

MEng Electrical and Electronic Engineering

<p>This document provides a definitive record of the main features of the programme and the learning outcomes that a typical student may reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities provided. This programme specification is intended as a reference point for prospective students, current students, external examiners and academic and support staff involved in delivering the programme and enabling student development and achievement.</p>					
Programme Information					
Programme Title		Electrical & Electronic Engineering			
Award(s)		MEng			
Programme Code(s)		H604			
Awarding Institution		Imperial College London			
Teaching Institution		Imperial College London			
Faculty		Faculty of Engineering			
Department		Department of Electrical and Electronic Engineering			
Associateship		City and Guilds of London Institute (ACGI)			
Main Location of Study		South Kensington Campus			
Mode and Period of Study		4 academic years full-time			
Cohort Entry Points		Annually in October			
Relevant QAA Benchmark Statement(s) and/or other external reference points		Honours Degrees in Engineering			
Total Credits	MEng <i>*Total ECTS dependent on chosen Year 3 option module (Group Project or Industrial Placement).</i>	ECTS:	252/276*	CATS:	492/540*
FHEQ Level		Level 7			
EHEA Level		2 nd cycle			
External Accrator(s)		Institute of Engineering and Technology (IET) Accreditation received: 2014 Accreditation renewal: 2018			
Specification Details					
Student cohorts covered by specification		2017-18 entry			

Person responsible for the specification	Dr. K. Fobelets
Date of introduction of programme	October 2013
Date of programme specification/revision	April 2018
Programme Overview	
<p>The goal of this course is the preparation of high quality graduates who will innovate beyond the current practises, whether in the electronic/electrical industry, in information technology, in research, or in financial establishments. Our teaching and learning is supported by a variety of teaching methods including large group lecture sessions, small group exercise sessions as well as 3-to-1 tutorial sessions. In addition, laboratory sessions and group projects are carried out from year 1 onwards. Members of staff are experts in their field and bring their research and industrial expertise into the classrooms.</p> <p>The MEng (integrated masters) degree offers an opportunity for industry-led group projects or an industrial placement. It offers advanced specialised topics in the 4th and final year and gives the most direct route to a specialist professional engineering career or a career in research and development. The MEng course fulfills the minimum educational requirement to become a Chartered Engineer.</p> <p>Teaching on this programme is based on an integrated 4-year programme leading to the award of a MEng degree. The MEng course has been designed based upon a number of key principles:</p> <ul style="list-style-type: none"> • Competence in the fundamental principles of mathematics and electrical/electronic engineering: Students are expected to develop a firm grasp of the fundamental concepts and principles, and able to model complex systems analytically, to analyse and optimise these models. • Competence in computing: Students are expected to acquire a level of competence in both programming and in using the latest computing technologies. • Pro-active learning: Students are expected to learn how to learn by themselves and acquire the skill and discipline of lifelong learning. • Design Proficiency: Students are expected to develop their ability to incorporate concepts into design of new products or processes, to provide innovations. • Development of professional and transferrable skills: Students are expected to learn how to work in groups, develop their abilities to communicate scientific/engineering ideas orally or in written form, and to develop general problem-solving skills. • Industrial perspectives: Students participate in an industrial based project via a 6-month industrial placement or an industry-led group project at the end of their 3rd year. Students are encouraged to find industrial experience where possible. • Flexibility of provision: We aim to provide students with a wide variety of options in the last year of the course in order to allow them to specialise in specific areas in electrical/electronic engineering and in computing. 	
Learning Outcomes	
<p>Knowledge and Understanding</p> <ul style="list-style-type: none"> • Fundamental concepts and physical principles that underpin electrical and electronic engineering in the areas of circuits, systems, networks and algorithms. • Mathematical principles and techniques that underpin the analysis of engineering systems and circuits. • The application of the principles to engineering design and analysis. 	

- Software engineering and programming skills as appropriate to electrical and electronic engineering.
- Role of business processes in engineering, including the commercial, societal and legal framework within which industry operates.
- Moral and ethical issues including professional conduct and intellectual property.

Intellectual Skills

- Performance of the analysis of engineering systems and circuits in order to solve qualitative and quantitative problems;
- Synthesise solutions using established methodologies;
- Adapt and apply methodologies to the solution of unfamiliar problems;
- Derive methodologies for unfamiliar problems;
- Practical application of theory using computer software and models;
- Demonstrate the skills necessary to plan, conduct and report a programme of independent research.

Practical Skills

- Acquisition and interpretation of data and testing hypotheses;
- Interpretation of datasheets and industry standards;
- Construction and testing of circuits;
- Implementation of algorithms as software code;
- Use of commercial software tools to analyse, design and simulate engineering systems;
- Recognise risks and identify safe working practices;
- Preparation of technical reports.

Professional Skills Development

- Communication of scientific material and arguments in written and oral formats;
- Recognise professional and ethical issues in the use of technology and identify appropriate ethical, professional and legal practices;
- Recognise issues of leadership and responsibility;
- Adoption of appropriate roles in group activities;
- Ability to interact with professionals from other disciplines;
- Ability to make decisions in complex and unpredictable situations;
- Ability to plan work in terms of time-plans and deliverables;
- Independent learning ability required for continuing professional development.

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial College degree programme. The Graduate Attributes are available at: www.imperial.ac.uk/students/academic-support/graduate-attributes

Entry Requirements

Academic Requirement	Grade Requirement	Normally a minimum A*AA overall
	Subject Requirements	A* in Mathematics A in Physics (or a comparable qualification recognised by the College).
	Excluded Subjects	Relevant subjects for the remaining A-level include: Applied ICT, Biology, Chemistry,

		Computer Science, Computing, Design and Technology, Economics, Electronics, English Literature, Further Mathematics, Geography, History, ICT, Languages (Classical and Modern), Music, Music Technology, Statistics and Technology.
International Baccalaureate (IB)	Grade Requirement	Minimum 38 overall.
	Subject Requirements	6 in Mathematics at higher level 6 in Physics at higher level
GCSE Requirements		B in English (or a comparable qualification recognised by the College).
English Language Requirement		<u>Standard requirement</u> IELTS score of <u>6.5</u> overall (minimum 6.0 in all elements)
Admissions Tests		Candidates may be asked to undertake an admissions test set by the College in order to provide additional information for the Admissions Tutor in support of an application.
Interview		Yes
The programme's competency standards document can be found at: http://www3.imperial.ac.uk/electricalengineering/teaching/undergraduate/teaching		
Learning & Teaching Strategy		
Scheduled Learning & Teaching Methods		<ul style="list-style-type: none"> • Lectures • Problem solving classes • Tutorial sessions
E-learning & Blended Learning Methods		<ul style="list-style-type: none"> • Hardware laboratory • Software laboratory
Project Learning Methods		<ul style="list-style-type: none"> • Group projects • Individual projects
Placement Learning Methods		<ul style="list-style-type: none"> • Industrial placement
Assessment Strategy		
Assessment Methods		<ul style="list-style-type: none"> • Written examinations • Coursework software or hardware deliverables • Oral and poster presentations • Reports
Academic Feedback Policy		

The progress of first year students is evaluated via a Christmas and Easter test. Students receive feedback on these through their tutorials and study groups. Written feedback is made available on reports while in-situ comments give feedback on presentations.

Two feedback strategies are applied to coursework based modules in the 3rd year. One involves comments on the individual reports while the second approach involves feedback sessions in class that discuss the solutions.

Feedback on exams is made available via the on-line publication of the answers with annotations that highlight the strength and weakness of understanding of the cohort on particular aspects of the module covered in the exams.

Re-sit Policy

The departmental re-sit policy is available in the Awards of Honours document at:

<https://workspace.imperial.ac.uk/electricalengineering/Public/HonoursSchemes/EEE%20Scheme%20for%20Award%20of%20Honours%202015-16.pdf>

The College's Policy on Re-sits is available at: <http://www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/>

Mitigating Circumstances Policy

The department's policy on the registering of Mitigating Circumstances is available at:

<http://www3.imperial.ac.uk/electricalengineering/teaching/undergraduate/examinations/illnessug>

The College's Policy on Mitigating Circumstances is available at: <http://www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/>

Programme Structure

Year One	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	0	6	5	0	0
Elective Modules	0	0	0	0	0
Projects	0	1	1	1	0
Year Two	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	0	5	4	0	0
Elective Modules	0	0	2	0	0
Projects	0	1	1	1	0
Year Three	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	0	0	0	0	0

Elective Modules	0	4	4	0	0
Projects	0	0	0	1	1
Year Four	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	0	0	0	0	0
Elective Modules	0	4	4	0	0
Projects	0	1	1	1	0
Assessment Dates & Deadlines					
Year One					
Written Examinations		January, March and June			
Coursework Assessments		Continuous			
Project Deadlines		Continuous			
Practical Assessments		Continuous			
Year Two					
Written Examinations		June			
Coursework Assessments		Continuous			
Project Deadlines		Continuous			
Practical Assessments		Continuous			
Year Three					
Written Examinations		December			
Coursework Assessments		Continuous in term 2			
Project Deadlines		June/September			
Practical Assessments		N/A			
Year Four					
Written Examinations		May			
Coursework Assessments		Continuous			
Project Deadlines		January and June			
Practical Assessments		Continuous			

Assessment Structure

Rules of Progression

Year 1

In order to progress to Part II, students are normally required to achieve the following minimum marks:

- a) 40% in each of the examined modules.
- b) 40% in the aggregate of the practical work.

Year 2

In order to progress to Part III of MEng, students are normally required to achieve the following minimum marks:

- a) 40% in each of the examined modules (excl. Maths).
- b) 50% in mathematics.
- c) 50% in the exam aggregate.
- d) 40% in the aggregate of the practical work.
- e) No SQT (supplementary qualifying test).

Compensation: 1 module (excluding maths) with a mark in the range 30% to 40% can be compensated (considered as a pass), *if* the exam aggregate is > 45%

Year 3

In order to progress to Part IV of MEng, students are normally required to achieve the following minimum marks:

- a) 40% in the Part III exam and coursework aggregate. There is no pass mark for individual modules, only for the module aggregate.
- b) 40% in the Part III group project or industrial placement.

Year 4

To obtain an honours degree, students are normally required to achieve the following minimum marks:

- a) 40% in the Part IV exam and coursework aggregate. There is no pass mark for individual modules, only for the module aggregate.
- b) 40% in the Part IV individual project.

Marking Scheme

Final Assessment and Honours Classification

The marks from each Part are combined using the weightings defined as:

Weightings	Part I	Part II	Part III	Part IV	Total
MEng	11.1%	22.2%	33.3%	33.4%	100%

Classification:

First class honours: $A > 70\%$
Second class honours (upper division): $70 > B > 60\%$
Second class honours (lower division): $60 > C > 50\%$
Third class honours: $50 > D > 40\%$
Fail: $40 > E$

Year	% Year Weighting	Module	% Module Weighting
Year One	11.1%	Analysis of Circuits	7.5%
		Digital Electronics 1	7.5%
		Semiconductor Devices	7.5%
		Analogue Electronics 1	7.5%
		Energy Conversion	7.5%
		Introduction to Signals and Communications	7.5%
		Software Engineering 1: Introduction to Computing	7.5%
		Mathematics I (E-stream and I-stream)	15%
		Engineering Design and Practice	7.5%
		EEE 1st Year Electronics Lab	15%
		EEE1 Project	10%
Year Two	22.2%	Digital Electronics II	6%
		Analogue Electronics II	6%
		Power Engineering	6%
		Communication Systems	6%
		Signals and Linear Systems	6%
		Control Engineering	6%
		Mathematics II	14%
		Algorithms and Data Structures	9%
		Computer Architecture I	9%
		EEE2 Electronics Lab	16%
		EEE2 Project	8%
2 x modules from elective group (A)	4% each		

Year	% Year Weighting	Module	% Module Weighting
Year Three	33.3%	4 x modules from elective group (B)	10%
		3 x modules from elective group (C)	10%
		1 x module from elective group (D)	10%
		1 x module from elective group (E)	20%
Year Four	33.4%	E4 MEng Project	35%
		6 x modules from elective group (F)	8.1%
		1 x module from elective group (F/D/G)	8.1%
		1 x module from elective group (F/D/G)* *Candidates may choose one additional module from elective group (F/D/G). <i>The % module weighting for the other seven modules from elective group (C) would be weighted at 8% each.</i>	8.1%

Indicative Module List												
Code	Title	Core/ Elective	Year	L&T Hours	Ind. Study Hours	Place- ment Hours	Total Hours	% Written Exam	% Course- work	% Practical	FHEQ Level	ECTS
EE1-01	Analysis of Circuits	CORE	1	35	90	0	125	100%	0%	0%	4	5
EE1-02	Digital Electronics 1	CORE	1	35	90	0	125	100%	0%	0%	4	5
EE1-03	Semiconductor Devices	CORE	1	35	90	0	125	100%	0%	0%	4	5
EE1-04	Analogue Electronics 1	CORE	1	35	90	0	125	100%	0%	0%	4	5
EE1-05	Energy Conversion	CORE	1	35	90	0	125	100%	0%	0%	4	5
EE1-06	Introduction to Signals and Communications	CORE	1	35	90	0	125	100%	0%	0%	4	5
EE1-07	Software Engineering 1: Introduction to Computing	CORE	1	20	105	0	125	0%	100%	0%	4	5
EE1-10	Mathematics I (E-stream and I-stream)	CORE	1	90	160	0	250	100%	0%	0%	4	10
EE1-13	Engineering Design and Practice	CORE	1	20	105	0	125	0%	50%	50%	4	5
EE1-LABE	EEE 1st Year Electronics Lab	CORE	1	100	25	0	125	0%	50%	50%	4	5
EE1-PRJ	EEE1 Project	CORE	1	15	110	0	125	100%	0%	0%	4	5
EE2-01	Digital Electronics II	CORE	2	24	76	0	100	100%	0%	0%	5	4
EE2-02	Analogue Electronics II	CORE	2	24	76	0	100	100%	0%	0%	5	4
EE2-03	Power Engineering	CORE	2	24	76	0	100	100%	0%	0%	5	4
EE2-04	Communication Systems	CORE	2	24	76	0	100	100%	0%	0%	5	4
EE2-05	Signals and Linear Systems	CORE	2	24	76	0	100	100%	0%	0%	5	4
EE2-06	Control Engineering	CORE	2	24	76	0	100	100%	0%	0%	5	4
EE2-08	Mathematics II	CORE	2	60	140	0	200	100%	0%	0%	5	8
EE2-10A	Devices	ELECTIVE (A)	2	17	58	0	75	100%	0%	0%	5	3
EE2-10B	Fields	ELECTIVE (A)	2	17	58	0	75	100%	0%	0%	5	3
EE2-10C	Algorithms and Complexity	ELECTIVE (A)	2	17	58	0	75	100%	0%	0%	5	3

Indicative Module List												
Code	Title	Core/ Elective	Year	L&T Hours	Ind. Study Hours	Place- ment Hours	Total Hours	% Written Exam	% Course- work	% Practical	FHEQ Level	ECTS
EE2-18	Algorithms and Data Structures	CORE	2	35	90	0	75	100%	0%	0%	5	5
EE2-19	Computer Architecture I	CORE	2	35	90	0	75	100%	0%	0%	5	5
EE2-LABE	EEE2 Electronics Lab	CORE	2	140	60	0	200	0%	50%	50%	5	8
EE2-PRJ	EEE2 Project	CORE	2	10	90	0	100	0%	50%	50%	5	4
EE3-01	Analogue Integrated Circuits and Systems	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-03	Communication Systems	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-07	Digital Signal Processing	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-09	Control Engineering	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-10	Mathematics for Signals and Systems	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-12	Optoelectronics	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-13	Electrical Energy Systems	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-16	Artificial Intelligence	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-17	Communication Networks	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-18	Microwave Technology	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-21	Biomedical Electronics	ELECTIVE (B)	3	20	130	0	150	100%	0%	0%	6	6
EE3-02	Instrumentation	ELECTIVE	3	20	130	0	150	0%	100%	0%	6	6

Indicative Module List												
Code	Title	Core/ Elective	Year	L&T Hours	Ind. Study Hours	Place- ment Hours	Total Hours	% Written Exam	% Course- work	% Practical	FHEQ Level	ECTS
		(C)										
EE3-05	Digital System Design	ELECTIVE (C)	3	20	130	0	150	0%	100%	0%	6	6
EE3-08	Advanced Signal Processing	ELECTIVE (C)	3	20	130	0	150	0%	100%	0%	6	6
EE3-11	Advanced Electronic Devices	ELECTIVE (C)	3	20	130	0	150	0%	100%	0%	6	6
EE3-14	Power Electronics	ELECTIVE (C)	3	20	130	0	150	0%	100%	0%	6	6
EE3-19	Real-time Digital Signal Processing	ELECTIVE (C)	3	20	130	0	150	0%	100%	0%	6	6
EE3-22	High Level Programming	ELECTIVE (C)	3	20	130	0	150	0%	100%	0%	6	6
EE3-23	Introduction to Machine Learning	ELECTIVE (C)	3	20	130	0	150	0%	100%	0%	6	6
EE3-24	Embedded Systems	ELECTIVE (C)	3	20	130	0	150	0%	100%	0%	6	6
N/A	Business for Professional Engineers & Scientists	ELECTIVE (D)	4	Various			150	Various				6
N/A	Horizons	ELECTIVE (D)	4	Various			150	Various				6
EE3-TPRJ	E3 Group Project	ELECTIVE (E)	4	50	400	0	450	0%	80%	20%	6	18
EE3-IP	Third Year Industrial Placement	ELECTIVE (E)	3	20	0	1030	1050	0%	80%	20%	6	42
EE4-01	Advanced Communication Theory	ELECTIVE (F)	4	25	100	0	125	55%	45%	0%	7	6

Indicative Module List												
Code	Title	Core/ Elective	Year	L&T Hours	Ind. Study Hours	Place- ment Hours	Total Hours	% Written Exam	% Course- work	% Practical	FHEQ Level	ECTS
EE4-05	Traffic Theory & Queuing Systems	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-06	Optical Communication	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-07	Coding Theory	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-08	Digital Image Processing	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-10	Probability and Stochastic Processes	ELECTIVE (F)	4	25	100	0	125	85%	15%	0%	7	6
EE4-12	Digital Signal Processing and Digital Filters	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-13	Adaptive Signal Processing and Machine Intelligence	ELECTIVE (F)	4	25	100	0	125	0%	100%	0%	7	6
EE4-14	Speech Processing	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-16	Analogue Signal Processing	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-17	High Performance Analogue Electronics	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-18	Radio Frequency Electronics	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-20	Full-Custom Integrated Circuit Design	ELECTIVE (F)	4	25	100	0	125	0%	100%	0%	7	6
EE4-23	Stability and Control of Non-linear Systems	ELECTIVE (F)	4	25	100	0	125	75%	25%	0%	7	6
EE4-24	Discrete-time Systems and Computer	ELECTIVE	4	25	100	0	125	100%	0%	0%	7	6

Indicative Module List												
Code	Title	Core/ Elective	Year	L&T Hours	Ind. Study Hours	Place- ment Hours	Total Hours	% Written Exam	% Course- work	% Practical	FHEQ Level	ECTS
	Control	(F)										
EE4-25	Design of Linear Multivariable Control Systems	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-26	Estimation & Fault Detection	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-27	Systems Identification	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-29	Optimisation	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-40	Information Theory	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-45	Wavelets and Applications	ELECTIVE (F)	4	25	100	0	125	75%	25%	0%	7	6
EE4-46	Distributed Computation and Networks: A Performance Perspective	ELECTIVE (F)	4	25	100	0	125	0%	100%	0%	7	6
EE4-47	Modelling and Control of Multi-body Mechanical Systems	ELECTIVE (F)	4	25	100	0	125	75%	25%	0%	7	6
EE4-48	Power System Control, Measurement and Protection	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-50	Sustainable Electrical Systems	ELECTIVE (F)	4	25	100	0	125	80%	20%	0%	7	6
EE4-51	Power System Economics	ELECTIVE (F)	4	25	100	0	125	80%	20%	0%	7	6
EE4-53	High Voltage Technology and HVDC Transmission	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-54	Predictive Control	ELECTIVE (F)	4	25	100	0	125	75%	25%	0%	7	6

Indicative Module List												
Code	Title	Core/ Elective	Year	L&T Hours	Ind. Study Hours	Place- ment Hours	Total Hours	% Written Exam	% Course- work	% Practical	FHEQ Level	ECTS
EE4-55	MEMS and Nanotechnology	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-60	Human-Centered Robotic	ELECTIVE (F)	4	25	100	0	125	0%	100%	0%	7	6
EE4-62	Machine Learning for Computer Vision	ELECTIVE (F)	4	25	100	0	125	0%	100%	0%	7	6
EE4-63	High Performance Computing for Engineers	ELECTIVE (F)	4	25	100	0	125	0%	100%	0%	7	6
EE4-66	Topics in Large Dimensional Data Processing	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-67	Mobile Healthcare and Machine Learning	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-68	Pattern Recognition	ELECTIVE (F)	4	25	100	0	125	100%	0%	0%	7	6
EE4-TPRJ	E4 Individual Project	CORE	4	80	520	0	600	0	80	20	7	24
BE9-MHNCL	Human Neuromechanical Control and Learning	ELECTIVE (F)	4	30	107.5	0	137.5	100%	0%	0%	7	5.5
ME3-hDNVC-2	Design-led Innovation and New Venture Creation	ELECTIVE (F)	4	31	119	0	150	0%	70%	30%	6	6
CO422	Computational Finance	ELECTIVE (F)	4	27	85.5	0	112.5	85%	15%	0%	7	4.5
N/A	Business for Professional Engineers & Scientists	ELECTIVE (F)	4	Various			150	Various				6
N/A	Horizons	ELECTIVE (F)	4	Various			150	Various				6

Supporting Information

The Programme Handbook is available at:

<http://www3.imperial.ac.uk/electricalengineering/teaching/undergraduate>

The Module Handbook is available at:

<http://www3.imperial.ac.uk/electricalengineering/teaching/undergraduate>

The College's entry requirements for postgraduate programmes can be found at:

<http://www.imperial.ac.uk/study/ug/apply/requirements>

The College's Quality & Enhancement Framework is available at:

www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance

The College's Academic and Examination Regulations can be found at:

<https://www.imperial.ac.uk/about/governance/academic-governance/regulations>

Imperial College is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. In 2007 a Supplemental Charter and Statutes was granted by HM Queen Elizabeth II. This Supplemental Charter, which came into force on the date of the College's Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine".

<http://www.imperial.ac.uk/admin-services/secretariat/college-governance/charters-statutes-ordinances-and-regulations>

Imperial College London is regulated by the Higher Education Funding Council for England (HEFCE)

<http://www.hefce.ac.uk/reg/register/>