

Module Specifications

Year/Level: 6
Programme: Mechanical & Mechatronics

Module:	Control Systems	Module Code:	6FTC2033	Credits:	15
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Module Description:

Mandatory

The aims of this module are to enable students to... further develop their ability to analyse the performance of control systems and design controllers to modify the performance of control systems.

Module:	Industrial Robotics	Module Code:	6FTC2034	Credits:	15
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Module Description:

Mandatory

The aims of this module are to enable students to... gain understanding of the industrial advantages of automated industrial robotics, their functionality, control, maintenance and process control.

Module:	Mechatronics Design	Module Code:	6FTC2035	Credits:	15
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Module Description:

Mandatory

The aims of this module are to enable students to... gain experience in designing a product that contains electrical, electronic and mechanical components that are integrated to enable the control and operation of the product by the end user.

Module:	Analysis of Applied Control Systems	Module Code:	6FTC2036	Credits:	15
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Module Description:

Mandatory

The aims of this module are to enable students to... continue to develop a further understanding of Control; Systems analysis, developing stability models and using the analysis techniques learned in order to develop controllers to overcome instability. Students will complete this by using the understandings of MATLAB and Simulink at Level 5 to complete new analysis provided through the software.

Module:	Micro-Engineering & Micro-Technology	Module Code:	6FTC2037	Credits:	15
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Module Description:

Mandatory

The aims of this module are to enable students to... develop and understanding of the principles required for innovative, integrated micro engineering design and manufacture and further develop students ability to work in multidisciplinary teams to design a micro engineering product

Module:	Individual Major Project	Module Code:	6FTC2038	Credits:	30
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Module Description:

Mandatory

The aims of this module are to enable students to... plan, organize and execute an individual programme of work related to a chosen field of study, requiring the critical review of a subject area, analysis and synthesis of results, alternatives or concepts, the use of problem solving skills, the demonstration of initiative and evidence of original thought; develop the ability to manage time and resources effectively; further develop their ability to communicate both orally and in writing; gain an awareness of the legal, social, ethical and environmental context under which engineers are expected to operate.

Module:	Mechanics and Properties of Materials	Module Code:	6FTC2039	Credits:	15
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Module Description:

Mandatory

The aims of this module are to enable students to... extend the student's knowledge of the analysis of structural components subjected to complex stress/strain fields; enable students to select materials and their processing in a design situation, by matching properties of specific materials with engineering requirements; provide an understanding of the possible modes of failure of engineering materials during service.