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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OR

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MECHANICAL PATHWAY
- Mechanical Stress and Dynamics
- Thermofluids

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:

- English for Academic Study 3
- Independent and Collaborative Study
- Reading and Writing 3
- Speaking and Listening 3

EXTRA MODULES TO HELP YOU REACH UNIVERSITY: 3.5 AND 4-TERM COURSES

IF YOU'RE TAKING A 3.5 OR 4-TERM COURSE, YOU'LL STUDY THE RELEVANT MODULES ABOVE, PLUS:

- English for Academic Study 2
- Reading and Writing 2
- Speaking and Listening 2
- Study Skills Preparation
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.

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.

EXTRA MODULES FOR 2.5 AND 3-TERM COURSES

English for Academic Study 3
Expand your knowledge of English grammar and vocabulary to the level required for degree study.

Independent and Collaborative Study
Work individually and in teams on an academic task, and practise applying your subject knowledge and study skills.

Reading and Writing 3
Develop your English reading and writing skills to a sufficient level to communicate complex ideas.

Speaking and Listening 3
Improve your ability to listen and speak in English, allowing you to fully engage with academic topics.

EXTRA MODULES FOR 3.5 AND 4-TERM COURSES

English for Academic Study 2
Improve your English grammar and vocabulary in order to communicate in an academic environment.

Reading and Writing 2
Develop your English reading and writing so that you can understand and articulate ideas and reasoning.

Speaking and Listening 2
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.

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