Programme Specification

MSc Wireless Communications (2017-18)

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

Awarding Institution	University of Southampton
Teaching Institution	Electronics and Computer Science (ECS), Faculty of Physical Science and Engineering University of Southampton
Mode of Study	Full Time
Duration in years	1 Year
Accreditation details	Currently Partially Accredited by the IET
Final award	Master of Science (MSc)
Name of award	MSc Wireless Communications
Interim Exit awards	Postgraduate Diploma Postgraduate Certificate
FHEQ level of final award	7
UCAS code	N/A
QAA Subject Benchmark or other external reference	The Framework for Higher Education Qualifications (FHEQ), and the UK Standard for Professional Engineering Competence (UK-SPEC).
Programme Coordinator	Prof. Lie-Liang Yang
Date specification was written	05/06/2015
Date Specification last updated	07/12/2017

Programme Overview

Brief outline of the programme

The programme of MSc Wireless Communications has been designed to equip students both the systematic knowledge and the essential training towards engineering design and independent research in the field of wireless communications. It has been structured by providing a gradually increasing grade of challenge for all abilities, while also allowing the most talented students to conduct cutting edge research. Following a number of compulsory modules to ensure that you are exposed to the key topics of all the areas in wireless communications, the programme endeavours to maximise your degrees of freedom for learning by allowing you to tailor the structure to suit your own interests.

Having successfully completed this programme you will be able to demonstrate knowledge and understanding of the scientific and technological principles of wireless communications, employ skills to analyse the techniques for wireless communications and to evaluate and compare the performance of various wireless communication system, be capable of exploiting knowledge for design and carrying our in-depth research, and be able to acquire new knowledge through critical reading of scientific and technical books and research papers.

Please note: As a research-led University, we undertake a continuous review of our programmes to ensure quality enhancement and to manage our resources. As a result, this programme may be revised during a student's period of registration, however, any revision will be balanced against the requirement that the student should receive the educational service expected. Please read our **Disclaimer** to see why, when and how changes may be made to a student's programme.

Programmes and major changes to programmes are approved through the University's programme validation process which is described in the University's Quality handbook.

Learning and teaching

While some modules in this programme are primarily taught using lectures, some other courses are taught using a combination of lectures, small group teaching, directed reading and assignments. Furthermore, some courses are entirely coursework based. Following the taught part of the course, you will undertake an individual project.

Throughout the programme, there is a heavy emphasis on private study and practice, with the support by tutorials, laboratories, and supervision of individual and group projects.

Assessment

The programme uses both formative and summative assessments. Depending on the specific structures of the individual modules, the assessment methods may include written examinations, coursework and coursework reports, progress reports, oral presentation, and dissertation.

Educational Aims of the Programme

The School of Electronics and Computer Science has a leading international reputation for its research. Each MSc programme offers a postgraduate education in one of the research specialisations of the School.

The programme of MSc Wireless Communications aims to:

a) Provide you with advanced knowledge in wireless communications;
b) Develop your research skills applicable to a career in manufacturing, development or research;
c) Stimulate your interest in the subject using a variety of learning environments.

Programme Learning Outcomes

The programme provides you with the opportunities to develop and demonstrate knowledge and understanding, intellectual and transferable skills as listed below. These outcomes have been developed with reference to the QAA's Subject Benchmark Statement for electronics, as well as the National Qualifications Framework, and the IET accreditation. The way in which these learning outcomes are derived from individual modules is mapped out in Appendix 1.

Knowledge and Understanding

Having successfully completed this programme you will be able to:

a) Demonstrate knowledge and understanding of the scientific and technological principles of wireless communications;
b) Demonstrate an ability to analyse the techniques for wireless communications and to evaluate and compare the performance of wireless communication systems;
c) Demonstrate knowledge and understanding of the design of wireless communication systems;
d) Demonstrate the ability to acquire new knowledge and to understand through the critical reading of scientific and technical books and research papers.

Teaching and Learning Methods

The teaching and learning of this programme includes one module from the third year of the MEng in Electronics, shown as level 6 in Appendix 1. The remaining modules are shared with the fourth year of the MEng in Electronics or are unique to the MSc programme and are designated as level 7. Level 6 courses are primarily taught using lectures. Level 7 courses are taught using a combination of lectures, small group teaching, directed reading and assignments. Some courses are entirely coursework based. At the end of the taught part of the course, you will undertake an individual project. Throughout the programme, there is a heavy emphasis on private study and practice, with the support by tutorials, laboratories, and supervision of individual and group projects.

Assessment methods

A range of assessment strategies is used throughout the programme to allow you to demonstrate the intended outcomes and thereby assess your knowledge and understanding. Your knowledge and understanding of each individual subject is assessed through a combination of written examinations and coursework. The proportion of examinations to coursework varies between modules. Depending on your choice of modules, about 50% of your marks will be derived from coursework. Your final individual MSc project will be assessed by dissertation. Typically, Outcomes (a) and (b) are primarily taught and assessed using level 6 lectures and examinations, while (c) and (d) are taught through level 7 courses and the individual project, and assessed by coursework and the dissertation.

Subject Specific Intellectual and Research Skills

Having successfully completed this programme you will, typically, be able to:

a) Specify and design electronic wireless-devices;
b) Model and simulate the behaviour of wireless communication channels and parts of wireless-devices at the appropriate level of detail;
c) Verify a system design by constructing and applying appropriate tests;
d) Critically analyse and compare the performance of various technical options for wireless communications;
e) Find, read, understand and explain scientific publications;
f) Undertake research into problems in wireless communications.

Teaching and Learning Methods

Design skills are developed through coursework, the group design projects and individual research projects. Modelling, simulation and verification are taught in various modules and applied in coursework and design projects. Critical analysis and comparison are taught in various modules and practiced by the trainings in coursework and individual research projects. Similarly, the ability to assimilate technical and scientific knowledge is developed through assignments and the individual project.

Assessment methods

Design skills are assessed in examination questions and in coursework. Modelling, simulation, verification as well as critical analysis and comparison form a significant aspect of the coursework in the design projects and are assessed through the delivery of coursework reports, oral presentation and dissertation. The dissertation on the individual research project will normally include a significant literature survey and this is one of the criteria for assessment of the dissertation.

Outcomes (a) to (f) are taught through level 7 courses and the individual project are assessed by the courseworks and dissertation.

Transferable and Generic Skills

As an existing engineering graduate, you will already be expected to have a general proficiency with IT, to be numerate and to be proficient in English. Your choice of modules will determine how and where these general skills are further developed, but typically, having successfully completed this programme, you are expected to be able to:

a) Use conventional and electronic indexing and search methods to find technical information;
b) Present technical information in written and verbal forms;
c) Work as a member of a design team, managing both the overall task and your contribution to that task;
d) Work independently on a significant research project;
e) Reflect and think critically as a component of practice, independent learning and professional development;

f) Explain how established techniques of research and enquiry are used to create and interpret subject knowledge;
g) Plan and enjoy lifelong self-learning as an effective personal development strategy for the foundation of on-going professional development.

Teaching and Learning Methods

A number of modules have significant coursework elements. This can range from design work through to presentation resulting from directed reading and practices. The group design projects are intended to develop team working, project and time management skills. The individual project includes independent research, project management and report writing. The reports for coursework assignments and the dissertations for individual research projects include the critical analysis of techniques as well as the discussion for practical applications of techniques.

Assessment methods

Coursework is generally assessed through written reports. The group design projects are assessed continuously through logbooks and at the end by delivery of a documented design. The individual project is assessed by a dissertation of up to 15,000 words.

Outcomes (a) to (g) are taught through practical work in level 7 courses and the individual project are assessed by coursework and the dissertation.

Subject Specific Practical Skills (optional)

As part of this programme, you will:

a) analyse analytical equations and use simulation software to check your models;
b) use CAD software to design devices and system components;
c) design experiments to evaluate designs and models;
d) write software programmes to assist and demonstrate your understanding of design concept;
e) provide alternative methods for solving problems and identify advantages and disadvantages of the alternative methods.

Teaching and Learning Methods

These skills are developed through coursework and project work.

Assessment methods

Machine-readable models and software will form part of the deliverable of a coursework assignment or a design project. The correct execution of these models and software will be part of the overall assessment of the assignment or project.
Outcomes (a) to (e) are taught through practical work in level 7 courses and the individual project and assessed by coursework and the dissertation.

Programme Structure

Typical course content

You must choose from the modules described in Appendix 1. Each successfully completed module is equivalent to 7.5 European Credit Transfer Scheme points (ECTS). You will be expected to have completed a total equivalent to 60 ECTS. The dissertation is equivalent to a further 30 ECTS. The programme includes one 7.5 ECTS Level 6 course and the others are 7.5 ECST Level 7 courses.

The following is the normal pattern of study for a full-time student, completing the programme within 12 calendar months.

Semester 1: Four compulsory modules specified for Semester 1.

Semester 2: Two compulsory modules and two optional modules chosen from the five modules specified for Semester 2;

Summer/Semester 3: Following the successful completion of the taught component of the programme, you will undertake a research project lasting 3 to 4 months, which is assessed by a dissertation of about 15,000 words.

Examinations are held at the end of Semester 1 (January) and at the end of Semester 2 (May/June). Students who have successfully completed 30 or 60 ECTS worth of taught material may exit with a Postgraduate Certificate or Postgraduate Diploma, respectively.

It should be noted that it may not be possible to run some optional modules if the number of students registered on the module is very small. It should also be noted that optional module choice can be restricted by the University Timetable, which varies from year to year: some optional modules may clash with other optional or compulsory modules. Please be aware that many modules are shared between different cohorts; the class size depends on cohort size, which varies from year to year.

The diagram overleaf shows the overall structure and exit points.

Semester 1 October to January	Exams End of January	Semester 2 February to May	Exams End of May	Project June to September	Dissertation By end of September
Exit Points	PG Certificate (30 ECTS)		PG Diploma (60 ECTS)		MSc (90 ECTS)

Special Features of the Programme

Our modules use a variety of innovative teaching and assessment methods, including written examinations, practical laboratories, coursework, group-based learning, group-work, oral presentation and dissertation. Below are some examples of what you'll be able to do.

Group Design Project

Transceiver System Design: System and major component-level (filter, amplifier, mixer) design from a requirement specification of a 2.4GHz superhet transceiver, including Matlab code for modulation, demodulation, bit timing recovery and carrier synchronisation.

Group-Based Learning

Each group with a group leader includes 5-6 students, who work on similar problems from coursework. The group members meet regularly about ones or twice per week to exchange knowledge and to discuss the problems they meet during their individual study.

Oral Presentation

Each student gives a presentation of about 8-10 minutes to show her/his investigation on a specific studying task. The assessment of a presentation is based on the design of slides, quality of presentation, knowledge and understanding, critical analysis and comparison, results, etc.

Compulsory plus Optional Coursework

There are two stages during the teaching and learning of a course. During the first stage, all students are required to complete a range of compulsory tasks, which are usually fundamentals, in order to build the basic knowledge of digital communications and wireless communications. Then, during the second stage, every student can choose to practice on one to several optional tasks, which are typically related to the techniques towards the advanced wireless communications.

Programme details

Semester 1

All modules are compulsory.

Code	Title	Level	ECTS	C/work
ELEC6238	Research Skills and Practice	7	7.5	100%
ELEC6218	Signal Processing	7	7.5	20%
ELEC6217	Radio Communications Engineering	7	7.5	70%
ELEC3203	Digital Coding and Transmission	6	7.5	0%

Semester 2

The first Two modules are compulsory and Two optional modules must be chosen from the other five:

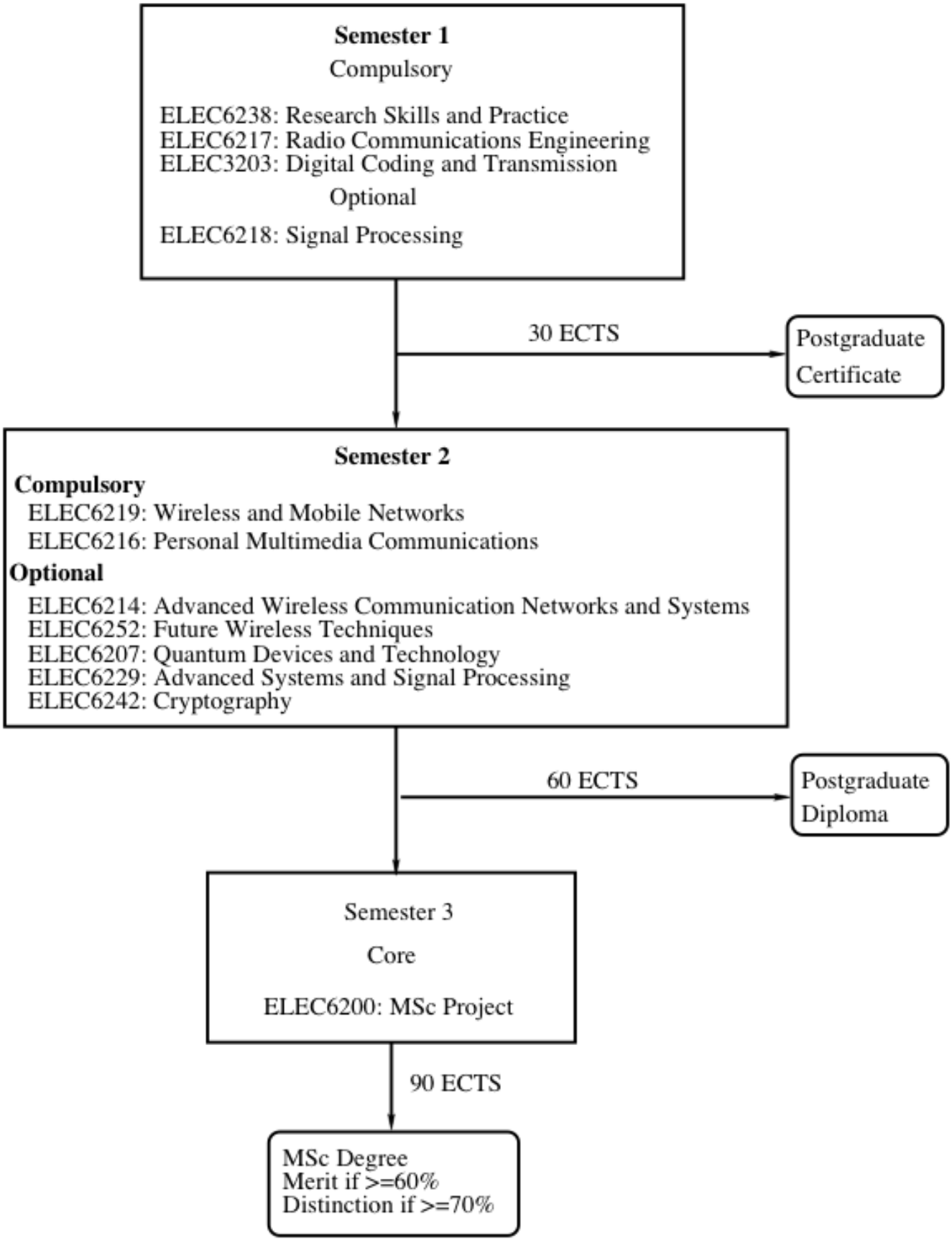
ELEC6219	Wireless and Mobile Networks	7	7.5	0%
ELEC6216	Personal Multimedia Communications	7	7.5	100%
ELEC6214	Advanced Wireless Communication Networks and	7	7.5	0%
ELEC6252	Future Wireless Techniques	7	7.5	30%
ELEC6207	Quantum Devices and Technology	7	7.5	50%
ELEC6229	Advanced Systems and Signal Processing	7	7.5	100%
ELEC6242	Cryptography	7	7.5	30%

Semester 3

The following module is core

COMP6200	MSc Project	7	30	100%

MSc Wireless Communications Programme Structure



Additional Costs

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. Costs that students registered for this programme typically also have to pay for are included in Appendix 2.

Progression Requirements

The programme follows the University's regulations for Standalone Masters programmes as set out in the University Calendar, and the ECS specific regulations which supplement these. See sections IV and XII of *http://www.calendar.soton.ac.uk*. The pass mark for MSc modules is 50%, and the regulations cover progression criteria, referral, repeat and resubmission arrangements, together with degree classification.

Intermediate exit points (where available)

You will be eligible for an interim exit award if you complete part of the programme but not all of it, as follows:

Qualification	Minimum overall credit in ECTS credits	Minimum ECTS Credits required at level of award
Diploma of Higher Education	at least 120	45
Certificate of HE	at least 60	45

For PGT programmes
You will be eligible for an interim exit award if you complete part of the programme but not all of it, as follows:

Qualification	Minimum overall credit in ECTS credits	Minimum ECTS credits required at level of award	
Postgraduate Diploma	at least 60	45	
Postgraduate Certificate	at least 30	20	

Support for student learning

There are facilities and services to support your learning some of which are accessible to students across the University and some of which will be geared more particularly to students in your particular Faculty or discipline area.

The University provides:

- library resources, including e-books, on-line journals and databases, which are comprehensive and up-to-date; together with assistance from Library staff to enable you to make the best use of these resources
- high speed access to online electronic learning resources on the Internet from dedicated PC Work-stations onsite and from your own devices; laptops, smartphones and tablet PCs via the Eduroam wire-less network. There is a wide range of application software available from the Student Public Work-stations. Students can also access SVE (Southampton Virtual Environment), a virtual Windows University of Southampton desktop that can be accessed from personal devices such as PCs, Macs, tablets and smartphones from any location.
- computer accounts which will connect you to a number of learning technologies for example, the Black-board virtual learning environment (which facilitates online learning and access to specific learning re-sources)
- standard ICT tools such as Email, secure filestore and calendars.

- access to key information through the MySouthampton Student Mobile Portal which delivers timetables, Module information, Locations, Tutor details, Library account, bus timetables etc. while you are on the move.
- Central IT support is provided through a comprehensive website, telephone and online ticketed support and a dedicated helpdesk in the Hartley Library foyer
- Enabling Services offering assessment and support (including specialist IT support) facilities if you have a disability, dyslexia, mental health issue or specific learning difficulties
- the Student Services Centre (SSC) to assist you with a range of general enquiries including financial matters, accommodation, exams, graduation, student visas, ID cards
- Career Destinations, advising on job search, applications, interviews, paid work, volunteering and internship opportunities and getting the most out of your extra-curricular activities alongside your degree programme when writing your CV
- a range of personal support services : mentoring, counselling, residence support service, chaplaincy, health service
- a Centre for Language Study, providing assistance in the development of English language and study skills for non-native speakers.

The Students' Union provides

- An academic student representation system, consisting of Course Representatives, Academic Presidents, Faculty Officers and the Vice-President Education; SUSU provides training and support for all these representatives, whose role is to represent students' views to the University.
- Opportunities for extracurricular activities and volunteering
- An Advice Centre offering free and confidential advice including support if you need to make an academic appeal
- Support for student peer-to-peer groups, such as Nightline.

Associated with your programme you will be able to access:

- IEEE Xplore: http://ieeexplore.ieee.org/Xplore/dynhome.jsp?tag=1
- References from the Southampton Wireless (SW) Research Group: http://www-mobile.ecs.soton.ac.uk/newcomms/

Methods for evaluating the quality of teaching and learning

You will have the opportunity to have your say on the quality of the programme in the following ways:

- Completing student evaluation questionnaires for each module of the programme;
- Acting as a student representative on various committees, e.g. Staff: Student Liaison Committees, Faculty Programmes Committee OR providing comments to your student representative to feed back on your behalf;
- Serving as a student representative on Faculty Scrutiny Groups for programme validation;
- Taking part in programme validation meetings by joining a panel of students to meet with the Faculty Scrutiny Group.

The ways in which the quality of your programme is checked, both inside and outside the University, are:

- Regular module and programme reports which are monitored by the Faculty;
- Programme validation, normally every five years;
- External examiners, who produce an annual report;
- A national Research Evaluation Exercise (our research activity contributes directly to the quality of your learning experience);
- Institutional Review by the Quality Assurance Agency.

Criteria for admission

The University's Admissions Policy applies equally to all programmes of study. The following are the typical entry criteria to be used for selecting candidates for admission. The University's approved equivalencies for the requirements listed below will also be acceptable.

Undergraduate programmes

Qualification	Grades	Subjects required	Subjects not accepted	EPQ Alternative offer (if applicable)	Contextual Alternative offer (if applicable)
GCE A level					
GCSE					
BTEC					
International Baccalaureate					
European Baccalaureate					

Postgraduate programmes

Qualification	Grade/GPA	Subjects requirements	Specific requirements
Bachelor's degree	2:1 Honours	Must have studied A,B,C,D (use of separate criteria Form for Wireless Communications) and achieved the country levels required = to UK2.1 (Includes areas of A =Signal processing or Signal & System or Automatic control. B= Communications Engineering or Wireless Communications or similar course. C= Advanced Mathematics or Mathematical Analysis or similar course. D = Probability Theory or Probability and Statistics or similar course.) Currently all 4 required for China applications, 3 at country level) Other countries ideally the same, however it is noted that probability is not a module always offered on some of these courses so this may be excluded for other countries or another maths modules at high lev	
Master's degree			

Mature applicants

Applications from mature students (over 21 years in the October of the year of entry) are welcome. Applications will be considered on an individual basis.

English Language Proficiency

Overall	Reading	Writing	Speaking	Listening
6.5	6.0	6.0	6.0	6.0

Career Opportunities
Graduates of the course have employment opportunities in both the industrial and academic sectors, while many of them may continue to PhD research. You may find employment in numerous industrial organisations carrying out research and development for wireless communications, although you may also find employment in many other types of technology organisations, as they usually have the special need for IT specialists.

Graduates of the course can also find employment in educational organisations, as well as in the specialised research institutes and research labs in universities.

[This will be used in the 'find a course' entry on the University website for marketing purposes]

External Examiners(s) for the programme

Name Athanassios Manikas
Institution. Imperial College London

Students must not contact External Examiner(s) directly, and external examiners have been advised to refer any such communications back to the University. Students should raise any general queries about the assessment and examination process for the programme with their Course Representative, for consideration through Staff: Student Liaison Committee in the first instance, and Student representatives on Staff: Student Liaison Committees will have the opportunity to consider external examiners' reports as part of the University's quality assurance process.
External examiners do not have a direct role in determining results for individual students, and students wishing to discuss their own performance in assessment should contact their personal tutor in the first instance.

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information can be found from the faculty handbook, which can be found at http://www.fpse.soton.ac.uk/student_handbook, and the ECS student homepage: https://secure.ecs.soton.ac.uk/student/.

Appendix 1:

Learning outcomes and Assessment Mapping document template

		Knowledge and Understanding				Subject Specific Intellectual and Research Skills						Transferable/Key Skills				
Module Code	**Module Title**	a	b	c	d	a	b	c	d	e	f	a	b	c	d	e
ELEC3203	Digital Coding and Transmission	X	x	x	x				x	x		X				X
ELEC6238	Research Skills and Practice	X	x	x	x	x	x	x	x	x	x	X	X	X	X	X
ELEC6217	Radio Communications Engineering	X	x	x	x	x	x	x	x	x	x	X	X	X		X
ELEC6218	Signal Processing		x	x	x					x		X	X		X	X
ELEC6219	Wireless and Mobile Networks	X	x	x	x				x	x		X				X
ELEC6216	Personal Multimedia Communications	X	x	x	x	x	x	x	x	x	x	X	X	X	X	X
ELEC6214	Advanced Wireless Communication Networks and Systems	X	x	x	x	x			x	x		X				X
ELEC6252	Future Wireless Techniques	X	x	x	x	x	x	x	x	x	x	X	X	X	X	X
ELEC6229	Advanced Systems and Signal Processing		x	x	x							X				X
ELEC6242	Cryptography		x	x	x					x		X				X
ELEC6207	Quantum Device and Technology	x	x		x	x	x	x	x	x	x	x	x	x	x	x
COMP6200	MSc Project	X	x	x	x	x	x	x	x	x	x	X	X		X	X

Module Code	**Module Title**	**Coursework 1**	**Coursework 2**	**Coursework 3**	**Exam**
ELEC3203	Digital Coding and Communications				100% - 2.5 hours
ELEC6238	Research Skills and Practice	40% - Algorithmic techniques in Matlab	30% - Carrier simulations	30%- Baseband simulations	
ELEC6217	Radio Communications Engineering	5% - Software defined radio exercise	15% - Matlab simulation	50% - Transceiver System Design	30% - 1 hour
ELEC6218	Signal Processing	10% - report	10% - report		80% - 2 hours
ELEC6219	Wireless and Mobile Networks				100% - 2.5 hours
ELEC6216	Personal Multimedia Communications	10% - Presentation	20% - Progress report	70% - Final report	
ELEC6214	Advanced Wireless Communication Networks and Systems				100% - 2.5 hours
ELEC6252	Future Wireless Techniques	15% - MIMO techniques	15% - Cooperative communication		70% - 2 hours
ELEC6207	Quantum Device and Technology	50% - Specialist lab and report			50% - 2 hours
ELEC6229	Advanced Systems and Signal Processing	10% - test	60% - three assignments	30% - Final coursework	
ELEC6242	Cryptography	30% - Cryptanalysis Investigation			70% - 2 hours
COMP6200	MSc project	100% - dissertation			

Appendix 2:

Additional Costs

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for each programme of study. In addition to this, students registered for this programme typically also have to pay for the items listed in the table below.

In some cases you'll be able to choose modules (which may have different costs associated with that module) which will change the overall cost of a programme to you. Details of such costs will be listed in the Module Profile. Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at www.calendar.soton.ac.uk.

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
Approved Calculators		Candidates may use calculators in the examination room only as specified by the University and as permitted by the rubric of individual examination papers. The University approved models are Casio FX-570 and Casio FX-85GT Plus. These may be purchased from any source and no longer need to carry the University logo.
Stationery		You will be expected to provide your own day-to-day stationary items, e.g. pens, pencils, notebooks, etc). Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile.
T**extbooks**		Where a module specifies core texts these should generally be available on the reserve list in the library. However due to demand, students may prefer to buy their own copies. These can be purchased from any source. Some modules suggest reading texts as **optional** background reading. The library may hold copies of such texts, or alternatively you may wish to purchase your own copies. Although not essential reading, you may benefit from the additional reading materials for the module.
Equipment and Materials Equipment	Art Equipment and Materials: Drawing paper; painting materials; sketchbooks	
	Art Equipment and Materials: Fabric, Thread, Wool	
	Design equipment and materials:	
	Excavation equipment and materials:	
	Field Equipment and Materials:	
	Laboratory Equipment and Materials:	
	Medical Equipment and Materials: Fobwatch; stethoscopes;	

Main Item	Sub-section	PROGRAMME SPECIFIC COSTS
	Music Equipment and Materials	
	Photography:	
	Recording Equipment:	
IT	Computer Discs	
	Software Licenses	
	Hardware	
Clothing	Lab Coats	
	Protective Clothing: Hard hat; safety boots; hi-viz vest/jackets;	
	Fieldcourse clothing:	
	Wet Suits?	
	Uniforms?	
Printing and Photocopying Costs		In the majority of cases, coursework such as essays; projects; dissertations is likely to be submitted on line. However, there are some items where it is not possible to submit on line and students will be asked to provide a printed copy.
Fieldwork: logistical costs	Accommodation:	
	Insurance	
	Travel costs	
	Immunisation/vaccination costs	
	Other:	
Placements (including Study Abroad Programmes)	Accommodation	
	Insurance	
	Medical Insurance	
	Travel costs	
	Immunisation/vaccination costs	
	Disclosure and Barring Certificates or Clearance	
	Translation of birth certificates	
	Other	
Conference expenses	Accommodation	
	Travel	
Optional Visits (e.g. museums, galleries)		
Professional Exams		
Parking Costs		
Anything else not covered elsewhere		

Revision History

1. Minor revisions (including title) 10 July 2007 (SCK
2. New Brand added July 2008
3. Updated to reflect University restructuring June 2011 AB.
4. Revisions approved by Senate 19 June 2013 as part of new programme validation process
5. Minor changes made to form guidance on completion of Intended Learning Outcomes, and Learning outcomes and Assessment Mapping document template, for clarity; and changes to wording of support for student learning section, altering to second person throughout – agreed with the Chair and to be reported to UPC October 2013
6. Updated to reflect university restructuring in Feb. 2014.
7. Made minor changes in April 2014
8. Update to Support and Student Learning, IT Services - June 2015
9. Update to Language Requirements - June 2015
10. Approved by ECS Education Committee - 10 June 2015
11. Update to Programme Overview (CMA Changes) – 24 August 2015
12. Update to Programme Overview (CMA Changes) – 14 September 2015
13. Checked and corrected a few of spelling errors – 07 January 2016
14. 2016-17 FPC Approval – 24 February 2016
15. Optional Module Viability added – 07 December 2016
16. Optional module: Future Wireless Techniques, added for 2017/18 – 03 January 2017
17. FPC approval for 17/18 – 03 March 2017
18. FPC approval of optional module size caveat – CQA team, 07 December 2017