

Course Information Form (CIF)

The CIF provides core information to students, staff teams and others on a particular course of study.

Section 1 - General Course Information	
Course Title	MSc Cyber Security
Qualification	MSc
Intermediate Qualification(s)	PG Cert Cyber Security (60 credits) PG Dip Cyber Security (120 credits)
Awarding Institution	University of Bedfordshire
Location of Delivery	AA – University Square Campus
Mode(s) of Study and Duration	Part-time block mode course: 2 years (24 months)
Core Teaching Pattern	N/A
FHEQ Level	Level 7
Professional, Statutory or Regulatory Body (PSRB) accreditation or endorsement	
PSRB Renewal Date	
University of Bedfordshire Employability accreditation	
Route Code (SITS)	MSCYSAAP
Subject Community	Computer Science and Technology
UCAS Course Code	Not applicable
Relevant External Benchmarking	QAA Subject Benchmark Statement Computing, 2016 http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/QAA386_Computing.pdf QAA FHEQ level descriptors (M Level).

Section 2 - Published Information

Material in this section will be used on the course web site to promote the course to potential students. The text should be written with this potential audience in mind.

Course Structure

The Units which make up the course are:

Unit Code	Level	Credits	Unit Name	Core or option
CIS097-6	7	30	Tactical and Strategic Cybersecurity Management	Core
CIS098-6	7	30	Cyber Defence	Core
CIS102-6	7	30	Information Governance and Compliance	Core
CIS099-6	7	30	Research Methodologies and Project Management	Core
CIS106-6	7	60	MSc Project in Cybersecurity	Core

Why study this course

The MSc in Cybersecurity seeks to address the increasing demand in cybersecurity related domains in both academic vocational qualifications and projection for an increased shortage of cybersecurity professionals in the industry. The programme is one of the few courses to be offered in block mode teaching over weekends and scales around full-time employment and minimise the amount of face-to-face delivery. Students are expected to physically attend sessions for a maximum of four weekends for any given unit in their course. The programme is delivered by a dedicated team of cybersecurity experts and active researchers in the area and gives also the opportunity to acquire certain units from the programme as dedicated credit-based short courses outside the normal MSc route. Using cutting edge and leading teaching and training techniques the course helps the candidates to realise the unique complexity and challenges associated with cybersecurity in a highly dynamic and constantly evolving threat landscape in a blended programme that amalgamates both management and hands-on skills required by cybersecurity professionals.

Course Summary – Educational Aims

The educational aims of this course are as follows:

- Enhance critical understanding of security processes, methodologies and practices with clear references to standards and legal requirements around cybersecurity domains so as to better fit theory into practice. The course will provide the foundations to understand and analyse threats actors, multistage cyber-attacks and proper controls in place to mitigate their risks and impact in alignment with the information security strategies and policies imposed.
- The course will offer students the synthesis skills required around security breaches and violations in all domains of interactions in the cyberspace (physical, natural and electronic) and help them to further articulate and understand the importance of compliance, auditing and governance in modern Information security management systems.
- Be exposed to a wide range of pedagogical approaches in articulation of network defence and offence tools and techniques with strong system administration as part of the skills development throughout the programme. This will give students a more holistic education experience that strikes a balance between the technical and management skills much on demand in the cybersecurity domain.
- The programme will develop the appropriate learning platform to enhance research underpinned teaching and further students to doctoral level of studies while increasing their awareness and exposure to the relevant professional codes and conduct expected of Information security professionals and active researchers.

Entry requirements

Standard:

A UK honours degree or equivalent in Computer Science, Networking, Security, or Engineering.

Alternatively:

Evidence of industrial certifications in Information security such as CISSP, CEH, BCS will also be considered for suitable candidates with a minimum of 3 years working experience in related industries. An interview process will also be utilised to verify suitability for the course for candidates with non-standard academic backgrounds but with demonstrable industry experience in the field.

PSRB details

n/a

Graduate Impact Statements

This course is designed to develop graduates who are able to:

- Apply complex concepts around cybersecurity techniques, standards and methodologies in both technical and management contexts in addressing multidimensional problems currently faced in related industries.
- Contribute a wide range of technical and research skills as part of a multispecialty group in order to fulfil collaborative efforts on optimal solutions and innovative approaches to evolving threat landscapes.
- Learn and adapt to new techniques and methodologies with the ability to strongly influence decision making towards cost effective and efficient deployments in the areas of cybersecurity; and apply key regulatory and legal requirements in the context of cybersecurity and its sub-products.

Higher Education Achievement Report - Additional Information

Students will have the opportunity to meet industry guest speakers and leading authorities in the area of cybersecurity as part of their extra curricula activities. The opportunity to participate in small scale projects hosted by both the academic and industry panels in the form of innovation vouchers will also be investigated where possible in accordance to the mode of delivery. Several opportunities might also arise for voluntary work in given research activities or laboratory exercises. Peer assisted learning (PAL) could also be accounted as optional activity that students may use to enrich their profile as part of HEAR and cross-fertilise ideas with their peers. Strong encouragement and support will be given to all students who manifest potential for research excellence and capacity to publish high quality work in the area of cyber security.

Learning and Teaching

The learning experience will be natured around lectures, seminars and laboratory (practical hands-on) sessions in a strong blended learning approach. A classroom and/or instructor-based training will be utilised through the use of problem-based learning and case studies that has been found to be suitable for this mode of delivery where large amount of material must be presented to a small or large group of participants. Practical hands-on sessions will be delivered through the use of virtualisation tools with a variety of platforms tested for the technical units taught in the course. Staff will also help students to develop skills so that they can adapt to a wide variety of different situations with a harmonised and balanced assessment strategy seeking to enhance independent thinking. Strong emphasis will also be placed on research-informed teaching that influence the nature of the final project in this programme. The teaching team consists of active researchers in different domains in cybersecurity with extensive industrial certifications and experience. Discussion forums will be utilised throughout the provision to cross-fertilise ideas, communication and knowledge outside face-to-face delivery. Online tools will be used by tutors and students to communicate feedback and reinforce learning activities. All students are required to sign an ethical agreement prior to engaging in any form of hands-on work as part of the programme.

Students will be able to enrol to a short course instead on either of the 30 credit units offered in the course outline. This enhances flexibility in both the delivery and ability to undertake CPD courses without pursuing the full MSc accreditation. This opens the current programme to a wide range of audiences, companies and organisations where skilling up their personnel in cybersecurity areas through CPD is more relevant than a full postgraduate programme.

Access to both the CST labs and library is available over the weekend for students to conduct their lecture, practical and tutorial sessions. No additional provision with the exception of a demonstrator is needed as the scheduled delivery fits both availability and timetable. Both the library and CST labs and facilities are fully operational and available to students for the period of time in which delivery is scheduled. All other

University services are available online 24/7. Direct access to student support services is available also during week days.

Developing your employability

The Careers Service is there to support you throughout the duration of your study and beyond. The curriculum gives you skills that are valuable for a career within Information Security but it is also relevant for a much wider range of applications. The diverse skillset around management of security as delivered in the course will equip you with a meaningful GRC knowledge and relevant experience to excel your career prospects. This is quite prominent due to the problem recruiters have to get hold of security managers with these skills. The systematic application of teaching and learning methods with the GIS goals and clear references made to the University's employability framework should further help students to develop their career prospects throughout the programme. Interactive sessions in the form of demos will also be delivered by the teaching staff and guest speakers to further leverage understanding and stimulate attention towards relevant and pragmatic issues in the area.

The unit 'Research Methodologies and Project Management' in particular requires you to work in a team so as to apply a current project management methodology that embraces all of these knowledge areas in an integrated way while going through the stages of planning, execution and project control; you will work as part of a team, take responsibility and make autonomous decisions that impact on the project team performance.

In addition and somewhat complementary the final project fosters independent and autonomous study: typically derived from your own ideas, in collaboration with a dedicated member of the teaching staff as project supervisor. That gives the ability to initiate discussion and project ideas that enrich the academic context in your studies and provide the foundations for a solid, relevant and strong project delivered at the end of your course.

Department (s)

Computer Science and Technology

<http://www.beds.ac.uk/howtoapply/departments/computing>

Assessment

The assessment strategy used is predominantly written assessments with only two (2) formal invigilated examinations throughout the course. The method used will depend on the nature of the subject matter being taught in each of the units, where the most appropriate method is chosen and analysed (See UIFs). Students will also have the opportunity to engage into formative assessment throughout the course, especially during exercises in the practical sessions where feedback on progress and performance will be given by their tutors for each of the tasks allocated. The assessment strategy for this course is designed around a holistic evaluation on knowledge and skills acquired with strong emphasis on the requirements for this mode of delivery and diverse skills, background and expectations of the target audience. All assessments used in the course are in perfect alignment with University requirements, regulations and policies. Coursework assignments typically incorporate formative feedback so that students can gain an insight into whether their work is meeting the necessary thresholds and focus on meaningful remarks to improve both their performance and understanding in the subject matter. The assessment strategy has been designed with strong influence by the requirements and needs of the audience in PT mode of delivery for this course.

After Graduation

On completing this course you are likely to progress into the following areas:

- Security associates
- Security analysts
- Incident responders
- System and network administrators
- Information security and risk practitioners/consultants
- Penetration testers
- Information Systems managers
- Security architects
- Intrusion analysts
- Disaster Recovery/Business Continuity Analyst/Manager

- Security Auditor
- Security auditors

Further study:

Opportunities exist for further postgraduate study (e.g. MSc by Research) or students can also continue onto PhDs which can lead to a career in higher education.

Student Support during the course

Students will have access to both departmental and university-wide support during their studies. Students will have access to a personal tutor and may book appointments at any point during the academic year. The University will further provide support via the Student Union and the Counselling Service. The administration team within the CST Department is also available to only Computing students with core responsibility for support on all academic aspect and issues for the duration of the course. Access to the Internet and course-relevant software is provided through the departmental facilities.

Students may be required, at the discretion of the Course Co-ordinator, to undergo diagnostic testing for academic English language abilities, and may further be required, at the Course Co-ordinator's discretion, to participate in academic English support workshops or classes laid on by the University. As this course runs in weekends in block-mode, academic provision and support will also be offered during this time from academic staff involved in the delivery.

At institutional level, the university has in place a range of easily accessible support structures for new and existing students.

The Student Information Desk (SID, <http://www.beds.ac.uk/student-experience2/studying-at-bedfordshire/student-services/sid>) offers confidential advice on all aspects of academic study. It provides information about other areas of university-wide student support such as extenuating circumstances, housing, health, counselling, study support, special needs and disability advice, and careers service. The Study Hub (<http://lrweb.beds.ac.uk/studyhub>) provides workshops and one to one support for academic skills.

The university chaplaincy runs regular meetings, social events and trips. The Student Union (<http://www.beds.ac.uk/student-experience2/community-at-bedfordshire/bedssu> or <http://www.bedssu.co.uk/>) provides additional support and activities.

Course specific support is also in place. Newly enrolled students on the course will receive a comprehensive induction in the week prior to the commencement of the academic year. In addition to this, the course co-ordinator or his/her representative will meet you to explain the course structure and other issues relating to your experience at the university. These introductions will give you outlines of your course and units, a description of the ways you will be encouraged to develop your knowledge and skills, and signpost resources and materials to assist the process of your learning and success. An important part of this induction is the training to use BREO (<https://breo.beds.ac.uk/>), your personalized virtual learning environment that contains lecture notes, links for online assignment submissions, staff contact details, links to central student services and much more. We expect that you use BREO regularly, and that you use your university email where we send you updates about all aspects of your course which need your attention.

You will be allocated a personal tutor when you join the course. This academic will be responsible of monitoring your academic progress throughout the course, and will help you with any academic or personal issues that might come up. The personal tutor is your consistent point of contact for support and guidance, but will on occasion refer you to other university staff for specific issues.

Further support is provided by lecturers who have office hours and by the course administration team. Due to the nature of the course and the delivery over weekends, support will be made available to students during week days and online by the unit tutors.

You may be required, at the discretion of the course coordinator, to undergo diagnostic testing for academic English language abilities, and may further be required, at the course coordinator's discretion, to participate in academic English support workshops or classes laid on by the University.

Accessibility and Key Features

This course makes intensive use of computing equipment (desktop or laptop computers) and so if you have difficulty accessing these you should discuss this with the Disability Advice Team in conjunction with the

course team at the outset to ensure that appropriate support is in place.

The University of Bedfordshire is committed to ensuring that curricula across all courses are inclusive to all students. The Disability Advice Team which is associated with the Student Information Desk is available to discuss any issues students may have and can provide services such as dedicated accessibility software, sign language interpreters, note takers, dyslexia screening/tuition and support with mobility on campus. They offer confidential advice and information about academic and personal issues, adjustments in examinations, applying for the Disabled Students' Allowances (DSA) and buying suitable equipment. The Disability Advice Team communicates regularly with unit and course co-ordinators to ensure the needs of students are covered.

No particular educational barriers have been identified for students with disabilities.

More information can be found from the Disability Advice Team,
<http://www.beds.ac.uk/studentlife/current/disabilities>.

Assessment Map

Block 1

Unit Code		Weeks									
	C/O	6	7	8	9	10	11	12	13	14	15
CIS097-6	C	CW -CS								Ex	

Block 2

Unit Code		Weeks									
	C/O	6	7	8	9	10	11	12	13	14	15
CIS098-6						IT- PT			WR -I/ PR- viv a		

Block 3

Unit Code		Weeks									
	C/O	6	7	8	9	10	11	12	13	14	15
CIS102-6			Cw- ePort							Ex	

Block 4

Unit Code		Weeks									
	C/O	6	7	8	9	10	11	12	13	14	15
CIS099-6											CW - Port

Block 5

Unit Code	C/O	Weeks																									
		6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
CIS106-6										WR -I																	PJ- Pro j

*This is the assessment mapping per unit in course for each 15 / 30-week delivery period for an indicative start in Oct

*There should be 90 credits delivered each AY

Section 3 - Academic Information

This section will be used as part of the approval and review process and **peer academics** are the target audience.

Course Learning Outcomes

Upon successful completion of this course, you should be able to:

LO1

Demonstrate critique and the ability to use synergistically modern technologies, techniques and methods in Cyber security to develop both technical and management solutions to cybersecurity threats.

LO2

Acquire and utilise deep and systematic technical expertise and knowledge in security implications, risk assessment methodologies and frameworks and regulatory and legal requirements and compliance within a cybersecurity context.

LO3

Undertake an analysis of complex scientific evidence and argumentation independently of current knowledge in the subject matter and apply this in a range of relevant contexts.

LO4

Flexibly and creatively apply knowledge and problem solving skills in order to undertake a series of activities related to confidentiality, integrity, possession, utility and availability aspects of security so as to provide innovative and cost effective solutions adhering to ethical dimensions of practice.

LO5

Demonstrate your transferable skills (oral and written communication and personal reflection) to analyse self and others actions in enabling a wide range of vocational outputs within an organisational context and adhere to legal, social and ethical frameworks.

LO6

Undertake a substantial independent piece of research work that tackles a complex problem in the area of Cyber Security, using incomplete information and demonstrating your ability to analyse, critically evaluate the scenario and utilize this to develop an appropriate solution.

Post graduate Certificate in Cyber Security:

In order to achieve a PG certificate in Cyber security you must meet course learning outcomes 1,2,4,5

Post graduate Diploma in Cyber Security:

In order to achieve a PG Diploma in Cyber Security you must meet course learning outcomes 1,2,3,4,5

Course-specific regulations

n/a

Teaching, Learning and Assessment

A wide variety of teaching modes will be used throughout this course. The most important aspect will be that of a student-centered approach, and the University will encourage you through relevant guidance to become an independent thinker who can take responsibility for their own learning, and who can adapt to a wide variety of different situations within the context of Cybersecurity.

The course will make use of traditional lectures and practical sessions as well as encouraging you to engage in various scenarios such as managing your own projects and achieving professional output through teamwork. Certain training methods related to interactive learning will be also deployed given the nature and background of the intended audience. Within this context, elements such as active summaries, role-playing and participant control are some of the additional methods to be used in order to engage and stimulate students.

You will be exposed to various types of professional software (both commercial and open source) tailored to

the needs of the individual units and specialist equipment.

Unit content such as lecture slides or practical sheets are made available electronically through the University's content management system.

Additional Academic Information

Peer-assisted learning (PAL)

Peer-assisted learning is provided within the course of study and it will be aligned with the PAL arrangements already used for the other postgraduate courses within Computer Science and Technology.

Initial Assessment

CIS097-6 Tactical and Strategic Cybersecurity Management

CIS102-6 Information Governance and Compliance

CIS099-6 Research Methodologies and Project Management (Staged submission)

Improving students' learning

Several units allow students to use work and feedback from the first assessment to perform best in the second.

All units benefit from weekly practical sessions or supervisor meetings that provide a constant learner-teacher interaction process which also serves to reflect on learning styles. The case studies and portfolio reports in CIS102-6 and CIS097-6 units will equip students with the necessary feedback and support to excel and improve further in consecutive assessment points.

Academic Integrity

While most of the interaction in the final project is one-to-one between student and supervisor there will be some dedicated lectures to the class on key issues such as referencing or utilising library resources.

The Academic Integrity Resource (AIR) will be deployed in all of the course's core units and is a resource that has been designed to make you aware of good academic practice. This includes an awareness of plagiarism and referencing processes, among many other things. Clear references in both assessment briefs and emphasis placed by the tutors will help students to articulate rules around academic quality, rigour and academic misconduct.

HEAR implementation

The Higher Education Achievement Report (HEAR) is intended as a formative document used with students during the course of their studies. Course teams have constant access to the transcript of students, results and progression through the SITS e-vision system, and in addition to this formal statistical outline of individual progress, students are encouraged to have regular meetings with their Personal Tutor to assist the reflective process in monitoring progress. Many students find it helpful to maintain a personal blog of their progress monitoring academic and skill development which can be developed within the University platforms such as BREO.

Internationalisation

Teaching and learning of the courses align with the University's policies of inclusion and internationalisation. Much of the content of project management is internationalised through the use of a number of internationally recognised project management techniques. Similarly, most – if not all – of the Networking, Security, and Computing materials are non-country specific, so skills taught to the students here are international by their very nature.

Sustainability

Throughout the course we will embed aspects of professionalism (ethics, professional conduct etc.) into the different units. The two most poignant examples are the Research methodologies and Project Management unit (CIS0\$\$\$-6) and the MSc Project. These two units provide an excellent opportunity for you to develop your professional skills by engaging in professional tasks (e.g. managing your own projects, and working as part of a team).

Section 4 - Administrative Information

This section will be used as part of the approval and review process and peer academics are the target audience.

Faculty	Creative Arts Technologies and Science
Portfolio	Postgraduate Computer Science and Technology
Department/School/Division	Computer Science and Technology
Course Coordinator	Dr Gregory Epiphaniou
Version Number	1/16
Approved by (cf Quality Handbook ch.2)	University Approval Panel
Date of approval (dd/mm/yyyy)	31/05/2016
Implementation start-date of this version (plus any identified end-date)	2016/17

Form completed by:

Name: ...Dr Gregory Epiphaniou... Date: 15 Mar 2016.....

Authorisation on behalf of the Faculty Teaching Quality and Standards Committee (FTQSC)

Chair: Date:

Course Updates		
Date (dd/mm/yyyy)	Nature of Update	FTQSC Minute Ref:



Annexes to the Course Information Form

*These annexes will be used as part of the approval and review process and **peer academics** are the target audience.*

General course information

Course Title	Cyber Security
Qualification	MSc
Route Code (SITS)	TBC
Faculty	Creative Arts Technologies and Science
Department/School/Division	Computer Science and Technology
Version Number	1/16

Annex B: Named exit or target intermediate qualifications

This annex should be used when departments wish to offer intermediate qualifications which sit under the main course qualification as named exit or target awards, rather than unnamed exit/default awards.

Section 1: General course information

Intermediate Qualification(s) and titles	PGCert Cyber Security PGDip Cyber Security
Mode(s) of Study and Duration	Part-Time block Mode (PTB)
Type of Intermediate Qualification(s)	PGCert Cyber Security - Named exit and target PGDip – Exit Only
Route Code(s) (SITS) of Intermediate Qualification(s)	<i>TBC</i>

Section 2: Qualification unit diet

One table to be used for each intermediate qualification

Confirmation of unit diet for:	<i>PGCert Cyber Security</i>	
The units to achieve the credits required may be taken from any on the overall diet for the main course qualification		<input type="checkbox"/>
A combination of units from a restricted list must be taken to achieve the credits required (specify the list below)		<input type="checkbox"/>
A specific set of units must be taken to achieve the credits required (specify units below)		<input checked="" type="checkbox"/>

<p>List of units (if applicable):-</p> <p>CIS097-6 Tactical and Strategic Cybersecurity Management</p> <p>CIS098-6 Cyber Defence</p>
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Confirmation of unit diet for:	<i>PGDip Cyber Security</i>	
The units to achieve the credits required may be taken from any on the overall diet for the main course qualification		<input type="checkbox"/>
A combination of units from a restricted list must be taken to achieve the credits required (specify the list below)		<input type="checkbox"/>
A specific set of units must be taken to achieve the credits required (specify units below)		<input checked="" type="checkbox"/>

<p>List of units (if applicable):-</p> <p>CIS097-6 Tactical and Strategic Cybersecurity Management</p> <p>CIS098-6 Cyber Defence</p> <p>CIS102-9 Information Governance and Compliance</p> <p>CIS099-6 Research Methodologies and Project Management</p>
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Section 3: Course structure and learning outcomes

One table to be used for each intermediate qualification

Intermediate qualification and title					PGCert Cyber Security									
The Units which make up this course are:					Contributing towards the learning outcomes <i>Insert LO1 and/or LO2 for each unit into cell corresponding to the course learning outcome</i>									
Unit Code	Level	Credits	Unit Name	Core or option	1	2	3	4	5	6	7	8	9	10
CIS097-6	7	30	Tactical and Strategic cybersecurity Management	Core	LO1	LO2								
CIS098-6	7	30	Cyber Defence	Core		LO2		LO1	LO2					

Intermediate qualification and title					PGDip Cyber Security									
The Units which make up this course are:					Contributing towards the learning outcomes <i>Insert LO1 and/or LO2 for each unit into cell corresponding to the course learning outcome</i>									
Unit Code	Level	Credits	Unit Name	Core or option	1	2	3	4	5	6	7	8	9	10
CIS097-6	7	30	Tactical and Strategic cybersecurity Management	Core	LO1	LO2								
CIS098-6	7	30	Cyber Defence	Core		LO2		LO1	LO2					
CIS102-6	7	30	Information Governance and Compliance	Core	LO1	LO2								
CIS099-6	7	30	Research Methodologies and Project Management	Core			LO1	LO2						

Annex C: Course mapping to FHEQ level descriptor, subject benchmark(s) and professional body or other external reference points

One set of mapping tables to be produced for the course and each named intermediate qualification

Course (or intermediate) qualification and title	MSc Cyber Security
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FHEQ Descriptor for a higher education qualification	<i>QAA Level Descriptor Mapping Level 7</i>	Course Learning Outcome(s)								
		1	2	3	4	5	6	7	8	9
A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study, or area of professional practice			x							
A comprehensive understanding of techniques applicable to their own research or advanced scholarship		x	x				x			
Originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline				x			x			
Conceptual understanding that enables the student: <ul style="list-style-type: none"> to evaluate critically current research and advanced scholarship in the discipline; and to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses. 		x			x	x				
Deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences				x			x			
Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level					x		x			
Continue to advance their knowledge and understanding, and to develop new skills to a high level							x			
the qualities and transferable skills necessary for employment requiring: <ul style="list-style-type: none"> the exercise of initiative and personal responsibility; decision-making in complex and unpredictable situations; and the independent learning ability required for continuing professional development.						x				

Subject Benchmark Statement(s)	<i>QAA Subject Benchmark Statement Mapping Computing 2016</i>	Evidence and/or Course Learning Outcome(s)
A systematic understanding of the knowledge of the domain of their programme of study, with depth being achieved in particular areas, including both foundations and issues at the forefront of the		LO1, LO2

discipline and/or professional practice in the discipline; this should include an understanding of the role of these in contributing to the effective design, implementation and usability of relevant computer-based systems	
A comprehensive understanding, and a critical awareness of: the essential principles and practices of the domain of the programme of study as well as current research and/or advanced scholarship; current standards, processes, principles of quality and the most appropriate software technologies to support the specialism; the relevance of these to the discipline and/or professional practice in the discipline; and an ability to apply these.	LO1,LO2
Consistently produced work which applies to and is informed by research and/or practice at the forefront of the developments in the domain of the programme of study; this should demonstrate critical evaluation of aspects of the domain, including appropriate software support, the ability to recognise opportunities for software or hardware tool use as well as possible tool improvement, an understanding of the importance of usability and effectiveness in computer systems development, and generally the acquisition of well-developed concepts.	LO4, LO6
Understanding of the professional, legal, social and ethical framework within which they would have to operate as professionals in their area of study; this includes being familiar with and being able to explain significant applications associated with their programme of study and being able to undertake continuing professional development as a self-directed lifelong learner across the elements of the discipline.	LO5, LO1
The ability to apply the principles and practices of the particular programme's domain in tackling a significant domain related activity; the solution should demonstrate a sound justification for the approach adopted as well as originality (including exploration and investigation) and a self-critical evaluation of effectiveness but also critical awareness of current problems and new insights, and a sense of vision about the direction of developments in aspects of the domain of the programme.	LO3, LO6

The format of the following mapping tables may be adjusted.

Qualification Characteristic	<i>(insert title and year where appropriate)</i>	Evidence
		<i>How the course takes account of relevant qualification characteristics documents</i>
<u>Programmes in the specialist or advanced study category often have the following characteristics:</u> they are predominantly composed of structured learning opportunities (are 'taught') although frequently at least a third of the programme is devoted to a research project, leading to a thesis or the production of other output such as an artefact, performance or musical composition		QAA Characteristics Statements – Master's Degree Sep 2015 In alignment with the delivery structure of the course
they range from nine to 24 months' duration, with 12 months being most common, based on a full-time mode of study		In alignment with the delivery structure of the course

Annex D: Equality Impact Assessments of Courses and Units

Introduction

As a widening participation institution, equality and diversity considerations are important in all aspects of our approach to teaching and learning. They are a theme within CRe8, embedded in our approach to teaching (in the minimum teaching expectations) and feature in staff induction and development. This annex sets out expectations in relation to the approval of courses and units and the need to undertake appropriate Equality Impact Assessments (EIA).

Equality Impact Assessments

The following apply.

- All courses and all units should have an associated EIA (see forms below).
- EIAs may cover multiple courses but individual EIAs are required for each unit.
- EIAs will be undertaken as courses come forward for approval or review (there is no requirement to go back and undertake more detailed EIAs, in line with this policy, than was previously required).

Further guidance

Guidance from the Equalities Challenge Unit (ECU) available at <http://www.ecu.ac.uk/publications/disability-legislation-practical-guidance-for-academic-staff-revised/>
Equality and Human Rights Commission: Guidance for providers of further and higher education www.equalityhumanrights.com/advice-and-guidance/further-and-higher-educationproviders-guidance
Equality Challenge Unit (2010) Disability legislation: practical guidance for academic staff (revised) www.ecu.ac.uk/publications/disability-legislation-practical-guidancefor-academic-staff-revised
Higher Education Academy (2010) Inclusive Learning and Teaching in Higher Education www.heacademy.ac.uk/resources/detail/inclusion/LTsummit_final_report
Higher Education Academy and Equality Challenge Unit: Ethnicity, Gender and Degree Attainment www.heacademy.ac.uk/resources/detail/inclusion/Ethnicity/ethnicity
Higher Education Academy and UK Council for International Student Affairs: Inclusive assessment in Higher Education a Resource for change available at <http://www1.plymouth.ac.uk/disability/Documents/Space%20toolkit.pdf>
JISC TechDis: Teaching Inclusively Using Technology www.jisctechdis.ac.uk/pages/detail/online_resources/Teaching_Inclusively_Using_Technology
Teachability project: Creating accessible information about courses or programmes of study for disabled students www.teachability.strath.ac.uk/chapter_1/tableofcontents1.html
Teaching International Students Project www.heacademy.ac.uk/teaching-international-students

Course Equality Impact Assessment		
Course Title	MSc Cyber Security	
Question	Y/N	Anticipatory adjustments/actions
1. Will the promotion of the course be open and inclusive in terms of language, images and location?	Y	Communication with the marketing department and relevant University services will be maintain to assure full visibility of the course diet, structure and delivery
2. Are there any aspects of the curriculum that might present difficulties for disabled students? For example, skills and practical tests, use of equipment, use of e-learning, placements, field trips etc. If so then: (a) have these been flagged on the CIF so that potential students are aware, and (b) have anticipatory adjustments and arrangements been put in place.	N	Measures are in place to support students with disabilities. Both the curriculum and delivery/assessment strategy adopted should not impose additional difficulties to students with disabilities
3. Are there any elements of the content of the course that might have an adverse impact on any of the other groups with protected characteristics ¹ ? If so then: (a) have these been flagged on the CIF so that potential students are aware, and (b) have anticipatory adjustments and arrangements been put in place	N	n/a
4. If the admission process involves interviews, performances or portfolios indicate how you demonstrate fairness and avoid practices that could lead to unlawful discrimination?	Y	An interview process will be utilised to verify suitability for the course for candidates with non-standard academic backgrounds but with demonstrable industry experience in the field.
5. Are the course learning outcomes and Graduate Impact Statements framed in a non-discriminatory way?	Y	Extra precautions have been taken to assure that both course and units' learning outcomes are framed in non-discriminatory way
6. Does the course handbook make appropriate reference to the support of disabled students?	Y	See Section 2.11 in the Course Handbook

¹ Age, Gender reassignment, Marriage and civil partnership, Pregnancy and maternity, Race, Religion and belief, Sex, Sexual orientation.