

Chemical Engineering for Other Engineers

12–14 June & 6–8 November 2018, Rugby, UK

Chemical Engineering for Scientists

10–12 April & 20–22 November 2018, Rugby, UK



Chemical Engineering for Scientists

This course has been specifically designed for those with a science background, who want to understand more about chemical engineering and how to apply the methods to their day-to-day role. It reveals the mind-set of chemical engineering, examining the core concepts and key features of the discipline. Particular emphasis will be placed on conveying concepts of practical engineering design and operation.

Who will benefit

Chemists, physicists, biologists, pharmacists, research scientists and environmental scientists.

www.icheme.org/scientists

Chemical Engineering for Other Engineers

This course is intended for engineers from non-chemical backgrounds who want to improve the breadth and depth of their chemical engineering knowledge. It reveals the mind-set of chemical engineering, examining the core concepts and key features of the discipline. Particular emphasis will be placed on conveying the concepts of chemistry that underpin the design and operation of many unit operations, including reactor design and separation processes.

Who will benefit

Mechanical engineers, production engineers, control engineers, civil engineers, instrumentation engineers, electrical engineers, safety engineers, maintenance engineers, plant engineers, project engineers as well as technicians and operators.

www.icheme.org/chemical-engineering

Course outline

- what is chemical engineering and what is unique about chemical engineering?
- engineering concepts (*scientists course only*)
- the engineering approach to problem-solving (*scientists course only*)
- review of engineering (*engineers course only*)
- transport processes – heat transfer, mass transfer, fluid dynamics
- essential chemistry – the aspects that are essential to chemical engineers
- initial design steps – identifying a process route, basic conceptual process design and flow-sheeting
- mass and energy balances
- reactor design
- separation processes
- process control
- process safety
- scale-up
- sustainability

In-company training

If you have several colleagues interested in either of these courses, why not consider running them in-house?

For a quote or to discuss your requirements contact courses@icheme.org

Learning outcomes

These courses will help you to take on a professional role that involves aspects of chemical engineering and enable you to communicate and collaborate more effectively with chemical and process engineers.

It will help you to understand:

- what is chemical engineering and what is unique about chemical engineering?
- the factors that distinguish chemical engineers from scientists or other engineers
- how your scientific knowledge relates to chemical engineering (*scientists course only*)
- the essential principles of chemistry, and how to apply them to solve simple problems (*engineers course only*)
- how to demonstrate an engineer's problem-solving approach (*scientists course only*)
- the operating principles for the common unit operations
- the principles of heat, mass, and momentum transfer, and how to solve simple problems
- basic conceptual process design and flow-sheeting
- the principles of mass and energy balances and how to solve simple problems
- the principles of reactor design
- key aspects of process control
- the various approaches to process safety
- the concept of process equipment scale-up and how to apply this to simple problems

Venue

IChemE, Davis Building,
Railway Terrace,
Rugby, CV21 3HQ, UK

Tel: +44 (0)1788 578214

www.icheme.org

Fees

IChemE member **£1400 + VAT**

Non-member **£1650 + VAT**

Discounts

Discounts are available to companies booking more than one place:

2 places **5% discount**

3 places **10% discount**

4 or more places **15% discount**

Multiple places must be booked at the same time to qualify.

Find out more and book

Read more details about the course and book your place at

www.icheme.org/scientists

www.icheme.org/chemical-engineering

t: +44 (0)1788 534430

e: courses@icheme.org

Accommodation

Accommodation is not included in the delegate fee. If you need any help with booking a hotel, contact our agent, Trinity Conferences on **+44 (0)1780 484050**. Remember to quote IChemE when booking.

CPD **20.5 hrs**

Maximum duration for CPD recording



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