

Upskilling @ Strathclyde



University of
Strathclyde
Glasgow

Physics for Engineers

Learn for free, in your own time and at your own pace

The Faculty of Engineering at Strathclyde is delighted to offer a newly developed course, Physics for Engineers, launching 18th April 2022. Apply Now!

This course will be taught exclusively online and is fully funded through the Scottish Funding Council (SFC), together with support from The Allan Glen's Endowment Scholarship Trust, which enables us to offer it free of charge to learners who are domiciled in Scotland. [Apply here](#). If you are not domiciled in Scotland, please contact eng-upskilling@strath.ac.uk to discuss how you might still avail of the course and what options are available to you.

The course aims to provide an understanding of physics and investigate the applications of physics in the context of engineering. The course focuses on physics topics relevant to a range of engineering disciplines and aims to develop a solid foundation of physics applicable to common engineering problems. The course encourages analytical thinking, solving problematic situations and making reasoned evaluations.

There will be 4 main sections, covering generic physics skills relevant across a broad range of engineering disciplines:

1

Scalar and Vector Quantities

– vector definition, vector addition, resultant vectors, vector decomposition to rectangular components.

2

Equations of motion

– definition of displacement, velocity and acceleration; derivation of kinematic relationships and describe motion using graphical or tabular representations.

3

Force, Energy and Power

– unbalanced forces and equilibrium, free-body diagrams and moments applied to simple beams.

4

Electronic and Electrical Fundamentals

– alternating and direct current, potential difference, resistance, capacitance and practical voltage sources.

Delivery: This module is delivered online and flexibly from **18th April 2022 to 15th July 2022**. You can start and end on any date in between, learning at your own pace in your own time. The course will be taught exclusively online through a blend of self-guided lessons, worked examples and online quizzes. You will have the opportunity to develop and practice your understanding through online quizzes where feedback will be provided in preparation for the class assessment – three online tests. Upon successful completion of the assessment, you will receive a certificate from the University of Strathclyde. You can attempt the three assessments any number of times and there will be online tutor support to help you.

This course is suitable for:

- Individuals interested in a career in engineering or considering studying engineering in the future
- Anyone thinking about an Engineering Apprenticeship, Graduate Apprenticeship or currently undertaking an Apprenticeship
- Anyone thinking about or returning to a career in Engineering or who has identified a skills gap in their current job
- Anyone looking to reskill or upskill
- Supporting Improving Gender Balance Scotland Initiatives

Credit Value and Pre-requisites: This course is worth 10 credits at SCQF Level 7. To be eligible, you will have Nat 5 Physics and Nat 5 Maths, or equivalent qualifications/experience.

How to apply: for Scottish domiciled applicants, [apply here](#). For anyone out with Scotland, please email eng-engineering@strath.ac.uk for more details about how you can register for the course.

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