Template C4

Programme Specification

Title of Course: *BEng (Hons) Electronic and Communications Engineering top-up*

Date first produced	01/01/2013
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Version number	3
Faculty	Faculty of Engineering, Computing and the Environment
Cross-disciplinary	
School	School of Engineering
Department	Department of Electrical, Electronic and Robotic Engineering
Delivery Institution	ESOFT

This Programme Specification is designed for prospective students, current students, academic staff and employers. It provides a concise summary of the main features of the programme and the intended learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if they take full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes and content of each modules can be found in the course VLE site and in individual Module Descriptors.

SECTION 1: GENERAL INFORMATION

Award(s) and Title(s):	BEng (Hons) Electronic and Communications Engineering top-up
Exit Award(s) and Title(s):	BEng Electronic and Communications Engineering
Course Code *For each pathway and mode of delivery*	
UCAS code *For each pathway*	H400 (full-time, part-time) H401 (sandwich)

Awarding Institution:	Kingston University
Teaching Institution:	ESOFT
Location:	ESOFT Moratuwa, Sri Lanka
Language of Delivery:	English
Delivery mode:	Primarily campus based (up to 20% of scheduled L&T hours delivered online)
Learning mode(s):	Full-time
Minimum period of registration:	Full-time - 1
Maximum period of registration:	Full-time - 3
Entry requirements	The minimum entry qualifications for the programme are from BTEC HND Levels: a pass in the relevant HNDto include a pass in the nineteen units listed in Table below (or their equivalent) and achievement of an overall score of 300 credit points of which150 must be at Level 5.

Pearson BTEC HND in Electrical and Electronic Engineering

Subject Details	QCF Level	Credit Value
Unit 1: Engineering Design	4	15
Unit 2: Engineering Maths	4	15
Unit 3: Engineering Science	4	15
Unit 4: Managing a Professional Engineering Project	4	15
Unit 19: Electrical and Electronic Principles	4	15
Unit 20: Digital Principles	4	15
Unit 21: Electrical Machines	4	15
Unit 35: Professional Engineering Management	5	15
Unit 15: Automation, Robotics and PLCs	4	15

	Unit 39: Further Mathematics — 5 — 15 Unit 22: Electronic Circuits and Devices — 4 — 15 Unit 118: Telecommunication Principles — 4 — 15 Unit 47: Analogue Electronic Systems — 5 — 15 Unit 46: Embedded Systems — 5 — 15 Unit 54: Further Control Systems Engineering — 5 — 15 Unit 52: Further Electrical, Electronic and Principles — 5 — 15 Unit 44: Industrial Power, Electronics and Storage — 5 — 15 Unit 34: Research Project — 5 — 30 Unit 45: Industrial Systems — 5 — 15 *QCF Level 5 units* Applications with similar or equivalent qualifications will be considered on a case-by-case basis (including both HND from other providers, as well as mature applicants with industrial experience) **English Language Requirements:** IELTS–minimum 6.0 overall, with no element below 5.5; Kingston University have also approved the following mapping as equivalent alternatives to IELTS requirements; 1. GCE O Level English Language: Credit, Distinction or Very good pass 2. ESOFT English for Academic Purposes modules in reading, writing, listening and speaking: results which equate to our normal entry conditions in the following ways (*NB: The overall grade to be an average of the four skills module results.) IELTS ESOFT 6.5 58+ 6.0 50-57
Regulated by	The University and its courses are regulated by the Office for Students
Programme Accredited by:	Non Accredited
Approved Variants:	None

Is this Higher or Degree Apprenticeship course?	No

SECTION 2: THE COURSE

A. Aims of the Course

The programme aims to provide opportunities for students to undertake a broad-based education in electronic and communication engineering, and to acquire appropriate knowledge and understanding, of engineering skills and key skills, to become a professional Electrical, Electronic and Communication Engineer. It is also aimed for enabling graduates to follow careers in other professional disciplines where clear, logical, numerate skills in combination with the ability to solve problems, communicate solutions and work in teams are valued.

More specific aims of the programme are:

- To produce graduates with the required breadth and depth of theoretical and practical knowledge of established technologies and methods in electronic and communication Engineering;

- To enable graduates to develop analytical and problem-solving skills and to evaluate evidence and assumptions to reach sound judgements and communicate these effectively;

- To prepare graduates with a creative approach to the solution of electronic and communication engineering challenges and the requisite technical skills to realise these solutions with responsibility for project management;

- To equip graduates with the research skills required for postgraduate study and employability skills required for work in the engineering fields;

- To furnish graduates with a firm grasp of Engineering Design, Sustainability and 'Risk & Health and Safety' principles.

- To provide graduates skills to recognise the need to continually develop themselves in order to exercise their Professional judgement.

B. Programme Learning Outcomes

The programme learning outcomes are the high-level learning outcomes that will have been achieved by all students receiving this award. They have been aligned to the levels set out in 'Sector Recognised Standards in England' (OFS 2022).

Programme Learning Outcomes					
	Knowledge and Understanding On completion of the course students will be able to:		**Intellectual Skills** On completion of the course students will be able to		**Subject Practical Skills** On completion of the course students will be able to
A1	Demonstrate familiarity with theories of applied engineering sciences appropriate for electronic and communication engineering	B1	Define and analyse different design problems	C1	Understand issues in preparing dataset for use in applied analytical mode and to design and plan communication system for problem solving.
A2	Demonstrate knowledge and understanding of the scientific principles of electronic and communication system to manage projects in multidisciplinary environment.	B2	Demonstrate the ability to compare different case studies to resolve problems that occur in the field.	C2	Conduct research and collect data from different resources
A3	Acquire knowledge and understanding of different components and circuits used within electronic and communication engineering industries.	B3	Use theoretical analysis, modelling and simulation to formulate and to solve problems in electronic and communication engineering.	C3	Design electronic & communication related projects within proper technical, safety, and ethical frameworks
A4	Demonstrate an understanding and appreciation of the social, environmental, ethical, and economic considerations, as well as human factors, affecting the utilization of electronic and communication related equipment and the impact of introducing new technologies	B4	Manage projects, people, resources and time taking account of legal and statutory requirements, risk, safety, quality and reliability	C4	Use appropriate industry-standard computer software in the solution of practical problems

	especially in the field of communication and IT				
A5	Relate their studies to identify the different energy types, appropriate environmental control techniques, and different technical installations affecting electronic and communication related systems.	B5	Drive different alternative solutions and take decisions about system implementations taking into consideration: balanced costs, benefits, technology applicability, safety, quality, reliability, site constraints, and environmental impact.	C5	Identify a wide variety of learning by adopting the basic principles of drawing.
A6	Identify different electronic and communication system structures and execution, design methods, and techniques			C6	Demonstrate project administration and management skills

C. Future Skills Graduate Attributes

In addition to the programme learning outcomes, the programme of study defined in this programme specification will engage students in developing their Future Skills Graduate Attributes:

1. Creative Problem Solving
2. Digital Competency
3. Enterprise
4. Questioning Mindset
5. Adaptability
6. Empathy
7. Collaboration
8. Resilience
9. Self-Awareness

D. Outline Programme Structure

The module structure can be found below:

BEng (Hons) Electronic and Communications Engineering top-up

Level 6							
BEng (Hons) Electronic and Communications Engineering top-up							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Individual Project	AE6016	30	6	Year Long		1	1
Instrumentation, Control and Group Project	EE6012	30	6	Year Long		1	1
Optical Fibre Communications and IoT	EE6015	30	6	Year Long		1	1
Optional Modules							
Electrical Systems Design and Installation	EE6011	30	6	Year Long		1	
Renewable Energy Systems and Energy Management	EE6013	30	6	Year Long		1	

Exit Awards at Level 6

Students exiting the programme without completing the full 120 credits but have successfully completed 60 credits at level 6 or above are eligible for the award of an Ordinary Degree.

E. Teaching, Learning and Assessment

This course uses a range of teaching and assessment methods which have been designed to support students' learning and achievement of the learning outcomes. The course has been developed with reference to the Kingston University Academic Framework which sets-out core principles relating to Course and Credit Structure (including Module delivery Structure and Pattern, and Learning Hours and Learning Formats); Curriculum Design (inclusion Learning Design Principles and Inclusive Curriculum); and Future Skills.

Teaching and Learning on the course consist of Scheduled Learning and Teaching and Guided Independent Study (self-managed time). Scheduled Learning and Teaching includes the following, and the format for each module is set out in the module specification:

- Laboratory Sessions
- Lectures
- Seminars
- Tutorials
- Workshops
- Placements

Guidance for students on the use of independent study time is communicated through the 'Succeed in your module' section on the Canvas Virtual Learning Environment and through other communications during the course.

In addition to the core Scheduled Learning and Teaching activities for the course, the University may offer students additional optional opportunities for learning. Examples of these include Study abroad and Work-based learning.

The course will provide students with the opportunity to develop their knowledge and skills relating to at least two United Nations Sustainable Development Goals (UN SDGs). We are committed to empowering students with the knowledge, skills and opportunities to understand and address the UN SDGs: each course is thus also required to prepare students for at least two of the SDGs (not including Quality Education, which all courses must deliver).

F. Support for Students and their Learning

Students are supported through a range of services that provide academic and wider support. These include:

- A Module Leader for each module
- A Course Leader to help students understand the course structure
- Personal Tutors to provide academic and personal support
- Technical support to advise students on IT and the use of software
- Student Voice Committee – to ensure the views of students are heard
- Canvas – Kingston University's Virtual Learning Environment
- Student support facilities that can provide advice on issues such as finance, regulations, legal matters, accommodation, international student support
- Disabled student support
- The Kingston Students' Union
- Student Development and Graduate Success

G. Ensuring and Enhancing the Quality of the Course

The University has policies and procedures for evaluating and improving the quality and standards of its provision. These include:

- Continuous Monitoring of courses through the Kingston Course Enhancement Programme (KCEP)
- Student evaluation including Module Evaluation Questionnaires (MEQs), the National Student Survey (NSS)
- Internal and external moderation of graded assignments

H. External Reference Points

External reference points which have informed the design of the course:

- Engineeringsubjectbenchmark:
  https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-engineering.pdf?sfvrsn=1f2c881_4

  UK Quality Code for Higher Education
  https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf

  KU SchoolWebsite:
  https://www.kingston.ac.uk/faculties/science-engineering-and-computing/about/schools/engineering/

  ECET Website: www.esoft.lk/engineering

I. Development of Course Learning Outcomes in Modules

This table maps where programme learning outcomes are **summatively** assessed across the **core** modules for this course. It provides an aid to academic staff in understanding how individual modules contribute to the course aims, a means to

help students monitor their own learning, personal and professional development as the course progresses and a checklist for quality assurance purposes.

Module Code		Level 6				
		EE6015	AE6016	EE6012	EE6013	EE6011
Knowledge & Understanding	A1					
	A2			S		
	A3		S			
	A4	S				
	A5					
	A6					
Intellectual Skills	B1	S				
	B2		S			
	B3					
	B4					
	B5					
Practical Skills	C1					
	C2					
	C3					
	C4					
	C5					
	C6					

Students will be provided with formative assessment opportunities throughout the course to practise and develop their proficiency in the range of assessment methods utilised.

Additional Information