

Science & Engineering Foundation

Science & Engineering Foundation factsheet

Section 1: Overview

This course is for:

- Academically strong students who want to study a science or engineering related degree at a UK university
- Students who have completed 12 years of school in their home country

Key Facts

Start Dates:

- 6 September 2021
- 3 January 2022

Colleges:

- Bournemouth
- Brighton
- London
- Oxford

Entry level:

- Academic: Completed 11-12 years of schooling
- English: IELTS 5.0 or equivalent

Minimum age:

- 16.5

Length:

- 1 Academic Year (3 terms)

Lessons:

- Average 21 hours per week (plus homework and private study)

Class size:

- 8 - 12

Learning outcomes

- Gain UK national university entrance qualification
- Raise English to university level
- Develop study skills required at degree level
- Develop specialist subject expertise

Section 2: Science & Engineering Foundation at Kings **Exceptionally small classes**

- There are only 8 to 12 students per class at Kings.
- This means plenty of one-to-one contact with your teacher.

Practical, real-life experience

You find that your learning come alive on the Science and Engineering Foundation.

Educational visits are built into the structure of the programme.

Recent visits have included:

- Google Science Fair
- Oxford University laboratory visit
- The Royal Society Summer Science exhibition
- BMW Factory
- Big Bang London
- The Engineer and Science Show

Section 3: Course structure and content

Core subjects

These give you the vital platform you need to acquire subject specific knowledge and will be taught across the whole academic year.

- Communications and Study Skills
- Data Handling and Information Technology

Science and Engineering modules

Maths (compulsory)

Term 1

- Basic Algebra and Quadratic Functions
- Equations and Inequalities
- Coordinate Geometry
- Curve Sketching
- Binomial Theorem
- More Algebra and Functions
- Graphs of Trigonometric Functions
- Sequences and Series
- Trigonometric Identities and Equations
- Vectors

Term 2

- Differentiation 1
- Integration 1
- Exponential and Logarithmic Functions
- Algebraic Functions and Partial Fractions
- Sequences and Series
- Radian Measure

Term 3

- Trigonometry
- Further Trigonometric Identities
- Differentiation 2
- Integration 2

Mechanics in Term 3

- Modelling
- Constant acceleration
- Forces and Motion
- Variable acceleration
- Moments
- Forces and friction
- Application of forces

Additional modules (elective)

Depending on your intended degree, choose three from:

- Biology
- Chemistry
- Physics
- Further Maths

Sample Timetable

Sample academic calendar (2021-2022)

Year 1

September

October

November

December

January

- 6th: term starts
- 18th-22nd half term
- **Progress tests**
- University fairs and talks
- 10th: term ends
- **End of term exams**
- 3rd: term starts
- 15th: UCAS deadline

February

March

April

May

June

- 10th-11th half term
- **Progress tests**
- 18th: term ends
- **Mock exams**
- 4th: term starts
- **Progress tests**
- **Final exams**
- 10th: term ends

Progression

Below are some examples of the Science and Engineering degree programmes that our recent alumni have gone on to study.

Recent alumni

Amr Faour

- Chemistry/Maths/Physics/Data/CSS
- University of Nottingham
- Pharmacy

Chian Kiat Lai

- Chemistry/Maths/Physics/Data/CSS
- University of Surrey
- Civil Engineering

Leonor Hellmund Mancera

- Biology/Chemistry/Physics/Data/CSS
- University of Nottingham
- Biomedical Materials Science

Thibault Fievez

- Chemistry/Maths/Physics/Data/CSS
- University of Bath
- Civil Engineering