

## International Year One in Engineering at Kaplan International College London: module information

For degree entry from September 2020

ALL STUDENTS WILL STUDY THE FOLLOWING MODULES TO GAIN A SOLID BASE OF SKILLS:

- **Electrical and Electronic Engineering Principles 1**
- **Language for Study 3**
- **Mathematics for Engineering**
- **Research, Design and Development**
- **Skills for Study 2**



### PATHWAY MODULES

YOU'LL ALSO STUDY MODULES IN ONE OF THE FOLLOWING PATHWAYS. YOUR PATHWAY IS DETERMINED BY YOUR DEGREE SUBJECT AT ASTON UNIVERSITY.

#### ELECTRONIC PATHWAY

- **Electrical and Electronic Engineering Principles 2**
- **Introduction to Digital Electronic Systems**

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#### MECHANICAL PATHWAY

- **Mechanical Stress and Dynamics**
- **Thermofluids**

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### EXTRA MODULES TO HELP YOU REACH UNIVERSITY: 2.5 AND 3-TERM COURSES

IF YOU'RE TAKING A 2.5 OR 3-TERM COURSE, YOU'LL STUDY THE RELEVANT MODULES ABOVE, PLUS:

- **Language for Study 1**
- **Language for Study 2**
- **Skills for Study 1**

## EXTENDED ENGLISH AND SKILLS MODULES

IF YOU DON'T QUALIFY FOR ENTRY TO THE 2, 2.5 OR 3-TERM COURSE ABOVE, YOU COULD TAKE A COURSE THAT INCLUDES EXTENDED ENGLISH AND SKILLS (EES). DURING A COURSE WITH EES, YOU'LL STUDY THE RELEVANT MODULES ABOVE, PLUS EXTRA MODULES COVERING:

- **General English**
  - **Reading and Writing**
  - **Speaking and Listening**
  - **Study Skills Preparation**
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## MODULE SUMMARIES – DETAILS OF WHAT YOU'LL STUDY

### **Electrical and Electronic Engineering Principles 1**

Fundamentals principles of electrical and electromagnetic signals, and electronic components and circuit design.

### **Language for Study 3**

Develop your reading, writing, listening and speaking skills, and learn how to make complex academic arguments in English.

### **Mathematics for Engineering**

Learn mathematical methods, symbolism and notation of engineering, as well as calculus differentiations, integration and differential equations.

### **Research, Design and Development**

Learn about the methods, tools, manufacturing techniques and materials used in engineering design, planning and implementation of a practical group project.

### **Skills for Study 2**

Improve your analytical skills in written and spoken information, and practise a university assignment.

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## PATHWAY MODULES

### **Electrical and Electronic Engineering Principles 2**

Analyse magnetic, electromagnetic and communications systems, and use mathematical and simulation tools to solve practical problems.

### **Introduction to Digital Electronic Systems**

Gain an understanding of microprocessor based digital systems, and engineering principles and concepts of microprocessor design and performance.

### **Mechanical Stress and Dynamics**

Develop an understanding of dynamics including stress and strain, shear force and bending, and Newton's laws of motion, momentum and force impulse.

### **Thermofluids**

Understand fluid dynamics and thermodynamic principles, and analyse engineering problems in context.

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## EXTRA MODULES FOR 2.5 AND 3-TERM COURSES

### **Language for Study 1**

Learn basic English skills in listening, reading, writing and speaking.

### **Language for Study 2**

Improve your English skills in listening, reading, writing and speaking.

### **Skills for Study 1**

Develop essential presentation, note-taking and essay-writing skills.

## EXTRA MODULES FOR COURSES WITH EXTENDED ENGLISH AND SKILLS

### **General English**

Develop your English language accuracy and range to engage in everyday situations whilst living in the UK.

### **Reading and Writing**

Learn basic English reading and writing skills so that you can communicate effectively.

### **Speaking and Listening**

Practise listening and speaking so that you are better prepared for academic debate and discussion.

### **Study Skills Preparation**

Gain an introduction to the wide range of skills and strategies you'll need to succeed at university, such as research methods and using and citing sources.

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Note: this information refers to courses that will run in the 2019-20 academic year, and is correct at the time of publication. Published October 2018.