	<ul style="list-style-type: none"> • Comply with health and safety requirements and company policies and procedures at all times • Have a strong work ethic including attention to detail and commitment to completing the task in hand • Take personal responsibility for own work, set the right example for others and actively seek • Apply and uphold principles of ethics and sustainability • Commitment to advancing own learning and competence, showing a willingness to learn new skills and an openness to others' ideas and input • Use effective communication and interpersonal skills, showing sensitivity to others and working collaboratively
Functional Skills	Functional Skills will be required for English and maths at Level 2 if you have not attained a GCSE at grade 4 or above (or equivalent).
Assessment	End point assessment will include a Knowledge Test, Practical Test and Structured Interview.

For further information contact the Apprenticeship Team on **0161 886 7461** or email **apprenticeships@tcg.ac.uk**