What do chemical product engineers do?
Chemical product engineers identify customer needs and create innovative products that meet those needs. They create new materials, processes, and technologies in industries producing pharmaceuticals, cosmetics, biomedical devices, and advanced materials. As a product engineer, you can develop products people use in everyday life, designing new shampoos, paints, or foods to be sustainable, environmentally friendly, affordable, and high performance.

Chemical Product Engineering is the new frontier for chemical engineers, with a strong emphasis on product design and development. Its potential uses are practically unlimited in industrial and scientific fields. As a product engineer your success is measured by the ability to develop innovative solutions, affordably apply new discoveries in chemistry and chemical engineering, and deliver novel products for the future.

What will your study involve?
This degree focuses on product design and development in a collaborative and innovative culture. You'll build on study of chemistry, physics, engineering, and economics to create commercial products in fields spanning the pharmaceuticals, cosmetics, agricultural and food industries. The degree ensures that graduates can meet rapidly changing customer demands for new materials, products, and ingredients in the global marketplace.

UNSW Chemical Engineering
• UNSW Chemical Engineering is ranked 2nd in Australia (Academic Ranking of World Universities (ARWU), 2022).
• Close links with key industrial, commercial and professional organisations providing unique student-led projects and industry-based training.
• Hands on lab-based courses in state-of-the-art labs using real process equipment.
• Product design Thesis projects developing actual product prototypes along with viable commercial intellectual property strategies.

Program details
Lowest Selection Rank (2022): 90
Duration: Four-year embedded honours degree
Study areas: Chemical Product Design, Chemical Reaction and Separation Engineering, Organic and Inorganic Chemistry, Advanced Thermodynamics, Polymer Science, Sustainability and Management
Assumed knowledge: Mathematics Extension 1, Physics, Chemistry

Alternative Entry: UNSW offers the Faculty of Engineering Admission Scheme (FEAS) which is a pathway for students interested in studying undergraduate engineering to support their academic results, find out more at unsw.to/feas

Accreditation
Your Bachelor of Engineering (Honours) degree is recognised globally, is accredited with Engineers Australia, and is also acknowledged by the Washington Accord, which lets you work in over 20 countries across the globe upon graduation

Career options
This broad degree opens doors to many different industries including energy, materials science, fine chemicals, pharmaceuticals, health, cosmetics, household care, food, the environment and electronics.
With a strong foundation in chemical process engineering, the product design element of this degree will give you a valuable employability edge. The ability to design and take a product to market is a highly sought after skill among employers.
### Example study plan

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<td>Maths 1A</td>
<td>Introduction to Engineering Design &amp; Innovation</td>
<td>Engineering Chemistry 1A</td>
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<td>YEAR 3</td>
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<td>Product Design Project Thesis A</td>
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You'll be required to complete 60 days of Industrial Training throughout your degree.

* Recommended elective

This is a sample degree outline only and may be subject to change. Please refer to the UNSW Handbook for further information and relevant course codes.