Programme specification

*(Notes on how to complete this template are provided in Annexe 3)*

1. Overview/ factual information

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| **Programme/award title(s)** | FdSc Cyber Security |
| **Teaching Institution** | South West College |
| **Awarding Institution** | The Open University (OU) |
| **Date of first OU validation** | September 2020 |
| **Date of latest OU (re)validation** | N/A |
| **Next revalidation** | March 2025 |
| **Credit points for the award** | 240 |
| **UCAS Code** | N/A |
| **HECoS Code** | TBC |
| **LDCS Code (FE Colleges)** | TBC |
| **Programme start date and cycle of starts if appropriate.** | September 2020 |
| **Underpinning QAA subject benchmark(s)** | Computing October 2019 |
| **Other external and internal reference points used to inform programme outcomes.**  **For apprenticeships, the standard or framework against which it will be delivered.** | * Draft Programme for Government 2016-2021; * Government Industrial Strategy – Economy 2030; * South West College Development Plan; * QAA UK Quality Code for Higher Education, Part A; * Feedback from industry (Industrial Advisory Board) and student focus groups; * Northern Ireland Skills Barometer 2019 * Professional Certifications: CompTia, Microsoft, & EC Council * Benchmarks: <https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-computing.pdf?sfvrsn=ef2c881_10> |
| **Professional/statutory recognition** | N/A |
| **For apprenticeships fully or partially integrated Assessment.** | N/A |
| **Mode(s) of Study (PT, FT, DL,**  **Mix of DL & Face-to-Face)**  **Apprenticeship** | Full Time and Part Time. Mix of DL & Face-to-Face. |
| **Duration of the programme for each mode of study** | Full Time (2 Years 2 Semesters Per Year) and Part Time (2 Years 3 Semesters Per Year (Includes Summer Semester June to August in Year 1 and 2). Mix of DL & Face-to-Face.  Semester 1: September to January. Semester 2 January to May, Semester 3 June to August. |
| **Dual accreditation (if applicable)** | N/A |
| **Date of production/revision of this specification** | January 2020 |

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| **Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.**  **More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in student module guide(s) and the student’s handbook.**  **The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.** |
| 2.1 Educational aims and objectives |
| The course aims to educate future professionals in cyber security/computing. The course team is dedicated to educating students to develop their personal and intellectual skills and instil a sense of professional development and lifelong learning in the cyber security/computing industry. The course aims to provide a broad based education in the computing subject that prepares graduates who are equipped either to follow a productive career as professionals in the computing industry or to proceed to a higher academic qualification. In particular, the course seeks to:  **FdSc Cyber Security**   * Equip students with a knowledge and understanding of the theory and principles underlying modern cyber security. * Enable students to use, compare, analyse and evaluate a range of techniques, theories and methods applied to the development of applications and solutions. * Develop students’ abilities in the evaluation, selection, application and integration of a range of tools and facilities. * Develop students’ ability to carry out a programme of supervised work within a team. * Instil in students an understanding of good practice within the professional and ethical framework of computing and the need for continuing professional development. * Develop students in a range of key skills, personal qualities and attitudes essential for successful performance in working life.   **CertHE in Cyber Security**   * Equip students with a knowledge and understanding of modern computing applications and systems. * Enable students to develop computing applications. * Develop students’ abilities in the selection of a range of computing tools. * Develop students’ ability to carry out work within a team. * Instil in students an understanding of good practice. |

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| 2.2 Relationship to other programmes and awards  (Where the award is part of a hierarchy of awards/programmes, this section describes the articulation between them, opportunities for progression upon completion of the programme, and arrangements for bridging modules or induction) |
| The college offers the following FE Courses that on successful completion students may progress to the new FdSc Cyber Security or to the existing FdSc Computing.  Pearson BTEC Level 3 National Diploma in Information Technology;  Pearson BTEC Level 3 National Extended Diploma Information Technology;  Pearson BTEC Level 3 Diploma in Computing;  Pearson BTEC Level 3 Extended Diploma in Computing;  Access Diploma/Degree (General).  Other nearby colleges offer Level 3 OCR Qualifications and successful students will also be able to apply to the FdSc Cyber Security.  OCR Cambridge Technical Diploma in IT;  OCR Cambridge Technical Extended Diploma in IT.  SWC’s catchment area has a number of feeder secondary and grammar schools whose students progress to our FE and HE programmes of study. This course will attract a number of A Level applications from students who live within the catchment area as our students traditionally want to stay and study in their area. This is evidenced by our strong enrolment numbers.  Within this foundation degree programme there will be a number of awards in-built that a student will study and choose to further study and sit professional examinations. Upon successful completion of all Level 4 modules students will have achieved the Cert HE Exit Award. Upon successful completion of Level 4 and Level 5 modules (including Work Based Learning) a student will achieve the FdSc Cyber Security. On successful completion of all Level 3 and Level 5 (including the Project Management module) a student will achieve Higher Diploma (available for international students only).  Successful completion of FdSc Cyber Security, will allow for articulation to a number of undergraduate degree programmes through our local universities (Ulster University and Queen’s University Belfast) or to the proposed Open University Level 6 BSC Computing Science or to other universities.  The proposed course will allow students to progress from Level 2 to Level 6 within SWC and will ensure graduates are industry ready while being taught skills identified by our close strong industry links. |
| 2.3 For Foundation Degrees, please list where the 60 credit work-related learning takes place. For apprenticeships an articulation of how the work based learning and academic content are organised with the award. |
| N/A |

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| 2.4 List of all exit awards |
| Certificate of Higher Education (Cert HE) upon completion of all level 4 modules equal to 120 credit points of study.  FdSc Cyber Security upon completion of all Level 5 modules equal to 240 Credits of study. |

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| **3. Programme structure and learning outcomes**  ***(The structure for any part-time delivery should be presented separately in this section.)*** | | | | | | |
| **Programme Structure - LEVEL 4** | | | | | | |
| **Compulsory modules** | **Credit points** | **Optional modules** | **Credit points** | **Is module compensatable?** | **Semester runs in** | |
| Networking Fundamentals  Programming Essentials  Network Data Security  Cyber Security Fundamentals  Computing Mathematics  Ethical Hacking | 20  20  20  20  20  20 |  |  | Yes  Yes  Yes  Yes  Yes  Yes | FT  Y1 S1  Y1 S1  Y1 S2  Y1 S2  Y1 S1&2  Y1S1&2 | PT  Y1 S1  Y1 S3  Y1 S3  Y1 S2  Y1 S1&2  Y1S1&2 |

| **Programme Structure - LEVEL 5** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Compulsory modules** | **Credit points** | **Optional modules** | **Credit points** | **Is module compensatable?** | **Semester runs in** | |
| Mobile Devices & Cloud Security  Responsive Incident Management  Server Management and Security  Cyber Security Implementation  Work Based Learning or Project Management (Project Management for International Students Only) | 20  20  20  20  40 |  |  | Yes  Yes  Yes  Yes  Yes | FT  Y2 S1  Y2 S1  Y2 S1  Y2 S2  Y2 S2 | PT  Y2 S1  Y2 S1  Y2 S2  Y2 S2  Y2 S3 |

**Intended learning outcomes at Level 4 (Certificate in Higher Education) are listed below:**

| Learning Outcomes – LEVEL 4 | |
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| 3A. Knowledge and understanding | |
| Learning outcomes: | Learning and teaching strategy/ assessment methods |
| A1 Demonstrate an awareness of cyber security.  A2 Appreciate the practices of a range of networking hardware and operating systems.  A3 Apply and adopt appropriate practices relating to the professional, economic, social and legal ethical issues involved in cyber security.  A4 Demonstrate modelling and design of computer-based systems for various contexts.  A5 Design a secure networking solution. | Lectures will provide an overview of core module material, using examples and case studies as appropriate. Students will be encouraged to further investigate aspects of lectures in preparation for Tutorials. Tutorials will provide an opportunity for specific problem solving. Short, weekly exercises, using a variety of mediums will be used to provide frequent, informal formative feedback.  Tutorials will provide opportunities for students to present using a range of formats: written, oral or electronic. Students will be encouraged to work as individuals or in groups during practical exercises which will enable students to apply their knowledge of basic concepts. Students will be encouraged to research given problems and provide feedback on their findings. Students will be directed and guided to read selected papers and short articles by the Module Coordinators as appropriate.  Team Teaching: Team teaching of optional modules where a campus does not have enough students to teach independently. In this instance students will be taught from one campus using video streaming and supported by parallel teaching tutorials in each campus to develop skills.  Independent Study Supported by VLE/Course Notes: Students are invited to take part in independent learning through investigating written material or using the internet in the college Learning Resource Centre. In addition, collaborative learning and consulting with peers is encouraged as this leads to the exchange of ideas and effective problem solving. Teaching materials are developed and provided in electronic form for the course. South West College facilitates all students with remote login access to the college VLE to access all electronic materials and to take part in online discussions\forums and email.  Textbooks\eBooks: A core resource to supplement and support curriculum. Allows extension to learning outside and inside the classroom to assist, give direction, and facilitate research and independence to develop confidence of learning.  Flipped Learning: A pedagogical approach where learning is inverted so students are introduced to the learning material before the scheduled class. This method may incorporate many strategies (individual or group), for example, discussion with peers and problem solving activities to allow students to deepen their understanding of the topic.  Assessment materials may be marked using tutor or computer marked assignments (multiple choice, short answer, essay), interactive computer marked assignments, labs, formal examinations or progress tests or reports. |

| 3B. Cognitive skills | |
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| Learning outcomes: | Learning and teaching strategy/ assessment methods |
| B1 Design and implement computing security solutions to professionally agreed standards.  B2 Demonstrate computational thinking relating to everyday life.  B3 Analyse, evaluate and test a computer-based system solution that meets the defined criteria.  B4 Adopt professional practices relating to professional, legal, social, moral and ethical issues to cyber security. | Digital Literacy: Digital Literacy will be evident throughout modules through online reading materials, multimedia presentations, use of online resources and the internet for research, custom made learning materials such as videos\quizzes etc., bespoke software tutorials, use of communication tools, electronic plagiarism software and various types of content creation.  Lectures: Lectures are designed to engage the learner’s interest in a topic and provide a framework on which students can build their knowledge and understanding. Lectures provide summarised information from a range of sources, updating students with new developments and current issues.  Practicals: Practical work reinforces the material learned in training/lab /tutorials. This takes place in the IT rooms and hardware lab and aims to allow students to take control of specialised resources and equipment. Working under guidance and within the constraints of training, risk assessment and health, safety and well-being, students have ownership over the intended outcome making it more motivating and enjoyable. Experience learning where students are problem solving through solution finding and implementation while developing effective communication and use of terminology.  Project Based Learning: Student centered pedagogy where students will learn through the experience of solving an industry defined problem. This approach involves students working on a project over a period of time through engagement of a real world problem to find a solution to a complex problem. This approach enables students to develop their critical thinking, creativity and communication skills. PBL is used to create a contagious energy among students to develop a deeper understanding of the subject and quest for further knowledge and skills through active learning. |

| 3C. Practical and professional skills | |
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| Learning outcomes: | Learning and teaching strategy/ assessment methods |
| C1 Design and construct secure and usable computer-based systems.  C2 Apply best practice techniques for the development and documentation of cyber security systems.  C3 Communicate technical information to a range of audiences.  C4 Employ health and safety to adopt best professional practice when using cyber solutions.  C5 Develop effective solutions to practical problems as an individual or as a member of a team. | Simulations: Simulation through experiential learning where the learning material is presented with an instructional scenario through a game or role play where students work through tasks to solve problems.  Case Studies and Study Guides: Training by solving specific cases based on defined industry scenarios. This will allow the analysis of the problem to provide a solution and a justification of a solution.  Podcasts\Vodcasts: Subject related audio and video files created to support learning. Casts allow a student to take control of their own learning to learn more from supportive materials and to allow for flipping the classroom activities where a student becomes more engaged and ready for classroom learning. Resources can be used at times and from locations that suit the learner.  Practical Reports: These are used to assess students’ skills of technical writing of lab work. Students are provided with full and timely feedback.  Blended Learning Materials: Blended learning is integrated into modules where appropriate and all module materials are stored on the college VLE. This is a combination of face to face lectures, TEL tools, and practicals. The programme, in common with all programmes of Ulster University, aims to provide an inclusive and accessible teaching, learning and assessment environment for all participants. Blending learning materials have been created to deliver hardware and databases techniques and the mechanisms are in place for students to log in remotely from home to configure and practise hardware skills and knowledge.  Virtual Learning and Asynchronous VC Delivery: all students will be directed to virtual resources to enhance and support their learning experience and to offer additional learning opportunities. VC Delivery will be used to deliver teaching and learning to all campuses with local facilitators.  Individual Work: Students producing independent work where students get interested in a variety of information sources and practical experience through engagement and stimulation of learning. Students learn as an individual to study and develop independent thinking, problem solving, analysing, and evaluation and self-reflection skills.  Group Work: Collaborative group based work will be assessed by work submitted individually by each candidate, and may also include an element of assessment by tutor observation of each candidate’s contribution to the team and effectiveness as a team member while the team is working on the project. Action learning, where students develop their own way to a comprehensive solution, allows students to experience familiarity of working in a group through allocating roles, researching and presenting opinion and analysing and evaluating solutions. Embedding peer assessment and feedback through reflection. |

| 3D. Key/transferable skills | |
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| Learning outcomes: | Learning and teaching strategy/ assessment methods |
| D1 Learn in familiar and unfamiliar settings to develop a range of skills.  D2 Communicate effectively to audiences.  D3 Manage one’s own learning and professional development.  D4 Apply numeracy and understanding to different defined mathematical scenarios. | Workshops with Academic Mentors will support development of skills in research, academic writing and referencing throughout the module  Teaching and learning will be placed within the context of social,  ethical, legal, relevant to computing and IT.  Collaboration and communication will be utilised through team teaching, group discussions and simulations, project-based learning activities, report writing and blended and virtual learning platforms.  At key points learners will be given key information which they must research, analyse and interpret, then seek out further reading where they must independently broaden their understanding of specific problems and technical principles.  Creative and critical thinking will be encouraged through lecturer mentoring on a weekly basis. |

**Intended learning outcomes at Level 5 (FdSc Cyber Security) are listed below:**

| Learning Outcomes – LEVEL 5 | |
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| 3A. Knowledge and understanding | |
| Learning outcomes: | Learning and teaching strategy/ assessment methods |
| A1 Demonstrate an awareness through practice knowledge of cyber security.  A2 Appreciate the theory and practice of a range of computer networking hardware and network operating systems.  A3 Apply and adopt appropriate practices relating to the professional, economic, social and legal ethical issues involved in cyber security.  A4 Demonstrate design techniques in the modelling and design of computer-based systems for various contexts.  A5 Design a secure networking infrastructure deployment solution. | Lectures will provide an overview of core module material, using examples and case studies as appropriate. Students will be encouraged to further investigate aspects of lectures in preparation for Tutorials. Tutorials will provide an opportunity for specific problem solving. Short, weekly exercises, using a variety of mediums will be used to provide frequent, informal formative feedback.  Tutorials will provide opportunities for students to present using a range of formats: written, oral or electronic. Students will be encouraged to work as individuals or in groups during practical exercises which will enable students to apply their knowledge of basic concepts. Students will be encouraged to research given problems and provide feedback on their findings. Students will be directed and guided to read selected papers and short articles by the Module Coordinators as appropriate.  Team Teaching: Team teaching of optional modules where a campus does not have enough students to teach independently. In this instance students will be taught from one campus using video streaming and supported by parallel teaching tutorials in each campus to develop skills.  Independent Study Supported by VLE/Course Notes: Students are invited to take part in independent learning through investigating written material or using the internet in the college Learning Resource Centre. In addition, collaborative learning and consulting with peers is encouraged as this leads to the exchange of ideas and effective problem solving. Teaching materials are developed and provided in electronic form for the course. South West College facilitates all students with remote login access to the college VLE to access all electronic materials and to take part in online discussions\forums and email.  Textbooks\eBooks: A core resource to supplement and support curriculum. Allows extension to learning outside and inside the classroom to assist, give direction, facilitate research and independence to develop confidence of learning.  Flipped Learning: A pedagogical approach where learning is inverted so students are introduced to the learning material before the scheduled class. This method may incorporate many strategies (individual or group), for example, discussion with peers and problem solving activities to allow students to deepen their understanding of the topic.  Assessment materials may be marked using tutor or computer marked assignments (multiple choice, short answer, essay), interactive computer marked assignments, labs, formal examinations or progress tests or reports. |

| 3B. Cognitive skills | |
| --- | --- |
| Learning outcomes: | Learning and teaching strategy/ assessment methods |
| B1 Specify, design and implement computing security solutions to professionally agreed standards.  B2 Demonstrate computational thinking relating to everyday life scenarios.  B3 Analyse, evaluate and test a computer-based system solution and justify how the solution meets the defined criteria.  B4 Analyse and adopt professional practices relating to professional, legal, social, moral and ethical issues to cyber security. | Digital Literacy: Digital Literacy will be evident throughout modules through online reading materials, multimedia presentations, use of online resources and the internet for research, custom made learning materials such as videos\quizzes etc., bespoke software tutorials, use of communication tools, electronic plagiarism software and various types of content creation.  Lectures: Lectures are designed to engage the learner’s interest in a topic and provide a framework on which students can build their knowledge and understanding. Lectures provide summarised information from a range of sources, updating students with new developments and current issues.  Practicals: Practical work reinforces the material learned in training/lab /tutorials. This takes place in the IT rooms and hardware lab and aims to allow students to take control of specialised resources and equipment. Working under guidance and within the constraints of training, risk assessment and health, safety and well-being, students have ownership over the intended outcome making it more motivating and enjoyable. Experience learning where students are problem solving through solution finding and implementation while developing effective communication and use of terminology.  Project Based Learning: Student centered pedagogy, where students will learn through the experience of solving an industry defined problem. This approach involves students working on a project over a period of time through engagement of a real world problem to find a solution to a complex problem. This approach enables students to develop their critical thinking, creativity and communication skills. PBL is used to create a contagious energy among students to develop a deeper understanding of the subject and quest for further knowledge and skills through active learning. |

| 3C. Practical and professional skills | |
| --- | --- |
| Learning outcomes: | Learning and teaching strategy/ assessment methods |
| C1 Specify, design and construct secure and usable computer-based systems.  C2 Apply best practice techniques and tools for the development and documentation of cyber security systems.  C3 Communicate technical information to a range of diverse audiences.  C4 Employ health and safety to adopt best professional practice when using hardware and software solutions.  C5 Develop effective solutions to practical problems as an individual or as a member of a team. | Simulations: Simulation through experiential learning, where the learning material is presented with an instructional scenario through a game or role play where students work through tasks to solve problems.  Case Studies and Study Guides: Training by solving specific cases based on defined industry scenarios. This will allow the analysis of the problem to provide a solution and a justification of a solution.  Podcasts\Vodcasts: Subject related audio and video files created to support learning. Casts allow a student to take control of their own learning to learn more from supportive materials and to allow for flipping the classroom activities where a student becomes more engaged and ready for classroom learning. Resources can be used at times and from locations that suit the learner.  Practical Reports: These are used to assess students’ skills of technical writing of lab work. Students are provided with full and timely feedback.  Blended Learning Materials: Blended learning is integrated into modules where appropriate and all module materials are stored on the college VLE. This is a combination of face to face lectures, TEL tools, and practicals. The programme, in common with all programmes of Ulster University, aims to provide an inclusive and accessible teaching, learning and assessment environment for all participants. Blending learning materials have been created to deliver hardware and database techniques and the mechanisms are in place for students to log in remotely from home to configure and practice hardware skills and knowledge.  Virtual Learning and Asynchronous VC Delivery: all students will be directed to virtual resources to enhance and support their learning experience and to offer additional learning opportunities. VC Delivery will be used to deliver teaching and learning to all campuses with local facilitators.  Individual Work: Students producing independent work where students get interested in a variety of information sources and practical experience through engagement and stimulation of learning. Students learn as an individual to study and develop independent thinking, problem solving, analysing, and evaluation and self-reflection skills.  Group Work: Collaborative group based work will be assessed by work submitted individually by each candidate, and may also include an element of assessment by tutor observation of each candidate’s contribution to the team and effectiveness as a team member while the team is working on the project. Action learning, where students develop their own way to a comprehensive solution, allows students to experience familiarity of working in a group through allocating roles, researching and presenting opinion and analysing and evaluating solutions. Embedding peer assessment and feedback through reflection. |

| 3D. Key/transferable skills | |
| --- | --- |
| Learning outcomes: | Learning and teaching strategy/ assessment methods |
| D1 Learn in familiar and unfamiliar settings to develop a range of skills to become effective to oneself, their employer and the wider economy.  D2 Communicate effectively using different communication strategies to diverse audiences.  D3 Manage one’s own learning and professional development through appreciating the need for lifelong learning.  D4 Apply numeracy and understanding to different defined mathematical scenarios. | Workshops with Academic Mentors will support development of skills in research, academic writing and referencing throughout the module  Teaching and learning will be placed within the context of social,  ethical, legal, relevant to computing and IT.  Collaboration and communication will be utilised through team teaching, group discussions and simulations, project-based learning activities, report writing and blended and virtual learning platforms.  At key points, learners will be given key information which they must research, analyse and interpret, then seek out further reading where they must independently broaden their understanding of specific problems and technical principles.  Creative and critical thinking will be encouraged through lecturer mentoring on a weekly basis. |

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| **4. Distinctive features of the programme structure**   * **Where applicable, this section provides details on distinctive features such as:** * where in the structure above a professional/placement year fits in and how it may affect progression * any restrictions regarding the availability of elective modules * where in the programme structure students must make a choice of pathway/route * **Additional considerations for apprenticeships:** * how the delivery of the academic award fits in with the wider apprenticeship * the integration of the ‘on the job’ and ‘off the job’ training * how the academic award fits within the assessment of the apprenticeship |
| * The programme will allow students to progress from a variety of qualifications (including A Level, Level 3 BTEC, NVQ Level 4 Qualifications, Cert HE, HNC) to the FdSc Cyber Security and progress afterwards, if entry requirements met, to the BSc (Hons) in Computing Science. * The designed programme has three exit points, Certificate of Higher Education, Higher Diploma or FdSc Cyber Security. * The programme actively engages with employers via the Industry Advisory Board who advise the team on the graduate qualities and skills required to ensure curriculum is suitable. Employers also offer work based learning opportunities and assessment and PBL opportunities based on real world scenarios. * Enhanced learning opportunities as module content is based around professional industry qualification desired by employers. Including CISCO, Microsoft, CompTia. * Students will be able to access and use SWC Innovation Centres to aid and enhance learning through PBL. * Teaching team with extensive teaching experience, academic and professional qualifications who are committed to undertaking staff development and who constantly reflect and develop their own practice. |

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| 5. Support for students and their learning.  *(For apprenticeships this should include details of how student learning is supported in the work place)* |
| **Induction**. A series of phased induction sessions provide timely advice on the key aspects of the course and services provided by the College. Induction is then delivered by members of staff from the Course Team and the College Student Support staff (Student Services\Finance\Careers\Learning Resource Centre). Induction includes: Introduction to the teaching team, tour of the campus, access and contact information, Student Services, Finance, Introduction to the Course, Course Outline, Structure and Content. Higher Education Handbook provides a guide to life as a student within the College. It welcomes students to the College, Course Handbook, Module Handbooks, Academic, how students will be assessed, feedback, Policies: Plagiarism Policy, Internal Moderation Policy, Academic Appeals Policy, Complaints Procedure, Examination Process and first sits/ Resits, Extenuating Circumstances, HEAR, class representatives, outline of the VLE, Library and Learning Resource Centre, progression routes. Students will be inducted to Canvas and module tutors will induct students to each module.  **Course Handbook.** Provides all the necessary information about the course. It includes information on the teaching staff, outline information on modules studied and the course calendar. It contains the course specification and the current course. Printed versions distributed to each student and also available electronically from the VLE.  **Module Handbooks.** Describe the content of each module delivered in a particular year. These provide students with the module teaching and assessment schedules and a list of the recommended texts. Printed versions distributed to each student and also available electronically from the VLE.  **Blended Learning Materials:** Blended learning is integrated into modules where appropriate and all module materials are stored on the college VLE. This is a combination of face to face lectures, TEL tools, and practicals. The use of blended learning materials aims to provide an inclusive and accessible teaching, learning and assessment environment for all participants. Blending learning materials have been created to deliver hardware and database techniques and the mechanisms are in place for students to log in remotely from home to configure and practise hardware skills and knowledge.  **Virtual Learning:** all students will be directed to virtual resources to enhance and support their learning experience and to offer additional learning opportunities.  **Course Directors.** The Course Director has responsibility for the overall management of their course including: Liaising with Quality and Performance Officer to agree and set targets for client perception (completion/satisfaction), attainment, retention and attendance; Examination/qualification registration and assessment procedures; Monitoring action minutes from previous meetings; Reporting impact of previous actions; Recruitment against target; Liaising with Personal Tutors regarding student attendance. progress, attainment; Reporting on overall student attendance; Reporting on retention/early leavers; Reporting on progression and attainment; Liaising with external examiners; Monitoring and evaluating, moderation, recording and actioning reports; Managing their team, ensuring attendance at meetings; Supervision of student representative election; Maintaining Course File; Organising and chairing regular quality team meetings (at least one every seven weeks including two course committee meetings per year); Recording minutes of meetings; Completion and Supervising Course Review; Provide a student induction programme, within an agreed higher education cross-college framework, which provides consistent and comprehensive induction procedures, including: Contributing to open events and results days; Ensuring course leaflets available (computerised and hard copy); Ensuring sufficient members of team available; Representatives / Awarding Body Representatives as required by their systems and procedures. Producing Higher Education Student Course Handbook(s).  **Module Tutors:** Staff involved in the programme include Module Tutors who have written modules and the associated learning and assessment materials. Module tutors are experienced staff who offer studies advice to assist learners in their personal, module and career development. All academic staff are expected to take responsibility for quality and the implementation of quality assurance procedures and improvement plans, in relation to courses that they are involved in. Specific responsibilities include: Participation in course/curriculum quality team meetings; Implementation of subject/module evaluations; Regular monitoring of student attendance, progress and attainment; Module tutors should ensure that the feedback provided to students is appropriate, detailed and is linked to the learning outcomes being assessed and the assessment criteria being used. It is crucial that the level of feedback provided to the student indicates how their performance can be improved.  **Learning, Teaching and Assessment Advisors (LTAs).** Support staff in the delivery and development of learning materials to ensure contemporary assessment and teaching strategies are used to enhance the students’ learning experience.  **Careers:** A centralised Careers Service is available through the student support unit to help students determine their future career and support their applications for employment. Students will discuss career options during meetings with their class tutor. This provides advice and direction to students and enables them to make meaningful use of the careers service during the year.  **Counselling.** A centralised Counselling Service is available to students who are experiencing problems with aspects of their lives. If these problems are affecting their studies or academic progress the course tutor and appropriate members of the course team co-operate to provide recommended help and advice to the student concerned. This service is provided by the college student services on each campus in the Student Services Office.  **Pastoral care.** The FdSc in Cyber Security programme is based on a personal tutor system. Each learner on the course is assigned to a personal tutor who is an experienced member of the course team and takes a dedicated interest in one of the year groups on a course and acts as an intermediary between the year group and the course director. With larger year groups there may be more than one personal tutor.  **Research/Study Skills.** All students will be required to undertake an initial induction module that will outline research methods and study skills. Students will also develop research skills and study skills through the undertaking of a number of modules. This will be backed up with further sessions with the HE Support Team if required.  **Higher Education Support Team:** The Higher Education Academic Support service offers various types of academic support to Higher Education students across all campuses. This may take the form of scheduled workshops or specialised one-to-one support.  **Boot Camps:** Boot Camps will be offered over the summer months to support modules that align to profession qualifications such as CompTia, MTA etc. to facilitate students wishing to sit exams to gain these qualifications. |

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| 6. Criteria for admission  *(For apprenticeships this should include details of how the criteria will be used with employers who will be recruiting apprentices.)* |
| **Entry point - Year 1**:  **Students who wish to gain admission at year one of the Foundation Degree.**  All applications will be individually considered. Successful applicants must have normally studied at level 3 or above for a minimum of two years. Applicants should possess a minimum of five GCSEs grades A, B, C that should include English and Maths or other equivalent qualifications in addition to one of the following:   * successful completion of an advanced diploma; * successful completion of a BTEC Extended Diploma/Diploma/Sub Diploma/Certificate in a related subject; * successful completion of A Level study; * equivalent qualifications such as Scottish Certificate of Education or International Baccalaureate, a European Baccalaureate, Irish Leaving Certificate with grade C or above in four subjects at higher level; * qualifications deemed equivalent to the above; * UCAS tariff score of **48** or above is desired for entry to this programme. Entry can also be made from national certificate/diploma, HE access, NVQs or by the College’s policy relating to APEL.   **Entry point - Year 2:**  **Students who wish to gain admission at year two of the Foundatipon Degree**  Learners will require a Certificate in Higher Education or a Higher National Certificate (or equivalent) in a **Computing** related subject, qualifications deemed equivalent or by the college’s policy relating to APEL. Students must also hold GCSE English and Maths at grade C or above (Level 2 Literacy and Numeracy qualifications are also accepted).  **International Students**  An international student is defined as a student who requires a Tier 4 (student) visa in order to study in the UK. Such applicants may or may not be living overseas at the time of making their course application. International applicants should apply via the usual route for full-time undergraduates, All international students must meet the college general entry requirements and academic qualifications requirements of the course. In addition, International students must have the required level of English Language IELTS academic 6.0.  All international qualifications will be checked for academic comparability using the online UKNaric qualifications database. The Admissions team has access to UKNaric training materials and guidance on the evaluation and verification of international qualifications.  **Students may gain admission through Recognised Prior Learning.**  RPL is the process by which the college can identify, assess and certify an applicant’s past educational and vocational achievements. Applicants wishing to be considered for APL for a particular programme for the purpose of admission or credit must bring this to the attention of the course director at the application and interview stage. Applicants wishing to be considered for direct entry into a level above four or five would normally only be credited a maximum of 240 credits. Gaining credit at level 6 does not qualify.  APEL is where applicants can gain admission to a programme on the basis of their experiential learning. At the application stage applicants should inform the admissions staff and the relevant course director of their intention to apply for APEL. APEL can only be used for admission purposes and not to gain credit or exemptions.  All applicants will be interviewed to assess their suitability for this programme of study. |

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| 7. Language of study |
| English |

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| 8. Information about non-OU standard assessment regulations (including PSRB requirements) |
| N/A |

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| 9. For apprenticeships in England End Point Assessment (EPA).  *(Summary of the approved assessment plan and how the academic award fits within this and the EPA)* |
| N/A |

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| 10. Methods for evaluating and improving the quality and standards of teaching and learning. |
| All HE programmes at SWC are subject to the Quality Management and Enhancement processes. In line with FHEQ Benchmark Statements (2014) the following processes are in place:   * Internal verification/moderation, cross marking and external examining processes used to ensure validity and reliability of assessment process. * The Course Committee considers learner feedback from each module. * Staff/Student Consultative Committee meetings provide the means of highlighting any difficulties, relating to the course, experienced by the cohort. * Annual Course Review procedures consider quantitative and qualitative feedback and formulate action plans. * Learners complete a module evaluation at the end of each module, each semester/year and at the end of the programme. * Staff appraisal is carried out on a two-year cycle with attention given to the development needs of the individual staff member. * The College will annually complete the OU course review & evaluation documentation if applicable. * The College has a Staff Development Programme, which facilitates specific training/development for staff. * All staff are encouraged to complete Information & Learning Technology qualifications. * Views of external examiners are considered and SWC/OU reporting mechanisms are/will be followed. * Informal views and formal written feedback is considered from Employers via the Industrial Advisory Board. * Learner performance data and career progression is annually monitored. * Peer observation and assessment has been introduced to assessment matrix.   All team members have to attend programme specific team meetings during the year, all with pre-set agendas, and the Course Directors have to attend Higher Education Committee Meetings, which consider quality management. All new staff to the programme are supplied with a dedicated mentor and a full induction, with extra supervision over their first year in many forms such as Teaching & Learning Mentors and additional peer observations. |

Annexe 1: Curriculum map

Annexe 2: Curriculum mapping against the apprenticeship standard or framework (delete if not required.)

Annexe 3: Notes on completing the OU programme specification template

Annexe 1 - Curriculum map Cert HE

This table indicates which study units assume responsibility for delivering (shaded) and assessing () particular programme learning outcomes.

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|  |  | **Programme outcomes** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Level** | **Study module/unit** | **A1** | **A2** | **A3** | **A4** | **A5** |  |  |  | **B1** | **B2** | **B3** | **B4** |  |  |  |  | **C1** | **C2** | **C3** | **C4** | **C5** |  |  |  | **D1** | **D2** | **D3** | **D4** |  |  |  |
| 4 | Networking Fundamentals |  |  |  |  | √ |  |  |  | √ |  | √ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Programming Essentials |  |  |  | √ |  |  |  |  | √ |  | √ |  |  |  |  |  | √ |  |  |  | √ |  |  |  |  |  |  |  |  |  |  |
| Network Data Security |  | √ | √ |  |  |  |  |  | √ |  | √ | √ |  |  |  |  |  | √ | √ |  |  |  |  |  | √ | √ | √ |  |  |  |  |
| Cyber Security Fundamentals | √ | √ |  |  |  |  |  |  |  | √ |  |  |  |  |  |  |  |  | √ |  |  |  |  |  | √ |  |  |  |  |  |  |
| Computing Mathematics |  |  |  | √ |  |  |  |  |  | √ |  |  |  |  |  |  |  |  |  | √ |  |  |  |  |  |  |  | √ |  |  |  |
| Ethical Hacking | √ |  | √ |  |  |  |  |  |  |  |  | √ |  |  |  |  |  | √ |  |  |  |  |  |  |  | √ |  |  |  |  |  |

Annexe 1 - Curriculum map FdSc Cyber Security

This table indicates which study units assume responsibility for delivering (shaded) and assessing () particular programme learning outcomes.

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|  |  | **Programme outcomes** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Level** | **Study module/unit** | **A1** | **A2** | **A3** | **A4** | **A5** |  |  |  | **B1** | **B2** | **B3** | **B4** |  |  |  |  | **C1** | **C2** | **C3** | **C4** | **C5** |  |  |  | **D1** | **D2** | **D3** | **D4** |  |  |  |
| 4 | Networking Fundamentals | √ | √ |  |  | √ |  |  |  |  |  | √ |  |  |  |  |  |  |  |  |  | √ |  |  |  |  |  |  |  |  |  |  |
| Programming Essentials |  |  |  | √ |  |  |  |  |  |  | √ |  |  |  |  |  | √ |  |  |  | √ |  |  |  |  |  |  |  |  |  |  |
| Network Data Security | √ |  | √ |  |  |  |  |  | √ |  | √ |  |  |  |  |  |  |  |  |  |  |  |  |  | √ | √ |  |  |  |  |  |
| Cyber Security Fundamentals | √ | √ | √ |  |  |  |  |  |  | √ |  | √ |  |  |  |  |  |  | √ |  |  |  |  |  | √ |  |  |  |  |  |  |
| Computing Mathematics |  |  |  | √ |  |  |  |  |  | √ |  |  |  |  |  |  |  |  |  |  | √ |  |  |  |  |  |  | √ |  |  |  |
| Ethical Hacking | √ | √ | √ |  |  |  |  |  |  |  | √ | √ |  |  |  |  |  | √ |  | √ |  |  |  |  |  | √ |  |  |  |  |  |

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|  |  | **Programme outcomes** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **Level** | **Study module/unit** | **A1** | **A2** | **A3** | **A4** | **A5** |  |  |  | **B1** | **B2** | **B3** | **B4** |  |  |  |  | **C1** | **C2** | **C3** | **C4** | **C5** |  |  |  | **D1** | **D2** | **D3** | **D4** |  |  |  |
| 5 | Mobile Devices & Cloud Security |  |  |  |  | √ |  |  |  | √ |  |  |  |  |  |  |  |  |  |  |  | √ |  |  |  | √ | √ |  |  |  |  |  |
| Responsive Incident Management | √ |  | √ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | √ |  |  |  |  |  |  |  |  |  |  |  |
| Server Management and Security |  |  |  | √ | √ |  |  |  |  |  | √ |  |  |  |  |  |  | √ |  |  | √ |  |  |  |  |  | √ |  |  |  |  |
| Cyber Security Implementation | √ |  |  |  |  |  |  |  | √ |  |  | √ |  |  |  |  |  | √ | √ |  | √ |  |  |  |  |  | √ |  |  |  |  |
| Work Based Learning | √ | √ | √ |  |  |  |  |  |  | √ |  |  |  |  |  |  |  | √ |  | √ |  |  |  |  | √ |  |  | √ |  |  |  |
| Project Management |  |  | √ |  |  |  |  |  |  | √ | √ |  |  |  |  |  | √ |  | √ |  |  |  |  |  |  | √ |  | √ |  |  |  |

**Annexe 2: Notes on completing programme specification templates**

1 **-** This programme specification should be mapped against the learning outcomes detailed in module specifications.

2 – The expectations regarding student achievement and attributes described by the learning outcome in section 3 must be appropriate to the level of the award within the **QAA frameworks for HE qualifications**: <http://www.qaa.ac.uk/AssuringStandardsAndQuality/Pages/default.aspx>

3 – Learning outcomes mustalso reflect the detailed statements of graduate attributes set out in **QAA subject benchmark statements** that are relevant to the programme/award: <http://www.qaa.ac.uk/AssuringStandardsAndQuality/subject-guidance/Pages/Subject-benchmark-statements.aspx>

4 – In section 3, the learning and teaching methods deployed should enable the achievement of the full range of intended learning outcomes. Similarly, the choice of assessment methods in section 3 should enable students to demonstrate the achievement of related learning outcomes. Overall, assessment should cover the full range of learning outcomes.

5 - Where the programme contains validated **exit awards** (e.g. CertHE, DipHE, PGDip), learning outcomes must be clearly specified for each award.

6 - For programmes with distinctive study **routes or pathways** the specific rationale and learning outcomes for each route must be provided.

7 – Validated programmes delivered in **languages other than English** must have programme specifications both in English and the language of delivery.