



LEEDS
BECKETT
UNIVERSITY

Course Specification

**MSc Computer
Security**

Course Code:MCSEC

2020/21

leedsbeckett.ac.uk

MSc Computer Security

Material Information Summary for Postgraduate Applicants

Confirmed at June 2019

General Information

Award	<i>Master of Science Computer Security.</i>
Contained Awards	<i>Post Graduate Certificate Computer Security</i> Post Graduate Diploma Computer Security
Awarding Body	Leeds Beckett University
Level of Qualification & Credits	Level 7 of the Framework for Higher Education Qualifications, with 180 credit points at Level 7 of the Higher Education Credit Framework for England
Course Lengths & Standard	
Timescales	Start dates will be notified to students c via their offer letter. The length and mode of delivery of the course is confirmed below:
<i>The format is:</i>	<ul style="list-style-type: none">• 3 year (part time, distance learning based)
Location(s) of Delivery	Distance Learning, no onsite delivery
Entry Requirements	Admissions criteria are confirmed in your offer letter. Details of how the University recognises prior learning and supports

credit transfer are located here:
www.leedsbeckett.ac.uk/studenthub/recognition-of-prior-learning.

Admissions enquiries may be directed to:

AdmissionsEnquiries@leedsbeckett.ac.uk.

Course Fees

Course fees and any additional course costs are confirmed in your offer letter. Fees enquiries may be directed to:
Fees@leedsbeckett.ac.uk.

Timetable Information

Timetables will be made available to students during induction week via:

- i) The Student Outlook Calendar
- ii) The Student Portal (MyBeckett)
- iii) The Leeds Beckett app

Any difficulties relating to timetabled sessions may be discussed with your Course Administrator.

Policies, Standards and Regulations www.leedsbeckett.ac.uk/public-information

There are no additional or non-standard regulations which relate to your course.

Key Contacts

Your Course Director	Emlyn Butterfield
Your Academic Advisor	To be confirmed during induction
Your Course Administrator	Helen Turpin, h.turpin@leedsbeckett.ac.uk

Professional Accreditation or Recognition Associated with the Course

Professional Body: Not applicable

Accreditation/ Recognition Summary: Not applicabile

Course Overview

This course aims to develop students to be able to implement Computer Security mechanisms into any business they obtain employment with, including entering the Computer Security profession. The course is intended for students who already have an IT background, from either a professional or academic route. It is not intended to be a course for experienced practitioners or students in Computer Security.

Aims

The aims of the programme are to:

- To provide opportunities for graduates with an honours degrees in computing (or equivalent qualifications) to pursue advanced study in the field of Computer Security and develop general skills appropriate to the holder of a Masters level award.
- To produce individuals who have a critical and balanced appreciation of the practical and theoretical issues associated with Computer Security.
- To develop individuals who are equipped with the skills and knowledge to devise, develop, manage, and implement Computer Security methodologies.
- To provide a forum for the exchange and critical analysis of information relating to the field of Computer Security, thereby developing the experience and skills of the students themselves and contributing to the body of knowledge in relation to the cognate area of Computer Security.

Course Learning Outcomes

At the end of the course, students will be able to:

MSc Computer Security

1	Ability to deal with complex problems and demonstrate critical evaluation of theoretical and practical issues associated with the implementation and testing of Computer Security methods and justify these based on ethical and legal requirements.
2	Demonstrate a critical analysis of current issues and new technologies within the field of Computer Security.
3	Demonstrate originality in the application of knowledge and techniques to create and interpret knowledge in the area of Computer Security
4	Demonstrate originality and synthesis in the application of theory and techniques, drawn from earlier studies, through the production of the dissertation/project, a significant piece of high level independent work.
	These learning outcomes of the programme align well with the QAA Subject Knowledge and Understanding (section 5) for a masters in Computing https://www.qaa.ac.uk/docs/qaa/subject-benchmark-

	statements/sbs-masters-degree-computing.pdf and Descriptor for a higher education qualification at level 7 on the FHEQ https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf
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PGDip Computer Security

1	Ability to deal with complex problems and demonstrate critical evaluation of theoretical and practical issues associated with the implementation and testing of Computer Security methods and justify these based on ethical and legal requirements.
2	Demonstrate a critical analysis of current issues and new technologies within the field of Computer Security.
3	Demonstrate originality in the application of knowledge and techniques to create and interpret knowledge in the area of Computer Security
	These learning outcomes of the programme align well with the QAA Subject Knowledge and Understanding (section 5) for a masters in Computing https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/sbs-masters-degree-computing.pdf and Descriptor for a higher education qualification at level 7 on the FHEQ https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf

PGCert Computer Security

1	Ability to deal with complex problems and demonstrate critical evaluation of theoretical and practical issues associated with the implementation and testing of Computer Security methods and justify these based on ethical and legal requirements.
2	Demonstrate a critical analysis of current issues and new technologies within the field of Computer Security.
	These learning outcomes of the programme align well with the QAA Subject Knowledge and Understanding (section 5) for a masters in Computing https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/sbs-masters-degree-computing.pdf and Descriptor for a higher education qualification at level 7 on the FHEQ https://www.qaa.ac.uk/docs/qaa/quality-code/qualifications-frameworks.pdf

Teaching and Learning Activities

Summary

Extensive use is made of the VLE and both synchronous and asynchronous conferencing tools. Other tools, such as Turnitin drop boxes are embedded into the VLE for the submission of coursework.

The VLE is the primary tool for delivering the study material with extensive links to other sites. The VLE is also the primary tool for submitting assessments – via Turnitin. The VLE provides internal links to self-assessment activities, mainly quizzes, to enable students to check their own progress.

The VLE also provides a link to other tools such as the discussion board, and to external discussion tools such as Slack, which hosts a number of debates in which students are encouraged to participate.

The VLE will be used to post announcements and email students. All work will be placed here so that students will be able to access any resources made available. However, other resources such as Slack, will be used for instant individual and group communication.

Clearly a distance learning course is different in nature to a traditional face-to-face delivery. Whilst traditional lectures will not be utilised, recorded short lectures are recorded and utilised to cover relevant material. Lab and guidance documents will be created utilising clear guidance utilised screen shots and audio where possible to ensure students comprehension.

Learning and teaching methods will provide high quality learning opportunities that enable students to demonstrate achievement of the learning outcomes of the course. In particular these focus upon professional practice and practical problem based assessments. Students will be given the opportunity to demonstrate their learning through a variety of mechanisms including reports and practical undertakings.

The course utilises professional tools and guidelines from industry and professional bodies to inform the teaching methodologies and resources of the award. To enable students to fully utilise these methodologies, the award is structured to develop the students understanding of the key concepts of theory and practical process. The building of this knowledge and feedback for assessments undertaken by students allows the building of a greater understanding of the subject area.

The course aims to foster the development of independent study skills and autonomy of learning and encourage a commitment to lifelong learning and continuous professional development. Teaching and learning methods increasingly promote the capacity for students to assume responsibility for their own learning and development. Progressive use of project based integrated assessment and product/problem based learning allow students to take on greater self-direction of their learning.

Students must also develop subject specific skills that are marketable in the short to medium term as well as more general skills that will facilitate their future development and continuous learning. The course supports the latter through identification of appropriate skill sets and these are developed through the programme of study and assessment methods. In particular emphasis is placed on a student's ability to critically analyse the subject area and their ability to effectively communicate their understanding of the process.

The course employs a wide range of learning opportunities and teaching methods, informed by curriculum review, pedagogic research, and continuous staff development. Innovative approaches to teaching, learning and assessment are encouraged. The course seeks to expand the application of technology in the delivery of teaching and learning support.

Scheduled sessions will include the use of lectures, lab exercises and discussion groups, and advantage will be taken of both technology and supportive activities to ensure that effective learning takes place. These activities will include the use of simulations, role-play, case studies, projects, practical work, work based learning, workshops, peer tutoring, peer group interaction, self-managed teams and learner managed learning.

The learning and teaching methods used are identified in the descriptor for each of the modules. The contextualisation of the learning and teaching strategy of each award is the sum of the learning and teaching methods of the modules that constitute the programme of study towards that award. These methods will promote the broad learning strategy of the University and the School, which are under constant review and refreshment. This is tested at least annually for fitness for purpose and integrity of the student learning experience for the award.

The course will be delivered as a web based distance learning course. There is limited opportunity therefore to engage in traditional face to face teaching activity. However, every opportunity will be taken to utilise innovative distance learning material to simulate the 'classroom' experience as much as possible. To this end, full use of a VLE will be made for each module to make the web based material fully interactive. The VLE contains a variety of:

- Specific course reading material
- Additional directed reading
- Problem solving exercises
- Reflective learning techniques
- Computer-assisted learning (self-assessment tests)

The variety of exercises allows for a range of learning preferences. Students will be encouraged both online and on the VLE to ask questions and are given clear indications in the VLE how to contact the module leader. They will also be encouraged to post their questions to a Discussion Board on the VLE, or similar systems, so that all may benefit from the question and the reply.

The type and range of assessments have been designed to require students to think deeply about practical scenarios and to evaluate problems and prescribe solutions appropriate to a professional practitioner.

If further staff contact is required outside of the normal teaching schedule then the identification of availability and contact details are displayed on the VLE: including appropriate methods of contact. Typically appointments will be arranged via email, or instant messaging, to enable longer meetings. If appropriate, staff will schedule group conferencing with the cohort if a number of students require additional assistance on a certain topic.

Your Modules

This information is correct for students progressing through the programme within standard timescales. Students who are required to undertake repeat study may be taught alternate modules which meet the overall course learning outcomes. Details of module delivery will be provided in your timetable.

Level 7 Core Modules

Offensive Security and Penetration Testing - Distance Learning

Systems and Infrastructure Security - Distance Learning

Incident Response and Investigation - Distance Learning

Web and Network Security - Distance Learning

Project Management – Distance Learning

Research Practice

Dissertation

Assessment Balance and Scheduled Learning and Teaching Activities

The assessment balance and overall workload associated with this course are calculated from core modules and typical option module choices undertaken by students on the course. They have been reviewed and confirmed as representative by the Course Director but applicants should note that the specific option choices students make may influence both assessment and workload balance.

A standard module equates to 200 notional learning hours, which may be comprised of teaching, learning and assessment, any embedded placement activities and independent study. Modules may have more than one component of assessment.

Assessment

On this course students will be assessed predominantly by coursework, with a focus on practical skills development, with some supervised tests. There is a major independent study module which will require the production of a dissertation.

Workload

The number of hours of workload generally equates to 1800 for Master's programmes, 1200 for PG Diplomas and 600 for PGCerts, corresponding to the national standard of 10 notional hours of learning for each UK HE credit point.

Overall Workload for the Course	
Teaching, Learning and Assessment	216 hours
Independent Study	1,584 hours

Learning Support

If you have a question or a problem relating to your course, your Course Administrator is there to help you. Course Administrators work closely with academic staff and can make referrals to teaching staff or to specialist professional services as appropriate. They can give you a confirmation of attendance letter, and a transcript. You may also like to contact your Course Rep or the Students' Union Advice team for additional support with course-related questions.

If you have any questions about life at our University in general, call into or contact the Student Hub on either campus to speak to our Student Experience Team. This team, consisting of recent graduates and permanent staff, are available to support you throughout your time here. They will make sure you have access to and are aware of the support, specialist services, and opportunities our University provides. There is a Student Hub on the ground floor of the Rose Bowl at City Campus and one in Campus Central at Headingley. You can also find the team in the Gateway in the Leslie Silver Building at City Campus. Email enquiries may be directed to studentexperience@leedsbeckett.ac.uk.

Within MyBeckett you will see two tabs (Support and Opportunities) where you can find online information and resources for yourselves. The Support tab gives you access to details of services available to give you academic and personal support. These include Library Services, the Students' Union, Money advice, Disability advice and support, Wellbeing,

International Student Services and Accommodation. There is also an A-Z of Support Services, and access to online appointments/registration.

The Opportunities tab is the place to explore the options you have for jobs, work placements, volunteering, and a wide range of other opportunities. For example, you can find out here how to get help with your CV, prepare for an interview, get a part-time job or voluntary role, take part in an international project, or join societies closer to home.