University of Glasgow
James Watt School of Engineering
Course Selection Information Pack

For incoming (visiting) students

Updated: 24 June 2025

Visiting students are expected to choose courses from one of the following 3 options:

1. Option 1: Courses from a single degree programme for Level 3.
2. Option 2: Courses from a single BEng degree programme for Level 4.
3. Option 3: A combination of courses from a single MEng degree programme in Levels 4 and 5.

These guidelines are in place to alleviate timetabling issues which would otherwise arise for both class schedules and exams.

It is your responsibility, together with your home institution to do a course mapping exercise to ensure the subjects you are choosing are suitable, and your learning outcomes are being achieved. If you have a gap that doesn't fit unfortunately the James Watt School of Engineering will not be able to accommodate this request.

To assist with the selection of courses, please see the tables below for each degree programme.

Changes on arrival are not normally accommodated and subject to class capacity.

Please note that there are no resits available on Level 4 & 5 courses. Level 3 courses will have a resit.

Final Year Project courses will not be available for 25/26 (ENG4110P).

Frequently Asked Questions

You only offer 40-50 credits in one semester for my discipline, can I choose from another?

No, you will need to move discipline completely or find a course in another school.

Can I choose courses from Level 1 or 2?

No, we do not allow any incoming students to be enrolled onto Level 1 or 2 courses. There are no exceptions.

Can I choose courses across multiple levels?

No, you must select within the parameters of a single degree programme for Level 3, a single degree programme for Level 4 BEng or a combination of courses from a single degree programme in Level 4&5 MEng.

Aeronautical Engineering

Option 1: Level 3

Course Code	Course	Credits	Semester
ENG3006	Aircraft Design 3	10	2
ENG3015	Control 3	10	2
ENG3034	Instrumentation and Data Systems 3	10	2
ENG3036	Simulation of Engineering Systems 3	10	1
ENG3039	Dynamics 3	10	1
ENG3042	Propulsion and Turbomachinery 3	10	1
ENG3059	Aircraft Performance 3	10	1
ENG3060	Flight Mechanics 3	10	2
ENG3062	Aircraft Structural Analysis and Design 3	10	2
ENG3081	Aircraft Structures and Materials 3	10	1

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
ENG4013	Aerospace Design Project 4	10	2
ENG4023	Aircraft Vibration and Aeroelasticity 4	10	2
ENG4025	Finite Element Analysis 4	10	1
ENG4037	Computational Fluid Dynamics 4	10	2
ENG4042*	Control 4	20	1
ENG4074	High Speed Aerodynamics 4	10	2
ENG4079	Industrial Aerodynamics 4	10	2
ENG4088	Lasers and Electro-Optic Systems M4	20	1
ENG4102	Physics of Fluids 4	10	1
ENG4121	Space Flight Dynamics 4	10	1
ENG4175	Autonomous Vehicle Guidance Systems 4	10	2
ENG4179	Thermal Engineering 4	20	1
ENG4184	Navigation Systems 4	10	1
ENG4185	Radar and Electro-optic Systems 4	10	2
ENG4194	Aerospace Propulsion 4	10	2
ENG4195*	Control Systems Analysis and Design 4	10	1
ENG4196	Rotorcraft Aeromechanics 4	10	2
ENG4202	Engineering Optimisation	10	2
ENG4206	Spacecraft Systems 4	10	1

* ENG4042 and ENG4195 cannot be both selected

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
ENG4023	Aircraft Vibration and Aeroelasticity 4	10	2
ENG4025	Finite Element Analysis 4	10	1
ENG4042 *	Control 4	20	1
ENG4074	High Speed Aerodynamics 4	10	2
ENG4079 †	Industrial Aerodynamics 4	10	2
ENG4088	Lasers and Electro-Optic Systems M4	20	1
ENG4102	Physics of Fluids 4	10	1

ENG4137	Vibration 4	20	2
ENG4175 ‡	Autonomous Vehicle Guidance Systems 4	10	2
ENG4179	Thermal Engineering 4	20	1
ENG4184	Navigation Systems 4	10	1
ENG4185	Radar and Electro-Optic Systems 4	10	2
ENG4194 §	Aerospace Propulsion 4	10	2
ENG4195 *	Control Systems Analysis and Design 4	10	1
ENG4196 ‖	Rotorcraft Aeromechanics 4	10	2
ENG4206	Spacecraft Systems 4	10	1

* ENG4042 and ENG4195 cannot be both selected

Course Code	Course	Credits	Semester
ENG5009	Advanced Control 5	10	2
ENG5017 ‡	Autonomous Vehicle Guidance Systems M	10	2
ENG5031	Fault Detection, Isolation and Recovery	10	2
ENG5048 †	Industrial Aerodynamics M	10	2
ENG5052	Materials Engineering	10	2
ENG5072	Radar and Electro-Optic Systems M	10	2
ENG5081	Spacecraft Systems 5	10	2
ENG5263	Aeroelasticity and Aeroacoustics 5	10	2
ENG5265 ‖	Rotorcraft Aeromechanics M	10	2
ENG5278	Advanced Aerodynamics 5	10	2
ENG5303	Advanced Thermal Engineering 5	10	2
ENG5307 *	Computational and Experimental Fluid Dynamics 5	10	2
ENG5313 §	Aerospace Propulsion M	10	2

* ENG5307 – student numbers on this course may be capped

† ENG4079 and ENG5048 cannot be both selected

‡ ENG4175 and ENG5017 cannot be both selected

§ ENG4194 and ENG5313 cannot be both selected

‖ ENG4196 and ENG5265 cannot be both selected

Aerospace Systems

Option 1: Level 3

Course Code	Course	Credits	Semester
ENG3005	Aerospace Team Design Project 3	10	2
ENG3014	Communication Systems 3	10	1
ENG3015	Control 3	10	2
ENG3023	Electromagnetic Compatibility 3	10	2
ENG3034	Instrumentation and Data Systems 3	10	2
ENG3036	Simulation of Engineering Systems 3	10	1
ENG3039	Dynamics 3	10	1
ENG3042	Propulsion and Turbomachinery 3	10	1
ENG3043	Real Time Computer Systems 3	10	1
ENG3059	Aircraft Performance 3	10	1
ENG3060	Flight Mechanics 3	10	2
ENG3091	Advanced Programming & Software Engineering 3	10	2

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
ENG4042	Control 4	20	1
ENG4121	Space Flight Dynamics 4	10	1
ENG4175	Autonomous Vehicle Guidance Systems 4	10	2
ENG4184	Navigation Systems 4	10	1
ENG4185	Radar and Electro-Optic Systems 4	10	2
ENG4194	Aerospace Propulsion 4	10	2
ENG4196	Rotorcraft Aeromechanics 4	10	2
ENG4088	Lasers and Electro-optic Systems 4	20	1
ENG4079	Industrial Aerodynamics 4	10	2
ENG4202	Engineering Optimisation	10	2

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
ENG4042	Control 4	20	1
ENG4121	Space Flight Dynamics 4	10	1
ENG4175 ‡	Autonomous Vehicle Guidance Systems 4	10	2
ENG4184	Navigation Systems 4	10	1
ENG4185 *	Radar and Electro-Optic Systems 4	10	2
ENG4194 §	Aerospace Propulsion	10	2
ENG4196 ‖	Rotorcraft Aeromechanics 4	10	2
ENG4088	Lasers & Electro-Optic Systems 4	20	1
ENG4079 †	Industrial Aerodynamics 4	10	2
ENG4202	Engineering Optimisation	10	2

Course Code	Course	Credits	Semester
ENG5009	Advanced Control 5	10	2
ENG5017 ‡	Autonomous Vehicle Guidance Systems M	10	2

ENG5031	Fault Detection, Isolation and Recovery	10	2
ENG5072 *	Radar and Electro-Optic Sys M	10	2
ENG5081	Spacecraft Systems 5	10	2
ENG5220	Real Time Embedded Programming	20	2
ENG5265 ‖	Rotorcraft Aeromechanics M	10	2
ENG5313 §	Aerospace Propulsion M	10	2
ENG5048 †	Industrial Aerodynamics M	10	2

* ENG4185 and ENG5072 cannot be both selected

† ENG4079 and ENG5048 cannot be both selected

‡ ENG4175 and ENG5017 cannot be both selected

§ ENG4194 and ENG5313 cannot be both selected

‖ ENG4196 and ENG5265 cannot be both selected

Biomedical Engineering

Option 1: Level 3

Course Code	Course	Credits	Semester
BIOL2043	Human Biological Sciences 2	30	2
ENG3090	Biomedical Engineering Skills 3	10	1 & 2
ENG3011	Biological Fluid Mechanics 3	10	1
ENG3015	Control EE3	10	2
ENG3034	Instrumentation and Data Systems 3	10	2
ENG3036	Simulation of Engineering Systems 3	10	1
ENG3038	Microscopy and Optics 3	10	1
ENG3084	Biomechanics 3	10	1
PHYS4013	Medical Imaging	10	2
STATS3002	Statistics for Biomedical Engineering 3	10	1

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
BIOL4124	Tissue and Cell Engineering 4	20	1
ENG4004	Materials Engineering 4	10	2
ENG4025	Finite Element Analysis 4	10	1
ENG4036	Biosensors and Diagnostics 4	10	2
ENG4113	Rehabilitation Engineering 4	10	2
ENG4189	Bioethics for Biomedical Engineering 4	10	2
ENG4191	Signal Processing of Biosignatures 4	10	1
ENG5321	Entrepreneurship in BME	20	2
ENG4042 *	Control 4	20	1
ENG4195 *	Control System Analysis and Design 4	10	1
ENG4193	Ultrasound Technology and Applications 4	10	1
ENG4053	Digital Signal Processing 4	20	1
ENG4098	Microelectronics in Consumer Products 4	10	1
ENG4122	Structural Analysis 4	10	2
ENG4202	Engineering Optimisation	10	2

* Please note that you cannot select both ENG4195 and ENG4042

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
ENG4036	Biosensors and Diagnostics 4	10	2
ENG4113	Rehabilitation Engineering 4	10	2
ENG4189	Bioethics for Biomedical Engineering 4	10	2
ENG4191	Signal Processing of Biosignatures 4	10	1
BIOL4124	Tissue and Cell Engineering 4	20	1
ENG4004	Materials Engineering 4	10	2
ENG4025	Finite Element Analysis 4	10	1
ENG4042 *	Control 4	20	1
ENG4053	Digital Signal Processing 4	20	1
ENG4098	Microelectronics in Consumer Products 4	10	1
ENG4122	Structural Analysis 4	10	2
ENG4193	Ultrasound Technology & Applications 4	10	1

ENG4195 *	Control System Analysis and Design 4	10	1
ENG4202	Engineering Optimisation	10	2

* Please note that you cannot select both ENG4195 and ENG4042

Course Code	Course	Credits	Semester
ENG5321	Entrepreneurship in Biomedical Engineering	20	2
ENG5281	Energy in Biological Systems M	10	2
ENG5282	Scaffold and Tissues M	10	2
ENG5316	Advanced Ultrasonics	10	2
ENG5220	Real Time Embedded Programming *[pre-requisite: ENG4053 Digital Signal Processing 4]*	20	2
ENG5227	Structures Under Extreme Loads M *[pre-requisite: ENG4025 Finite Element Analysis 4]*	10	2
ENG5300	Materials Engineering M5	10	2
ENG5009	Advanced Control 5 *[pre-requisite: ENG4042 Control 4]*	10	2

Civil Engineering

Option 1: Level 3

Course Code	Course	Credits	Semester
ENG3046	Structural Design 3	10	1
ENG3047	Structural Mechanics 3	20	1 & 2
ENG3073	Geotechnical Engineering 3	20	1 & 2
ENG3037	Mechanics of Solids 3	10	1
ENG3076	Civil Design Projects 3	10	2
ENG3080	Environmental Process Engineering 3	10	2
ENG3082	Construction Management 3	10	2
ENG3085	Engineering Hydraulics 3	10	1
ENG3086	Transportation Engineering 3	10	1

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
ENG4050	Civil Design Project 4	20	1 & 2
ENG4025	Finite Element Analysis 4	10	1
ENG4070	Geotechnical Engineering 4	10	1
ENG4079	Industrial Aerodynamics 4	10	1
ENG4122	Structural Analysis 4	10	2
ENG4124	Advanced Steel & Concrete Design 4	10	1
ENG4152	Environmental Biotechnology 4	10	2
ENG4053	Digital Signal Processing 4	20	1
ENG4183	Transportation Engineering 4	10	1
ENG4192	Hydraulics & Hydrology 4	10	2
ENG4203	Appraisal of Existing Structures	10	2
ENG5293	Water and Environmental Design	10	2
ENG4202	Engineering Optimisation	10	2

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
ENG4025	Finite Element Analysis 4	10	1
ENG4070	Geotechnical Engineering 4	10	1
ENG4079 *	Industrial Aerodynamics 4	10	2
ENG4122	Structural Analysis 4	10	2
ENG4124	Advanced Steel and Concrete Design 4	10	1
ENG4192	Hydraulics & Hydrology 4	10	2
ENG4152	Environmental Biotechnology 4	10	2
ENG4183	Transportation Systems Engineering 4	10	1
ENG5293	Water Environment and Design	10	2
ENG4203	Appraisal of Existing Structures	10	2
ENG4202	Engineering Optimisation	10	2

Course Code	Course	Credits	Semester
ENG5273	Conceptual Design Project M or 5?	20	2
ENG5048 *†	Industrial Aerodynamics M	10	2

ENG5224	Advanced Concrete Performance M	10	2
ENG5227	Structures under Extreme Loads M	10	2
ENG5274	Advanced Structural Analysis and Dynamics 5	10	2
ENG5275	Reclamation of Contaminated Land	10	2
ENG5284	Advanced Soil Mechanics 5	10	2
ENG5293 †	Water & Environmental Design	10	2
ENG5250	Energy Conversion Systems M	10	2
ENG5332	Waste Heat and Power - to- X	10	2

† ENG5293 and ENG5048 cannot be both selected

* ENG4079 and ENG5048 cannot be both selected

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Electronic and Electrical Engineering

Option 1: Level 3

Course Code	Course	Credits	Semester
ENG3014	Communication Systems 3	10	1
ENG3015	Control 3	10	2
ENG3023	Electromagnetic Compatibility 3	10	2
ENG3024	Electronic Circuit Design 3	10	2
ENG3025	Electronic Devices 3	10	1
ENG3026	Electronic System Design 3	10	1
ENG3027	Engineering Career Skills 3	10	1 & 2
ENG3091	Advanced Programming & Software Engineering 3	10	2
ENG3036	Simulation of Engineering Systems 3	10	1
ENG3041	Power Engineering 3	10	2
ENG3043	Real Time Computer Systems 3	10	1
ENG3049	Team Design Project EE3	10	1 & 2

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
COMPSCI5093	Secured Software Engineering (M)	10	2
ENG4001	Acoustics and Audio Technology 4	20	2
ENG4036	Biosensors and Diagnostics 4 *[pre-requisite: ENG4181 Biophysics of Cells & Systems 4]*	10	2
ENG4042	Control 4	20	1
ENG4052	Digital Communication 4	20	2
ENG4053	Digital Signal Processing 4	20	1
ENG4099	Quantum Electronic Devices 4	20	2
ENG4100	Microwaves and Optical Transmission Systems 4	20	2
ENG4104	Power Systems 4	20	2
ENG4138	VLSI Design 4	20	1
ENG4173	Renewable and Sustainable Energy 4	10	1
ENG4181	Biophysics of Cells and Systems 4	10	1
ENG4184	Navigation Systems 4	10	1
ENG4185	Radar and Electro-Optic Systems 4	10	2
ENG4193	Ultrasound Technology and Applications 4	10	1
ENG4202	Engineering Optimisation	10	2
ENG4205	Introduction to Battery Technology	10	1
ENG4187	Power Electronics and Drives 4	10	1

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
COMPSCI5093	Secured Software Engineering (M)	10	2
ENG4001	Acoustics and Audio Technology 4	20	2
ENG4036	Biosensors and Diagnostics 4 *[pre-requisite: ENG4181 Biophysics of Cells & System 4]*	10	2
ENG4042 *	Control 4	20	1
ENG4052	Digital Communication 4	20	1

ENG4053	Digital Signal Processing 4	20	1
ENG4099 ‡	Quantum Electronic Devices 4	20	2
ENG4100	Microwaves and Optical Transmission Systems 4	20	2
ENG4104	Power Systems 4	20	2
ENG4138	VLSI Design 4	20	1
ENG4172	Team Project EE4	20	1&2
ENG4173 †	Renewable and Sustainable Energy 4	10	1
ENG4181	Biophysics of Cells & Systems 4	10	1
ENG4184	Navigation Systems 4	10	1
ENG4185	Radar and Electro-Optic Systems 4	10	2
ENG4187	Power Electronics and Drives 4	10	1
ENG4193	Ultrasound Technology and Applications 4	10	1
ENG4195 *	Control Systems Analysis and Design 4	10	1
ENG4202	Engineering Optimisation	10	2
ENG4205	Introduction to Battery Technology	10	1

* Both ENG4042 and ENG4195 cannot be selected

Course Code	Course	Credits	Semester
ENG5026	Design Special Topic 5	20	2
ENG5009	Advanced Control 5	10	2
ENG5048	Industrial Aerodynamics M	10	2
ENG5055	Micro and Nano Technology	20	2
ENG5056	Microwave and mm Wave Circuit Design	20	2
ENG5066	Optical Communications	20	2
ENG5220	Real Time Embedded Programming	20	2
ENG5250 †	Energy Conversion Systems M	10	2
ENG5261 ‡	Quantum Electronic Devices M	20	2
ENG5316	Advanced Ultrasonics	10	2

† ENG5250 Energy Conversion Systems M cannot be taken in Year 5 if ENG4173 Renewable & Sustainable Energy 4 has been taken in Year 4.

‡ ENG5261 Quantum Electronic Devices M cannot be taken in Year 5 if ENG4099 Quantum Electronic Devices 4 has been taken in Year 4

Mechanical Design Engineering

Option 1: Level 3

Course Code	Course	Credits	Semester
ENG3015	Control 3	10	2
ENG3017	Mechanical Design 3	20	1 & 2
ENG3030	Fluid Mechanics 3	10	2
ENG3032	Heat Transfer 3	10	2
ENG3034	Instrumentation and Data Systems 3	10	2
ENG3035	Design and Manufacture 3	10	2
ENG3036	Simulation of Engineering Systems 3	10	1
ENG3037	Mechanics of Solids 3	10	1
ENG3039	Dynamics 3	10	1
ENG3091	Advanced Programming & Software Eng 3	10	2
ENG3092	Mechanical Engineering Skills 3	10	1

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
MGT5068	Professional Practice 5	20	2
ENG4025	Finite Element Analysis 4	10	1
ENG4004	Materials Engineering 4	10	2
ENG4042 *	Control 4	20	1
ENG4088	Lasers and Electro-Optic Systems 4	20	1
ENG4094	Mechanics of Solids 4	20	1
ENG4098	Microelectronics in Consumer Products 4	10	1
ENG4137	Vibration 4	20	2
ENG4173	Renewable Energy 4	10	1
ENG4179	Thermal Engineering 4	10	1
ENG4195 *	Control Systems Analysis and Design 4	10	1
ENG4186	Mechanical Design 4	20	1 & 2
ENG4202	Engineering Optimisation	10	2

* ENG4042 and ENG4195 cannot be both selected

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
ENG4004	Materials Engineering 4	10	2
ENG4025	Finite Element Analysis 4	10	1
ENG4042 *	Control 4	20	1
ENG4088	Lasers and Electro-Optic Systems 4	20	1
ENG4094	Mechanics of Solids 4	20	1
ENG4098	Microelectronics in Consumer Products 4	10	1
ENG4137	Vibration 4	20	2
ENG4173	Renewable and Sustainable Energy 4	10	1
ENG4179	Thermal Engineering 4	10	1
ENG4186	Mechanical Design 4	20	1 & 2
ENG4195 *	Control Systems Analysis and Design 4	10	1
ENG4202	Engineering Optimisation	10	2

* ENG4042 and ENG4195 cannot be both selected

Course Code	Course	Credits	Semester
MGT5068	Professional Practice 5	20	2
ENG5009	Advanced Control 5	10	2
ENG5017	Autonomous Vehicle Guidance Systems M	10	2
ENG5227	Structures under Extreme Loads M	10	2
ENG5299	Dynamics 5	10	2
ENG5300	Materials Engineering 5	10	2
ENG5303	Advanced Thermal Engineering 5	10	2
ENG5316	Advanced Ultrasonics	10	2

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Mechanical Engineering

Option 1: Level 3

Course Code	Course	Credits	Semester
ENG3015	Control 3	10	2
ENG3030	Fluid Mechanics 3	10	2
ENG3032	Heat Transfer 3	10	2
ENG3034	Instrumentation and Data Systems 3	10	2
ENG3035	Design and Manufacture 3	10	2
ENG3036	Simulation of Engineering Systems 3	10	1
ENG3037	Mechanics of Solids 3	10	1
ENG3039	Dynamics 3	10	1
ENG3053	Thermodynamics of Energy Systems 3	10	1
ENG3017	Mechanical Design 3	20	1 & 2
ENG3091	Advanced Programming & Software Engineering 3	10	2
ENG3092	Mechanical Engineering Skills 3	10	1

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
MGT5068	Professional Practice 5	20	2
ENG4004	Materials Engineering 4	10	2
ENG4042	Control 4	20	1
ENG4079	Industrial Aerodynamics 4	10	2
ENG4088	Lasers and Electro-Optic Systems 4	20	1
ENG4094	Mechanics of Solids 4	20	1
ENG4098	Microelectronics in Consumer Products 4	10	1
ENG4137	Vibration 4	20	2
ENG4173	Renewable Energy 4	10	1
ENG4179	Thermal Engineering 4	10	1
ENG4186	Mechanical Design 4	20	1 & 2
ENG4193	Ultrasound Technology and Applications	10	1

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
ENG4004	Materials Engineering 4	10	2
ENG4037	Computational Fluid Dynamics 4	10	2
ENG4042	Control 4	20	1
ENG4079	Industrial Aerodynamics 4	10	2
ENG4088	Lasers and Electro-Optic Systems 4	20	1
ENG4094	Mechanics of Solids 4	20	1
ENG4098	Microelectronics in Consumer Products 4	10	1
ENG4104	Power Systems 4	20	2
ENG4137	Vibration 4	20	2
ENG4173	Renewable Energy 4	10	1
ENG4175	Autonomous Vehicle Guidance Systems 4	10	2
ENG4179	Thermal Engineering 4	10	1

ENG4186	Mechanical Design 4	20	1 & 2
ENG4187	Power Electronics and Drives 4	20	1
ENG4193	Ultrasound Technology and Applications 4	20	1
ENG4202	Engineering Optimisation	10	2

Course Code	Course	Credits	Semester
MGT5068	Professional Practice 5	20	2
ENG5009	Robust Control 5	10	2
ENG5017	Autonomous Vehicle Guidance Systems	10	2
ENG5048	Industrial Aerodynamics M	10	2
ENG5081	Spacecraft Systems 5	10	2
ENG5227	Structures under Extreme Loads M	10	2
ENG5299	Dynamics 5	10	2
ENG5300	Materials Engineering 5	10	2
ENG5303	Advanced Thermal Engineering 5	10	2
ENG5316	Advanced Ultrasonics	10	2

Mechanical Engineering with Aeronautics

Option 1: Level 3

Course Code	Course	Credits	Semester
ENG3015	Control 3	10	2
ENG3032	Heat Transfer 3	10	2
ENG3034	Instrument and Data Systems	10	2
ENG3035	Design and Manufacture 3	10	2
ENG3036	Simulation of Engineering Systems 3	10	1
ENG3037	Mechanics of Solids 3	10	1
ENG3039	Dynamics 3	10	1
ENG3042	Propulsion and Turbomachinery 3	10	1
ENG3059	Aircraft Performance 3	10	1
ENG3060	Flight Mechanics 3	10	2
ENG3015	Control 3	10	2

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
MGT5068	Professional Practice 5	20	2
ENG4004	Materials Engineering 4	10	2
ENG4013	Aerospace Design Project 4	10	2
ENG4025	Finite Element Analysis 4	10	1
ENG4037	Computational Fluid Dynamics 4	10	2
ENG4042	Control 4	20	1
ENG4074	High Speed Aerodynamics 4	10	2
ENG4079	Industrial Aerodynamics 4	10	2
ENG4088	Lasers and Electro-Optic Systems 4	20	1
ENG4094	Mechanics of Solids 4	20	1
ENG4102	Physics of Fluids 4	10	1
ENG4121	Space Flight Dynamics 4	10	1
ENG4137	Vibration 4	20	2
ENG4173	Renewable Energy 4	10	1
ENG4175	Autonomous Vehicle Guidance Systems 4	10	2
ENG4179	Thermal Engineering 4	10	1
ENG4193	Ultrasound Technology and Applications	10	1
ENG4194	Aerospace Propulsion 4	10	2
ENG4196	Rotorcraft Aeromechanics 4	10	2
ENG4202	Engineering Optimisation	10	2

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
ENG4025	Finite Element Analysis 4	10	1
ENG4037	Computational Fluid Dynamics 4	10	2
ENG4042	Control 4	20	1
ENG4074	High Speed Aerodynamics 4	10	2
ENG4079	Industrial Aerodynamics 4	10	2

ENG4088	Lasers and Electro-Optic Systems 4	20	1
ENG4094	Mechanics of Solids 4	20	1
ENG4102	Physics of Fluids 4	10	1
ENG4121	Space Flight Dynamics 4	10	1
ENG4137	Vibration 4	20	2
ENG4173	Renewable and Sustainable Energy 4	10	1
ENG4175	Autonomous Vehicle Guidance Systems 4	10	2
ENG4179	Thermal Engineering 4	10	1
ENG4193	Ultrasound Technology and Applications 4	10	1
ENG4194	Aerospace Propulsion 4	10	2
ENG4196	Rotorcraft Aeromechanics 4	10	2
ENG4202	Engineering Optimisation	10	2

Course Code	Course	Credits	Semester
MGT5068	Professional Practice 5	20	2
ENG5009	Advanced Control 5	10	2
ENG5017	Autonomous Vehicle Guidance Systems M	10	2
ENG5048	Industrial Aerodynamics M	10	2
ENG5081	Spacecraft Systems 2	10	2
ENG5227	Structures under Extreme Loads M	10	2
ENG5263	Aeroelastics & Aeroacoustics 5	10	2
ENG5265	Rotorcraft Aeromechanics M	10	2
ENG5278	Advanced Aerodynamics 5	10	2
ENG5299	Dynamics 5	10	2
ENG5300	Materials Engineering 5	10	2
ENG5303	Advanced Thermal Engineering 5	10	2
ENG5313	Aerospace Propulsion M	10	2
ENG5316	Advanced Ultrasonics	10	2

Mechatronics

Option 1: Level 3

Course Code	Course	Credits	Semester
ENG3015	Control 3	10	2
ENG3014	Communication Systems 3	10	1
ENG3023	Electromagnetic Compatibility 3	10	2
ENG3026	Electronic System Design 3	10	1
ENG3035	Design and Manufacture 3	10	2
ENG3036	Simulation of Engineering Systems 3	10	1
ENG3037	Mechanics of Solids 3	10	1
ENG3039	Dynamics 3	10	1
ENG3041	Power Engineering 3	10	2
ENG3043	Real Time Computer Systems 3	10	1
ENG3071	Mechatronic Team Project 3	10	1 & 2
ENG3091	Advanced Programming &Software Eng 3	10	2

Option 2: BEng Level 4

Course Code	Course	Credits	Semester
ENG4042	Control 4	20	1
ENG4053	Digital Signal Processing 4	20	1
ENG4175	Autonomous Vehicle Guidance Systems 4	10	2
ENG4202	Engineering Optimisation	10	2
ENG4205	Introduction to Battery Technology	10	1
MGT5068	Professional Practice 5	20	2

Option 3: MEng Levels 4 and 5

Course Code	Course	Credits	Semester
ENG4042	Control 4	20	1
ENG4053	Digital Signal Processing 4	20	1
ENG4153	Mechatronic Team Project 4	20	1 & 2
ENG4004	Materials Engineering 4	10	2
ENG4025	Finite Element Analysis 4	10	1
ENG4187	Power Electronics and Drives 4	20	1
ENG4088	Lasers and Electro-Optic Systems 4	20	1
ENG4094	Mechanics of Solids 4	20	1
ENG4104	Power Systems 4	20	2
ENG4137	Vibration 4	20	2
ENG4175	Autonomous Vehicle Guidance Systems 4	10	2
ENG4202	Engineering Optimisation	10	2
ENG4205	Introduction to Battery Technology	10	1
ENG4193	Ultrasounds Technology and Applications 4	10	1

Course Code	Course	Credits	Semester
ENG5009	Advanced Control 5	10	2
ENG5017	Autonomous Vehicle Guidance Systems M	10	2
ENG5031	Fault Detection, Isolation and Reconfiguration	10	2

ENG5299	Dynamics 5	10	2
ENG5332	Waste Heat and Power to X	10	2
MGT5068	Professional Practice 5	20	2