

Job title: Chemical Engineer



Job title:	Chemical engineers develop ways to turn raw materials into everyday products.
Routes and Entry requirements:	<p>University You'll normally need a degree or postgraduate qualification in:</p> <ul style="list-style-type: none"> • chemical engineering • process engineering • biochemical engineering <p>You may be able to do a postgraduate conversion course if you have a degree in a related area like engineering, chemistry or polymer science.</p> <p>A postgraduate master's qualification like an MEng can be studied at university. This course includes independent research and gives you a greater knowledge and understanding of chemical engineering science. It could also prepare you for further postgraduate study like a PhD.</p> <p>You'll usually need:</p> <ul style="list-style-type: none"> • 4 or 5 GCSEs at grades 9 to 4 (A* to C), or equivalent, including English, maths and science • 2 or 3 A levels, or equivalent, including chemistry • a degree in a relevant subject for postgraduate study <p>Apprenticeship You may be able to do a science industry process engineer degree apprenticeship.</p> <p>You'll usually need:</p> <ul style="list-style-type: none"> • 4 or 5 GCSEs at grades 9 to 4 (A* to C) and A levels, or equivalent, for a higher or degree apprenticeship <p>Work You could start as a chemical engineering technician and do training on the job to qualify as an engineer.</p>
Skills required:	<p>You'll need:</p> <ul style="list-style-type: none"> • maths knowledge • knowledge of engineering science and technology • knowledge of chemistry including the safe use and disposal of chemicals • design skills and knowledge • knowledge of physics • analytical thinking skills • science skills • to be thorough and pay attention to detail • to be able to use a computer and the main software packages competently
What you'll do:	<p>If you work in research and development, you'll:</p> <ul style="list-style-type: none"> • test new ways to develop products in the lab • use computer models to work out the safest and most cost-effective production methods • plan how to move lab tests into a pilot production phase, then on to large-scale industrial processing • develop methods to deal with by-products and waste materials in a safe way <p>In manufacturing, you'll:</p> <ul style="list-style-type: none"> • work with plant designers to create equipment and control instruments for the production process • help to oversee the day-to-day operation of the processing plant • monitor production and deal with problems • work closely with quality control and health and safety managers
What you'll earn:	£29,000 Starter to £60,000 Experienced
Working hours, patterns and environment:	<ul style="list-style-type: none"> • Typical hours (a week) 39 to 41 • You could work evenings, weekends/ bank holidays on shifts • You could work in a laboratory, in an office or at a manufacturing plant. • Your working environment may be outdoors some of the time. • You may need to wear protective clothing.
Career path and progression:	<p>With experience, you could progress to senior process or design engineer, research and development manager. You could go on to be a plant manager, or overall operations manager.</p> <p>You could also move into consultancy work.</p>