

Engineering and Physical Sciences

Foundation Certificate

Course options

2 terms

Entry requirements: completion of high school*, and at least UKVI IELTS 5.5 (minimum 5.0 in all skills)

Course start: September 2018, January 2019

Course length: 6 months to 1 academic year

Degree entry: September 2019

Tuition fees: £16,450 for January 2019 start; £17,200 for September 2018 start

Important information:

This course is taught by staff at the University of Nottingham's Advanced Manufacturing Building, so you'll study your pathway course at the University itself, rather than the International College. You will benefit from great support and educational expertise, just like all pathway course students.

The application process for this course is therefore a little different from that of other pathway courses. Once you've accepted your offer and fulfilled any related conditions, your CAS will be issued to you by the University of Nottingham.

From here, you will be guided by Kaplan's Admissions team, like all pathway course students, but the University of Nottingham will take care of your accommodation and arrival arrangements.

* Including the equivalent of GCSE Maths at grade C/4 or above

Core modules

All students on this Foundation Certificate will take:

Computer Methods

- Basic programming techniques
- Data structures and formats in MATLAB

Foundation Mathematics 1 and 2

- Key ideas in mathematics
- Geometry and algebra

Foundation Mechanics

- Scalars and vectors in mechanics
- Response of rigid structures to imposed forces

Properties of Matter / Vibration and Waves

- Atomic structures and the behaviour of atoms
- Physical explanations of vibrations and waves

Study Skills

- Key academic skills for degree study
- Communication, research and presentation

English for Engineering and Science (if you need English language support)

- English skills in listening, reading, writing and speaking
- Presentations and writing laboratory reports

Pathway modules

You'll also study modules in one of the following pathways. Your pathway is determined by your degree subject at the University of Nottingham.

Computer Science pathway

Computer Modelling

- Using MATLAB to solve engineering and mathematical problems

Electrical Circuit Principles

- Circuits and circuit analysis
- AC circuits, circuit analysis techniques and electrical resonance

Electricity and Magnetism

- Principles of electricity and magnetism
- Inductors, capacitors and semiconductors

Engineering pathway

Electrical Circuit Principles

- Circuits and circuit analysis
- AC circuits, circuit analysis techniques and electrical resonance

Electricity and Magnetism

- Principles of electricity and magnetism
- Inductors, capacitors and semiconductors

Further Foundation Mechanics

- Behaviours of rigid structures under circular and simple motion
- Evaluating experimental data

— or —

Physics and Maths pathway

Further Foundation Mechanics

- Behaviours of rigid structures under circular and simple motion
- Evaluating experimental data

The Universe

- Astronomy and cosmology
- Gravitational fields, stellar evolution and the nature of the universe

Molecules on the Move

- Thermal and mechanical properties of matter



Degree possibilities

This Foundation Certificate can lead to a range of undergraduate degree subjects at the University of Nottingham. For example, you could progress to:

- Aerospace Engineering
- Architecture
- Chemical Engineering
- Civil Engineering
- Computer Science
- Data Science
- Electrical and Electronic Engineering
- Electrical Engineering
- Manufacturing Engineering
- Mathematics
- Mechanical Engineering
- Physics
- Product Design and Manufacture

For a full list of degree options, see page 36.

Career possibilities

This educational route can open up many career options for you. You could become a:

- Aerospace Engineer
- Architect
- Chemical Engineer
- Civil Engineer
- Computer Scientist
- Data Analyst
- Electrical Engineer
- Manufacturing Engineer
- Mechanical Engineer
- Physicist
- Product Designer
- Scientific Researcher
- Statistician



Have any questions?

Contact our team for help:
kaplanpathways.study/contact-nottingham