Template C4

Kingston University London

Programme Specification

Title of Course: *BSc (Hons) Cyber Security and Digital Forensics top-up*

Date first produced	01/03/2018
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Version number	6
Faculty	Faculty of Engineering, Computing and the Environment
School	School of Computer Science and Mathematics
Department	Department of Networks and Digital Media
Delivery Institution	ESOFT Metro Campus

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): *Up to 10 pathways*	BSc (Hons) Cyber Security and Digital Forensics top-up
Intermediate Awards(s) and Title(s): *There are 4 Intermediate awards for each pathway*	Ordinary Degree
Course Code *For each pathway and mode of delivery*	
UCAS code *For each pathway*	N/A

RQF Level for the Final Award:	6Computing
Awarding Institution:	Kingston University
Teaching Institution:	ESOFT Metro Campus
Location:	ESOFT Metro Campus, Sri Lanka
Language of Delivery:	English
Modes of Delivery:	Part-time Full-time
Available as:	Full field
Minimum period of registration:	Part-time - 2 Full-time - 1
Maximum period of registration:	Part-time - 4 Full-time - 2
Entry Requirements:	1. Edexcel HND Levels: A pass in the relevant HND to include a pass in the sixteen units listed in Appendix A Table 1 and / or Table 2 below (or their equivalent) and the achievement of an overall score of 240 credit points of which 120 would be at Level 5 Or 1. Completed the 2nd year of the University Of Colombo, School Of Computing's Bachelor of Information Technology External Degree, covering the subjects shown in Appendix-A Table 3. Or 1. Completed the British Computer Society's (BCS) Higher Education Qualification's (HEQ)

	Certificate and Diploma levels, shown in Appendix-A Table 4. Or 1. Case by case consideration of equivalent academic and professional qualifications achieved at comparable levels A minimum overall IELTS score of 6.0 with a minimum of 5.5 each element, iBT TOEFL 80 with R at 20, L at 19, S at 21 and W at 20 or equivalent is required for those for whom English is not their first language. A minimum of a Credit pass at the Sri Lankan G.C.E O/L English Language exam will also be considered as equivalent to this level. We will consider a range of alternative qualifications or experience that is equivalent to the typical offer. Applications from international students with equivalent qualifications are welcome. All applications will be subject to the Kingston University Accreditation of Prior Learning (APL) rules and regulations applicable at the time of application.
Programme Accredited by:	None
QAA Subject Benchmark Statements:	The QAA subject benchmarks for Computing and the Framework for Higher Education Qualifications of UK Degree-Awarding Bodies (2014)
Approved Variants:	Compensation of modules: Compensation is permitted in at most 30 credits across the programme, excluding the CI6600 Individual Project module. A module, other than CI6600, with a grade of F5 (marks of 35-39) can be compensated for a PC grade by at least 90 credits passed at that level.
Is this Higher or Degree Apprenticeship course?	

For Higher or Degree Apprenticeship proposals only	
Higher or Degree Apprenticeship standard:	n/a
Recruitment, Selection and Admission process:	n/a

End Point Assessment Organisation(s):	n/a

SECTION 2: THE COURSE

A. Aims of the Course

The field shares the general aims and objectives of the Undergraduate Modular Scheme. The aims of the Field are to produce graduates who have: -

- a thorough understanding of the structure and operation of computer systems and networks, and an awareness of ways in which computers are applied to software engineering problems and data management;
- an understanding of the varieties and impact of cybercrime and how digital devices may be used to aid criminal activities;
- knowledge of the legal system, legal processes, relevant laws and the regulatory environment related to the handling of digital evidence and forensic investigations;
- the ability to undertake digital forensic examinations, to support or oppose an investigative case;
- the knowledge and skills to select and employ appropriate software for use in forensic investigations;
- the ability to handle information, collect digital evidence, apply evidence management strategies, present evidence and conclusions;
- an adequate foundation to enable them to appreciate and absorb future developments in computer and network security; and to communicate with others within and across discipline boundaries regarding the design and implementation of solutions and techniques;
- a range of transferable skills including working in teams, time-management, research, writing (user documentation, reports, handouts) and oral presentation of findings.

B. Intended Learning Outcomes

The course outcomes are referenced to the relevant QAA subject benchmarks for Computing and the Framework for Higher Education Qualifications of UK Degree-Awarding Bodies (2016) and relate to the typical student. The course provides opportunities for students to develop and demonstrate knowledge and understanding specific to the subject, key skills and graduate attributes in the following areas;

The programme learning outcomes are the high-level learning outcomes that will have been achieved by all students receiving this award. They must align to the levels set out in the '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
A4	the design and implementation of computer networks	B4	critically evaluate issues which arise in the domain of cyber security, Digital Forensics and computing more generally, regarding legal, social and ethical issues	C5	demonstrate the technical ability to search and disseminate information using the various tools of the Internet
A3	how computing as a technology employed by society, relates to and interacts with other technologies, and an awareness of its current and likely future impact upon society	B2	acquire, analyse critically and synthesise knowledge from texts and technical documentation, from people, and from observation of and participation in activities	C4	demonstrate project management controls and communication skills
A1	the operation of the components of a computing system	B1	apply the knowledge, skills and attitudes developed during the course to practice within the profession	C3	present and document results at a level which is appropriate to the computing knowledge of the recipient
A2	the planning of a computer investigation, using various acquisition tools and interpret the evidence	B3	translate Digital Forensics requirements into specifications and designs that meet current and future needs	C2	demonstrate skills applicable to key stages of digital forensics processes
				C1	identify, collect, analyse, organise and validate digital evidence
				C6	communicate effectively with other scientists in specifying system objectives, implementing solutions using appropriate software and evaluating the results

In addition to the programme learning outcomes, the programme of study defined in this programme specification will allow students to develop the following range of Graduate Attributes:
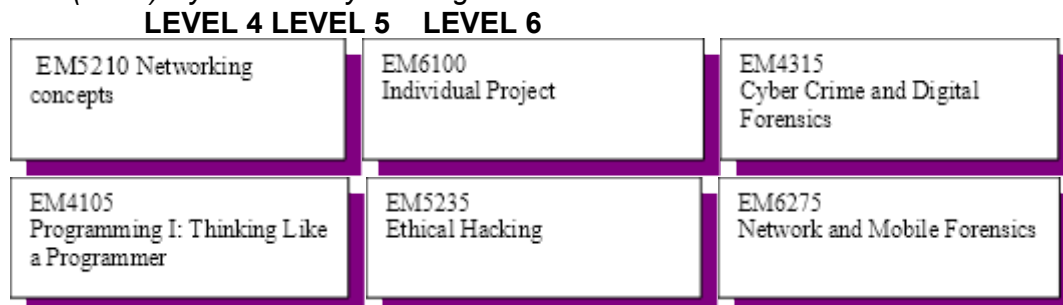1. Creative Problem Solving
2. Digital Competency
3. Enterprise
4. Questioning Mindset
5. Adaptability
6. Empathy
7. Collaboration
8. Resilience
9. Self-Awareness

C. Outline Programme Structure

Full details of each module will be provided in module descriptors and student module guides.
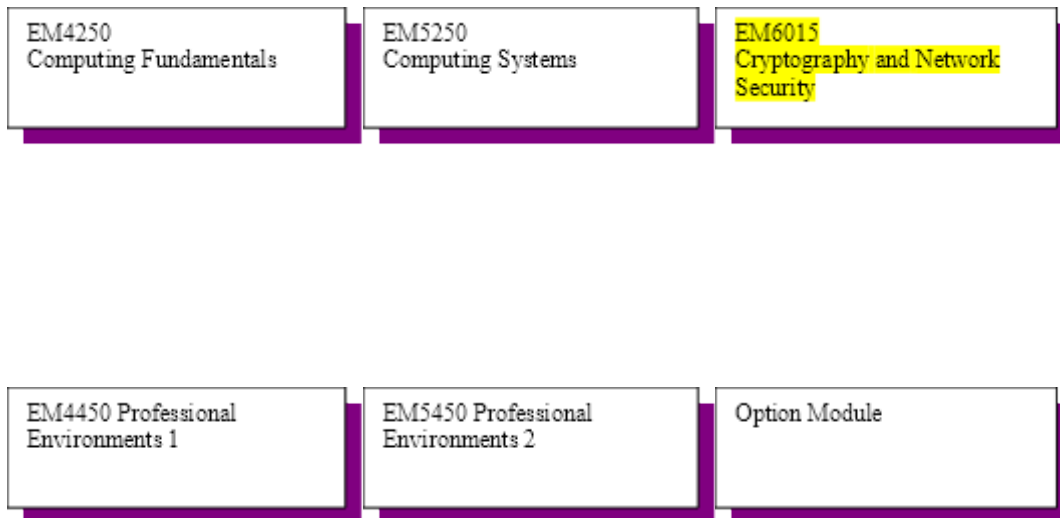
Note: As per GR5 within the general regulations, the University aims to ensure that all option modules listed below are delivered. However, for various reasons, such as demand, the availability of option modules may vary from year to year or between teaching blocks. The University will notify students by email as soon as these circumstances arise.

BSc (Hons) Cyber Security and Digital Forensics

LEVEL 4	LEVEL 5	LEVEL 6
EM5210 Networking concepts	EM6100 Individual Project	EM4315 Cyber Crime and Digital Forensics
EM4105 Programming I: Thinking Like a Programmer	EM5235 Ethical Hacking	EM6275 Network and Mobile Forensics

INDUSTRIAL PLACEMENT

EM4250 Computing Fundamentals	EM5250 Computing Systems	EM6015 Cryptography and Network Security

EM4450 Professional Environments 1	EM5450 Professional Environments 2	Option Module

Each level is made up of four modules each worth 30 credit points. Typically, a student must complete 120 credits at each level. All students will be provided with the Campus regulations and specific additions that are sometimes required for accreditation by outside bodies (e.g. professional or statutory bodies that confer professional accreditation). Full details of each module will be provided in module descriptors and student module guides.

Part time students

Part time students should take core modules first, apart from the Individual Project, which is taken last.

Level 4

BSc (Hons) Cyber Security and Digital Forensics top-up

Progression to Level 5

Progression to Level 5 requires 120 credits including passes in above 4 modules. Students exiting the programme at this point who have successfully completed 120 credits are eligible for the award of Certificate of Higher Education.

Progression to Level 6

Progression to Level 6 requires 240 credits including passes in above 4 modules.

Students exiting the programme at this point who have successfully completed 240 credits are eligible for the award of Diploma of Higher Education.

Placement

Students who are on the sandwich course take the placement module EM5999 Industrial Placement

Level 6							
BSc (Hons) Cyber Security and Digital Forensics top-up							
Core modules	**Module code**	**Credit Value**	**Level**	**Teaching Block**	**Pre-requisites**	**Full Time**	**Part Time**
Individual Project	CI6600	30	6	Ty13		1	1
Cryptography and Network Security	CI6015	30	6	TB1		1	1
Threat Hunting, Analysis and Mitigation	CI6280	30	6	TB2		1	1
Optional Modules							
Digital Entrepreneurship	CI6415 E	30	6	TB2		1	1
Internet Services and Protocols	CI6250	30	6	TB2		1	1
Software Development Practice	CI6125	30	6	TB1		1	1

Level 6 requires the completion of

Level 6 requires the completion of the three core modules plus one optional module.

D. Principles of Teaching, Learning and Assessment

The learning and teaching strategies reflect the programme aims and learning outcomes, typical student background, potential employer requirements, and the need to develop a broad range of technical and professional skills with the ability to apply them appropriately. The strategies ensure that students have a sound understanding of computing and have acquired the transferable skills expected of modern-day graduates.

The programme is designed according to the Kingston University Curriculum Design Principles and it utilises a wide range of teaching and learning methods to enable all students to be actively engaged throughout the course. The learning, teaching and assessment strategies reflect the programme aims and learning outcomes, student background, potential employer requirements, and the need to develop a broad range of technical skills with the ability to apply them appropriately.

The academic year includes scheduled contact time for lectures, workshops, enhancement activities, and revision. The standard module provision includes laboratory sessions, seminars, group work – to underpin the principles taught in the lectures – but, also dedicated programming aid sessions for students needing further help.

The capstone project is a mandatory part of the programme. It offers students the opportunity to integrate their cumulative academic studies and practical skills within a single project, which may be for a real client.

Learning computer science is often most readily undertaken in the context of the search for solutions to real-life problems. This is reflected in the approach that will be gradually introduced to this programme, alongside conventional classroom teaching, and is epitomised in the problem-centred learning practice. Students will be frequently working in groups, focusing on real-world problem solving. This will contribute to creating a rich learning environment in which students and their teachers collaborate as a team. It significantly enhances students' readiness for employment in industries where different skills and backgrounds complement each other to deliver a better product.

ESOFT's Learning Management System (ELMS), the Campus' virtual learning environment (VLE), is used extensively in all modules as a communication tool and means of dissemination of learning and reference materials, formative worksheets, assignments, links, videos and lecturer-annotated slides. In this way it acts as a dynamic study guide in each module and provides a structured learning space to support students for independent study, facilitate discussion, and in addition, in some modules, for formative and summative tests and surveys. ELMS (VLE) is also used to facilitate group work, both formatively and summatively.

Study materials, including examples and exercises, are published on ELMS in advance of the time-tabled sessions, to allow students to prepare and benefit fully from classroom time. The availability of this material assists students from various backgrounds to achieve a common level at the start of the session or to highlight any deficiencies which they can then address with the lecturer.

Students are encouraged to develop as independent learners as they progress through their course. This is supported explicitly through the individual project module.

Assessment and Feedback

The assessment is regarded as an integral part of our learning and teaching strategy and incorporates both assessments of and for learning. Ample opportunities are given to students for formative assessment with rapid feedback.

A wide range of assessment mechanisms is used to ensure that students with diverse backgrounds and different strengths and abilities are not disadvantaged and to ensure that our students are capable of tackling many different types of problems. The methods of assessment have been selected so as to be most appropriate for the nature of the subject material, teaching style and learning outcomes in each module and the balance between the various assessment methods for each module reflects the specified learning outcomes. Emphasis is given to authentic assessments based on real-world problems. This allows the students to produce "artefacts" as outcomes of the assessment process, forming a portfolio which provides tangible evidence of their developing skills and knowledge thus enhancing their employment prospects.

Inclusive Teaching Practice

Opportunities to ensure that the curriculum is inclusive take place at forums such as the Student Voice Committees and supported by discussions at module and course level. Academic forum meetings take place between subject teams to consider subject specific issues. The variety of teaching activities also takes account of the students' different learning preferences and experiences and there is a careful balance of individual and group based activities.

Marking criteria are provided for all assessments as part of the assessment booklet at the beginning of the year for each module and care is taken to ensure that the language used in the assessment is jargon free, which is checked by the moderator. The case studies used are designed to be inclusive.

Feedback, in a variety of formats provides students with guidance in developing skills which are both beneficial for future assessments and highly valued by employers.

The 30 credit capstone Individual Project, consolidates independent learning skills and typically provides an opportunity for practical application of their academic knowledge to the implementation of a solution or construction of a suitable artefact.

In the programme as a whole, the following components might be used in the assessment of the various modules:

- Practical exercises: to assess students' understanding and technical competence.
- Individual and group-based case studies: to assess ability to understand requirements, to provide solutions to realistic problems and to interact and work effectively with others as a contributing member of a team. The outcomes can be:
  - o Written report, where the ability to communicate the relevant concepts, methods, results and conclusions effectively will be assessed.
  - o Oral presentation, where the ability to summarise accurately and communicate clearly the key points from the work in a brief presentation will be assessed.
  - o Poster presentation where information and results must be succinct and eye-catching.
  - o Video, which may replicate features of oral presentations but allows advance preparation away from the audience (which may suit some students better).
  - o Articles, emphasising the ability to communicate with different audiences.
  - o Interviews, emphasising the ability to answer questions appropriately and relevantly.
  - o Simulated client interactions: letters, quotations, etc.

- Multiple choice or short answer questions: to assess competence in basic techniques and understanding of concepts.
- Long answer structured questions in coursework assignments: to assess the ability to apply learned techniques to solve simple to medium problems and which may include a limited investigative component.

- Long answer structured questions in end-of-module examinations: to assess overall breadth of knowledge and technical competence to provide concise and accurate solutions within restricted time.
- Project: The individual project module represents an opportunity for students to draw together different aspects of their learning on the course and to apply the techniques learned in an extended study. As such the assessment here will place a greater emphasis on the ability to plan work, manage time effectively, and research background information, culminating in a written report and interview.

At the beginning of each academic year there is a joint department-wide meeting at which the delivery of material and assessments is planned with a full calendar being constructed. This ensures:

- that care is taken to avoid summative assessment bunching and thus manage student workloads.
- synchronised and coherent delivery of material across the programme in a way that is visible both to staff and students, thus enabling assessments to draw on skills and knowledge from an appropriate variety of modules.

Students are expected to develop their skills, knowledge, confidence and understanding through independent and group learning, in the form of guided and self-directed study, and the exploration of the application of computing in the real world, throughout their course. These are reinforced with professional development opportunities tailored for the top-up level and delivered by the ESOFT Career Guidance Unit. Furthermore, all students explore group case studies in computing and information systems, requiring the collaborative investigation/solution of some real world problems as well as the production of written reports and oral or poster presentations. These foster the development of team-working, research and (formal) communication skills. All students will carry out research and development and present the background to and findings of their projects as indicated above. This will enhance their research and investigative skills to explore and master complex new ideas, learn and apply advanced techniques and further develop their independent working and communication skills.

Research Informed Teaching

The course team is research active within the ESOFT Research Centre (ERC), which is dedicated to the advancement of the theory and applicability of computer science to enable internationally-leading work in the field of informatics, addressing the needs of society in the thematic areas of health, communications, security and data. The centre provides an inclusive and outward looking environment for research development, fostering interdisciplinary and multidisciplinary research to achieve maximum impact in real-world applications.

The ERC is still in its early stages. An international research journal has already been published, and academic staff is actively encouraged to take part in all areas of research. The ERC is a specific requirement of the University Grants Commission (UGC) in terms of approving the application that has been submitted by ESOFT Metro Campus to be recognised as a non-state degree awarding institution.

There is good linkage between research and teaching and the teaching team for computer science draws from ERC members.

Students are also able to develop their research skills which form a fundamental part of the Level 6 curriculum. These are particularly emphasised through the supporting lectures linked to the CI6600 individual project module, and problem-based assessment tasks found in other modules. These skills enable students to distinguish and present appropriate evidentiary information in an argument. These skills are greatly valued by employers.

Staff members also engage with research into teaching and learning in Higher Education which feeds through to support learning in lectures and other forms of student engagement during contact time.

E. Support for Students and their Learning

Students are supported by a highly qualified team of academic staff that includes individuals in the following roles:

- A Course Director to help students understand the programme structure
- A Module Leader for each module
- A Personal Tutor to provide academic and personal support

Additional support is provided by the following specialist staff:

- A Placement Tutor to give general advice on placements
- Technical Support to advise students on IT and the use of software
- A designated Programme Administrator
- English language support for international students

Matters outside the academic arena are supported by:

- Student support facilities that provide advice on issues such as finance, regulations, legal matters, accommodation, international student support etc.
- Disability and dyslexia student support
- Careers and Employability Service
- ESOFT Student Council(ESC)
- An induction week at the beginning of each new academic session
- Staff Student Consultative Committee
- A virtual learning environment (VLE) available on the Campus' intranet

The students are introduced to all these mechanisms during induction sessions at the beginning of each new academic year. It is here that the level 4 students first encounter the Campus' computer network, which includes their personal access to the VLE and how to use it as a learning environment. They are also encouraged to make use of important resources that provides additional help across a range of academic skills.

Students are expected to be involved in the development of their programme. On an individual level through meetings with their personal tutors at which they can discuss their academic progress, personal development and can seek advice on course and module choices in the light of their career aspirations. As a cohort, students can contribute to many aspects of programme evolution for example by student representation on committees including Staff Student Consultative Committees as well as by their formal and informal feedback such as the mid-module and end-of-module reviews.

Support for Academic Skills

There is a Student Support Team to help students with any problem has an effect on their studies. This can range from illness, problems writing an assignment, questions about academic regulations to serious confidential issues.

The Personal Tutoring Scheme (PTS)

There exists a Faculty-wide student support system. It includes, for example, a SEC wide drop-in centre where students could seek advice without an appointment; also, they can email, or phone a designated number to get instant help. Students are assigned a member of the computing academic staff as their Personal Tutor (PT) which they retain for the full three or four-year duration of their time at Campus. The first contact between student and PT is during Induction Week for an introductory meeting and thereafter the following procedure is followed:

Level 4 [settling in and building confidence]

In the first year (Level 4) PTs follow-up the Induction Week contact with a 1-to-1 meeting between weeks 1 and 3 in order to discuss any academic or pastoral issues that might have arisen during this important settling-in period. Employability topics such as the value of industrial placements and internships are introduced; they are encouraged to think about compiling a CV in preparation for their future applications (this is followed up in the professional environments module).

Throughout the first teaching block, dedicated academic sessions encourage the students to work together in their tutor groups in formative assessments to facilitate the bonding of these individuals into self-supporting study teams which are intended to endure. In addition, selected second year students are recruited as mentors in the Level 4 programme to encourage the community spirit of their course and foster engagement.

Student attendance is closely monitored from the first teaching week. In the Professional Environment module, this includes monitoring attendance and participation in group (team-based) workshops where students are developing their group working skills. Those absent from classes are contacted by their tutor to determine whether they need additional support. This is to address the danger of poor attendance at the beginning of the course which can be associated with poor academic outcomes.

Subsequent PT meetings are motivated by continued monitoring of formative assessment in core modules and helping students to begin preparing for summative assessments by providing support. Where problems exist, both PTs and the module team(s) will direct students to relevant support programmes.

Level 5 ['stepping it up' and broadening horizons]

In the second year the focus of the PT system is to encourage students to begin looking forwards, toward some form of academically-relevant placement activity, perhaps as a full-scale Industrial Placement in year 3, or as some form of identifiable engagement with industry, such as a relevant short-term placement, summer work or a subject-relevant internship. All students receive information from the ESOFT Career Guidance Unit (ECGU) team on the process and opportunities before the winter vacation.

The PT highlights the importance of students engaging with this in their "welcome back" induction meeting in week 1, together with an explanation of how Level 5 modules contribute to degree classification and any other differences in course structure and assessment procedures between Level 4 and Level 5.

Level 6 [maximizing success and moving on]

In the final year the focus shifts to graduation and employability and the PT scheme uses the capstone project module to promote PT-style discussions alongside regular project meetings

In the first weeks of term the PT's role is to welcome students back, encourage them to reflect on their progress and module feedback, and plan to make the most of their final year, exemplified by early deliverables in the project module. Throughout Level 6, the ESOFT Career Guidance Unit (ECGU) team provides activities which the PT signposts for students, some of which are delivered within and linked explicitly to sessions and assignments in core modules.

After the winter vacation, the PT meets with their tutees to discuss the opportunities for graduate study and employment and provide contact details for employers' reference requests. The final project is a key employability "artefact". Students can seek advice from their personal tutor or project supervisor who may be a different academic.

Both the Project Supervisor and Personal Tutor are able, in collaboration with ESOFT Career Guidance Unit (ECGU), to encourage students how best to present their project on their *CV* and at interview.

F. Ensuring and Enhancing the Quality of the Course

The ESOFT Metro Campus has several methods for evaluating and improving the quality and standards of its provision. These methods are actively monitored by the Kingston University. These include:

- External examiners
- Boards of study with student representation
- Annual review and development
- Periodic review undertaken at subject level
- Student evaluation
- Moderation policies

G. Employability and work-based learning

Computing qualifications are amongst the most versatile and enable graduates to find employment in a wide spectrum of careers ranging from systems and business analysts, and software engineers, through to programmers and network specialists in a wide range of public and private sector industries.

The Kingston University's is largely applied in nature with many case studies chosen for their topicality and relevance to industry such as information systems design, programming, networking, and implementation issues. Working on case studies designed to simulate the working environment, typically in teams, gives students experience of applying their computing, information systems and networking methods and key skills to open-ended problems with complex solutions, and presenting their findings, including any limitations, in a professional manner. This mirrors the experience of computing professionals working in commerce and industry. To further set the material in context as well as inspire our students, leading practitioners from industry. Throughout the course students develop communication and interpersonal skills, learn time management and the value of prioritising and planning by involvement in the learning activities outlined in section F above.

In preparation for their future employment we make extensive use of industry standard software and tools throughout the course.

Personal Development Portfolio (PDP)

PDP is centred on student learning and development to encourage the student to become a more effective, independent and confident self-directed learner which appeals to employers. The student is responsible for engaging with the PDP process which is introduced in the core Professional Environments modules to support them and enable them to reflect upon their learning and achievements, formulate study action plans and to plan their career development needs. Students create a personal record of learning containing evidence of their qualities, key skills, achievements and products (artefacts of their learning and assessments) to support industrial placement applications and future job applications or applications for graduate studies. The development plans are reviewed regularly for feedback from their personal tutor

Industrial Placement (IP) and its Importance to Student Employability

All of our students are encouraged to make use of the opportunity to enhance their learning and personal development by undertaking a Summer Internship between years of study and/or an industrial placement in the third year of their programme. All placements are vetted to ensure that they provide a relevant experience in which students can apply their learning in a practical situation. All placement students on the course receive comprehensive support from the placement specialists within the ESOFT Career Guidance Unit (ECGU) team in securing a position and while in the workplace, although ultimately the responsibility for the placement remains with the student. Students also gain employability and transferrable skills through participation in the School's annual monitoring process (*e.g.* as student representatives on the Staff Student Consultative Committee, Board of Study and Faculty Board), through volunteering as Student Ambassadors, where our students have been excellent ambassadors for our courses at Open Days, Enrolment and Induction events. Large numbers of suitable employers and alumni come to the Campus to take part in Careers Fairs, deliver talks and to recruit students for specific opportunities

Our programme is designed to embed employability skills within the curriculum at all levels and develop students' ability to recognise their personal and academic achievements and career aspiration. This is fostered through the strand of professional environments modules built into the programme from the start. During these, students experience a transition from guided towards independent learning and career planning and development, through a series of sessions, offered under the auspices of ESOFT Career Guidance Unit (ECGU), including; Professional Communication, Time and Self-Management and Identifying and Articulating Skills. There are also opportunities to perfect skills required to gain employment such as; CV writing, Psychometric Test and Using LinkedIn. These modules are shared with other courses in the School and students study and work in a multidisciplinary environment, developing their ability to communicate with non-mathematicians. In this way students gain insight into the true nature of commercial teamwork, harnessing a range of different talents and skills to tackle complex problems, preparing them for the workplace. As they progress students enhance their planning, teamwork and communication skills, (in the professional environments modules and throughout the programme) and show evidence of these though oral and poster presentations and both individual and group written reports. Outputs from these (written reports, posters and records, e.g. as videos and/or slideshows), plus products such as computer programs or results from modelling exercises on real-world problems, can be collated into a portfolio which may be presented to potential employers. Furthermore, their personal development and career options and plans are discussed with their personal tutors at regular intervals throughout their studies, and guidance given as appropriate. This is in liaison with the ESOFT Career Guidance Unit (ECGU) team, the Campus' Careers Service.

This theme culminates in the Level 6 capstone project module, which draws together the academic strands of the course. It also enhances students' employability skills in different ways, giving them an insight into what professionals do in graduate careers. Typically, the project involves the creation of an artefact relevant to the course, often with some new element or feature. Undertaking this type of activity gives students a taste of independent research, albeit supported by the supervisor, as they familiarise themselves with the real-world situation and the techniques required to investigate it. In the project, students are encouraged to

develop their critical thinking, creative and analytical skills, and gain experience and proficiency in technical writing. When choosing their Level 6 option choices and project topic, students are guided by their Personal Tutor regarding what possible choices best suit their career aspirations.

The experiences gained during, and their reports and presentations on, students' projects can provide a valuable case study to be cited in job applications and, if shortlisted, a focus for discussion and demonstration of professional skills in interviews. This has proved to be vitally important for several recent graduates, for whom giving an account of their project and the skills developed therein was crucial in securing a position of graduate employment during their interviews.

Cyber Security and Computer Digital Forensics jobs are often available in (but not limited to) law-enforcement agencies, military and government intelligence agencies, private security and consulting companies.

Graduates can work as penetration testers (finding security vulnerabilities in target systems, networks, and applications in order to help enterprises improve their security), Forensic Analysts (recovering and examines data from computers and other electronic storage devices in order to use the data as evidence in criminal prosecutions), Incident Responders (members of a team that reviews services and information at risk to contain and eradicate threat agents by providing service recovery guidance).

Work-based learning, including sandwich courses and higher or degree apprenticeships

The ESOFT Career Guidance Unit (ECGU) career service has a dedicated team for sourcing industrial placements. We are already in contact with potential employers in the industry via our contacts with Computer Society of Sri Lanka (CSSL), BCS Sri Lanka Section, Federation of Information Technology Industry Sri Lanka (FITIS), and Sri Lanka Association of Software and Service Companies (SLASSCOM). Placement specialists within the ESOFT Career Guidance Unit will help students throughout the application process, preparing for interviews and transition to work; for example, with mock interview sessions, CV workshops, careers fairs and speakers from the industry. The team will monitor and assist students while in industry. Placement students will be visited by a network of academics at their workplaces who would also act as placement tutors.

Work placements are actively encouraged as they expose students to a real working environment, which makes them more experienced and employable after their first degree. Work placements also enable employers to find employees for permanent positions. Note that ultimately it is the responsibility of individual students to source and secure work placements.

H. Other sources of information that you may wish to consult

QAA Benchmark statement website:
http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Subject-benchmark-statement-Computing.aspx
Professional or statutory body information: http://www.bcs.org/
Module guides
Course handbook

Guidance on Enterprise and Entrepreneurship (Draft)
http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/EE_Draft_Guidance.pdf

I. Development of Course Learning Outcomes in Modules

This table maps where course learning outcomes are **summatively** assessed across the 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					
		CI6015	CI6600	CI6280	CI6250	CI6125	CI6415E
Knowledge & Understanding	A4						
	A3						
	A1						
	A2						
Intellectual Skills	B4						
	B2						
	B1						
	B3						
Practical Skills	C5						
	C4						
	C3						
	C2						
	C1						
	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.