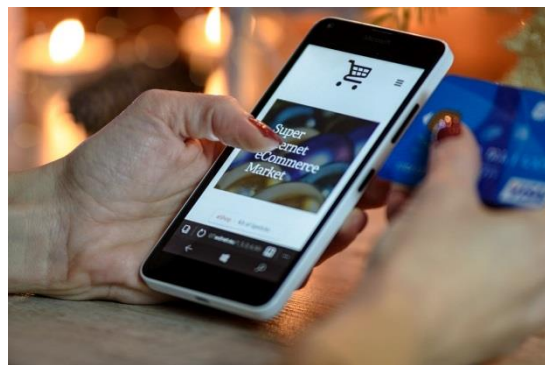


| Middlesbrough College

| B.Sc. (Honours) Computing Top-Up

| Programme Specifications

May 2018



Programme Specification

(Notes on how to complete this template are provide in Annexe 2)

1. Overview/ factual information

Programme/award title(s)	B.Sc. (Honours) Computing Top-Up
Teaching Institution	Middlesbrough College
Awarding Institution	The Open University (OU)
Date of first OU validation	N.A.
Date of latest OU (re)validation	N.A.
Next revalidation	N.A.
Credit points for the award	120
UCAS Code	N.A.
Programme start date	September 2018
Underpinning QAA subject benchmark(s)	Computing (2016)
Other external and internal reference points used to inform programme outcomes	SEEC Credit Level Descriptors Framework for Higher Education Qualifications QAA Quality Code
Professional/statutory recognition	None
Mode(s) of Study (PT, FT, DL, Mix of DL & Face-to-Face)	FT/ PT Face-to Face
Duration of the programme for each mode of study	FT/PT: 1 years
Dual accreditation (if applicable)	N.A.
Date of production/revision of this specification	May 2018

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 overall aims of the programme are to:

- harness students' enthusiasm for the field of computing inspiring further skills development;
- involve students in an intellectually stimulating and satisfying experience of learning and studying computing;
- provide students with access to current concept and trends within computing;
- develop students' ability to understand relationships between networking, security, data science and programming concepts;
- develop practical and professional skills expected of employers and industry within the various modules covered in this programme;
- provide a sector-relevant syllabus for practitioners, or for those aiming for employment in the computing industry, in areas of networking, security, programming and the web industry;
- provide students with the skills and experience to manage large project development;
- develop students' effectiveness at written and oral communication, as well as being able to read and produce technical documentations and present results to an audience;
- develop an understanding of the legal, social, ethical and professional issues involved in the use of computer technologies with respect to good professional practice;
- produce graduates that are proficient in computer languages, networking and security;
- develop students to become fully independent learners.

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 Programme Team developed a Foundation Degree in Computing conterminously with this Top Up award.

2.3 For Foundation Degrees, please list where the 60-credit work-related learning takes place

N.A.

2.4 List of all exit awards

BSc Computing [80 Credits]
BSc (Honours) Computing [120 Credits]

Compulsory modules	Credit points	Optional modules	Is module compensatable ?	Semester runs in
Application Development	20		Y	Year Long [1-26]
Ethical Hacking	20		Y	Year Long [1-26]
E-Commerce Platforms	20		Y	Year Long [1-26]
Data Science	20		Y	Year Long [1-26]
Computing Project	40		N	Year Long [1-30] FT Year Long [1-40] PT

Intended learning outcomes at Level 6 are listed below:

<u>Learning Outcomes – LEVEL 6</u>	
3A. Knowledge and understanding	
Learning outcomes:	Learning and teaching strategy/ assessment methods
<p>A1: Demonstrate a comprehensive and detailed knowledge of advanced technical concepts of various computing disciplines.</p> <p>A2: Demonstrate a comprehensive and detailed knowledge of techniques and processes using appropriate hardware and software tools to meet programming, data analysis, decision making and technical scenario goals.</p>	<p>A1: Lectures, demonstrations, practical lab sessions and tutorials are used to demonstrate a range of concepts and techniques used across various aspects of computing. Sessions offer a mixture of lectures and written/practical exercises and in order to develop comprehensive advanced knowledge and skills tested in summative assessments which include written and practical elements. Formative assessments are provided through in-session exercises, scenarios and practical lab sessions.</p> <p>A2: Lectures, demonstrations, practical lab sessions and tutorials are used to demonstrate advanced techniques in application development, advanced use of hardware and software tools for penetration testing and data analysis. Sessions offer a mixture of theory and facilitated practice and provide ample opportunity for formative feedback and feedback on summative assessments.</p>

<u>Learning Outcomes – LEVEL 6</u>	
3A. Knowledge and understanding	
<p>A3: Apply research/enquiry-based approaches to technical and/or creative goals and demonstrate an awareness of current issues/creative context and developing technologies.</p> <p>A4: Plan, undertake and evaluate a negotiated, self-managed project in computing and demonstrate a comprehensive and detailed knowledge of the discipline investigated.</p>	<p>A3: Following several group seminars in which students share their ideas for project topics, one-to-one tutorial sessions are used to help students complete their Project Briefs by Week 3.</p> <p>A4: Once a Project Supervisor signs off the Project Brief, fortnightly tutorials are used to help students to evaluate their progress and find solutions to challenging issues. Students must provide Project Supervisor access to their blog. In each tutorial, student blogs are viewed, and targets are set to be assessed at the next tutorial. Templates for Project Briefs are provided.</p>
3B. Cognitive skills	
Learning outcomes:	Learning and teaching strategy/ assessment methods
<p>B1: Synthesise, appraise and evaluate key issues in data science and programming and ethical hacking methods technically to realise a specific goal.</p> <p>B2: Demonstrate the acquisition, application and evaluation of new knowledge and understanding in the creation of a major project.</p>	<p>B1: Lectures, demonstrations and practical task-based sessions in computer labs explore various attack vectors, tools and techniques. Session exercises provide students with opportunities to appraise and evaluate methodologies, concepts, tools and techniques used in penetration testing. Sessions provide opportunity for one-to-one and group demonstrations, formative feedback and tutorial support.</p> <p>B2: Students are supported continually to ‘chunk’ their practical work into tasks, and to appraise and evaluate their practical work at each stage and capture this activity in an online blog which will be invaluable in writing the Final Report (Assignment 1). Students are also required effectively to summarise their Project report and provide a practical demonstration of any practical outcomes in a Viva Voce (Assignment 2).</p>

3B. Cognitive skills	
B3: Conduct and demonstrate the ability to research and analyse an e-commerce/application platform in order to design, develop and manage the construction of an ecommerce web presence or application.	B3: Computer Labs and academic support sessions provide opportunities for students independently to test and compare a number of ecommerce platforms. Students are then required to choose a preferred platform using a wide range of criteria from ease of use, through functionality to popularity in the industry. Students must also capture detailed justifications for their choice, for which they should find corroborative evidence which is presented in the form of a report in a summative assignment. use the platform to create a functional prototype which forms a second summative assignment. Computer Lab and academic support sessions provide many opportunities for both formal and informal tutorials and <i>ad hoc</i> , formative feedback.
3C. Practical and professional skills	
Learning outcomes:	Learning and teaching strategy/ assessment methods
C1: Act autonomously to work with a range of concepts, methodologies and techniques.	C1: Computer Lab-based practical sessions provide students with the opportunity to edit and programme a range of solutions autonomously. Several sessions are used to provide opportunities to compete practical work and associated written work. Some sessions are used for one-to-one feedback relating to the first assignment. Summative assessment is via a question paper in which some questions require students to undertake practical work in the computer labs.
C2: Devise and use a logical test plan for the development of a software-based solution.	C2: Computer Lab-based practical sessions provide students with the opportunity to develop and plan testing autonomously. Several sessions are used to provide opportunities to compete practical work associated assignments. Some sessions are used for one-to-one feedback relating to the first assignment. Summative assessment is via a question paper

3C. Practical and professional skills

C3: Determine and justify the appropriate strategy for a given problem based around a real-life case study in order to demonstrate solid problem-solving skills.

C4: Recognise and adopt professional/ethical approaches to computer technologies and research.

in which some questions require students to undertake practical work in the computer labs.

C3: Computing Lab-based Lectures - which include written, diagramming, group work and individual work. Case studies from industry shall be used and explored to gain understanding on the possible strategies and the appropriate use of them. Sessions provide ample opportunity for ongoing one-to-one demonstrations, formative feedback and tutorial support. Some sessions are used for one-to-one feedback relating to the first assignment. Summative assessment is a written report

C4: Computing Lab-based lectures - which include written, diagramming, group work and individual work – are used to explore case studies from industry. Students use case studies to develop an understanding on the possible strategies including any potential ethical dilemmas. Sessions provide ample opportunity for ongoing one-to-one demonstrations, formative feedback and tutorial support. Some sessions are used for one-to-one feedback relating to the first assignment. Summative assessment is a written report.

3D. Key/transferable skills

Learning outcomes:	Learning and teaching strategy/ assessment methods
<p>D1: Produce professional quality presentation/documentation and use a range of methods to research, prepare, deliver, and evaluate a documentation/presentation to peers and, subject experts/employers.</p> <p>D2: Select and utilise a range of specialist hardware and or software, where appropriate to an end goal.</p> <p>D3: Reflect systematically on performance to further develop learning.</p>	<p>D1: Lab-based lectures, demonstrations, group, seminars and one-to-one tutorials help students research and communicate complex issues clearly to specialist and non-specialist audiences. Students are encouraged to rehearse their presentations with the peers and to utilise the peer feedback they receive. Students are also encouraged to produce professional quality, effective documentation throughout. Feedback on draft reports in formal tutorials will also be provided.</p> <p>D2: Students are expected to develop their extant specialist hardware and or software skills and to capture evidence of this skills development in their blogs which will inform their summative assignments, in the form of a final report and presentation.</p> <p>D3: Students reflect and evaluate on both their learning and process of learning in the context of partially or fully independent study.</p>

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

4.1 Rationale

As a vocational foundation degree, the programme focuses upon increasing students' employability through a focus on the skills required across the computing industry focussing on Cyber Security, Networking/Network Security, Programming/Web Technologies and Data Science. While the local University offers a number of BA/BSc and MA/MSc programmes related to Computing, a Foundation Degree (with bespoke top-up) award is unique in the region.

4.2 Programme Structure

A significant feature of the programme structure is the duration of all modules – all are delivered in year-long mode. There are many reasons for delivering modules over the academic year rather than completing in a single semester. Firstly, most modules involve the use of industry standard hardware, and/or software development tools. Students need to become proficient in their use and a year-long module delivery provides this opportunity.

More generally, year-long modules help to maintain students' focus upon learning and teaching and less upon assessment especially in the first half of the academic year. A year-long delivery model is also better suited to students requiring more support and guidance and is helpful in developing independent learners.

4.3 Virtual Desktop Infrastructure

Another significant feature of the programme is that all learners are offered access to all software products used on the programme through remote access to the VDI (Virtual Desktop Infrastructure) free of charge as part of the programme.

4.4 Part-Time Mode

Part-time students can opt to study the top up over a 1-year period utilising an extended academic year. In response to local market demand, the College offers part-time modes of delivery for some of its programmes that enable students to complete their studies in a 40-week period. The key features of the part-time mode are:

- Each stage of the programmes starts in September and concludes at the end of July.
- This allows an additional 10 weeks of delivery per academic year when compared to the full-time mode.
- The additional 10-week window is to allow an extended period of time for part-time students to complete the project or work-based element of the programme.
- All part-time students receive formal scheduled teaching sessions (FST) each week that cover all of the taught elements of the programme of study.
- Academic Support (AS) sessions for part-time students are supported via the VLE for a proportion of their learning. The approach to managing this is as follows:
 - each programme of study is allocated hours for FST and AS;
 - AS hours for part-time students are delivered via the VLE;

- students are allocated tasks and activities designed to build on the content delivered in FST sessions;
- part-time students are expected to complete these tasks away from the College;
- a window for completion of the tasks is set to allow students time to refer to tutors/peers as required with a specified response time allocated;
- staff are allocated a time in the week (usually an evening) when they will be available to respond to posted requests for help as well as engage in on-line discussions.

Support for Part-Time Students

To ensure that all part-time students can engage with the delivery model, the following support will be made available:

- Initial support and guidance during induction to ensure that part-time students are able to log-on to the VLE and understand the relevant aspects required to support their engagement in remote AS sessions.
- Information - both on the VLE and in the part-time Student Handbook - to guide students through the process of log-on and use of the various sections.
- Lap-top loans for students that encounter technical difficulties or do not have access to a computer at home.
- Technical help to support students when not at the College.

Help for Staff supporting Part-Time Students

Staff are supported in working with part-time students as follows:

- Staff are allocated time during teaching weeks to manage AS sessions.
- Staff development is provided to ensure staff make best use of the VLE for the delivery of AS sessions.
- Mentor support from the Associate Director HE (Learning and Teaching) is ongoing.

5. Support for students and their learning

5.1 Induction

During Induction Week:

- Students are given two taster sessions from Level 4 modules to give them a feel for the course and to get them into the programme module delivery early on.
- A representative from the Student Union helps to elect Student Representatives.

5.2 Attendance Support

Attendance is monitored closely to ensure that all students are getting the best from the programme. Should a student need to miss a session for any reason, they are required to email the lecturer beforehand. Where a lecturer notes that a student has not attended with no prior warning, the student will be emailed at the end of the session, asking if the student is well and reminding the student that they are required to let lecturers know if they cannot attend.

Where a student misses three consecutive sessions, the Year Tutor will contact the student with an invitation to attend a formal meeting. Where attendance problems persist, the Year Tutor works with the College Student Support Staff who, where necessary, directs students to the relevant confidential support (personal, financial, etc.). Where students are facing difficulties, it is vital to ensure they get the right support and where necessary, make a decision to withdraw or suspend as the timing of any withdrawal/suspension can affect their Student Loan.

5.3 Teaching & Learning, Assessment and Tutorial Support

Teaching and learning methodologies will vary from one module to another but will offer a number of lectures, seminars, group work, practical workshops and research-based learning. To enhance the learner experience all lectures and courses materials will also be made available through the VLE as well as all learners being provided access, from anywhere, to all college software and systems through the VDI. At level 4 it is expected that there will be good level of analysis and limited autonomy. At level 5, learners will be expected to begin showing greater analysis and increased autonomy in preparation for progression to higher level qualifications or employment.

The assessment strategy will also vary from module to module, but all modules will provide a balance of continuing opportunity for formative assessment in varying formats and timely, individual feedback from the onset, concluding in summative opportunities. These will take the form of, but not limited to, case studies, research and analysis, real world scenarios, academic report writing, timed assessments, group/team working, project, independent investigations, presentations and theory to practical lab work.

Student tutorial opportunities are embedded in all modules. Practical computer lab sessions are structured to provide ongoing tutorials from lecturers while students are completing practical work assisted by an instructor/demonstrator or technician. Theory sessions are structured to provide input through demonstration followed by facilitated practical experimentation in which spontaneous tutorials can be held or scheduled for dedicated, timetabled weekly tutorial sessions. Formative and summative feedback tutorials sessions are also designed into each module.

5.4 Encouraging Completion

One of the significant advantages offered by the programme is the amount of time students spend with tutors. The mantra of 'little and often' is repeated from Induction Week onwards from staff in both formative and written, summative feedback. Another oft-repeated comment is that students must let lecturers know as soon as possible if a deadline may be missed so that, where appropriate, a deadline *Extension* form can be completed (where such an extension is warranted.)

5.5 Summer Reassessment Period

Tutorials will be provided for students offered reassessment and the facilities remain available.

5.6 Year Tutors

In addition to standard Year Tutor duties, the Year 1 Tutor will provide sessions relating to the module *Level 5 Project* in May to prepare students for their first full module of Independent Study. The Year 2 Tutor will offer *return to study* sessions for new Year 2 students at which students will be encouraged to reflect on their performance in Year 1 and develop support strategies for Year 2.

5.7 Pastoral Support

The amount of *ad hoc* pastoral support noted above is greatly valued by the students. More challenging are students who don't attend and the effect of non-attendance upon their performance. In recent years, the number of students on level 3 courses in Game Design that declare Asperger's or dyslexia has increased slightly. The Programme Team have all attended Staff Development sessions on relating to both conditions (Attendance at many of these sessions is mandatory.) For students with dyslexia, staff have started to offer dyslexia-friendly versions of their notes and to include a higher-contrast background on notes projected to electronic whiteboards. Students declaring either condition receive a formal assessment after which the Programme Team are advised on the steps they must take.

5.8 Academic Support

The delivery of many modules is based upon individual sessions that consist of two parts – a lecture (which is built around demonstrations and practical exercises) followed by a facilitated session in which students tackle the practical exercises outlined in the first part of the session. This delivery strategy ensures that theory is always applied, that practical skills, knowledge and understanding are regularly checked and that formative feedback is continuous rather than focussed at specific points in the academic year.

In addition to in-session help, students can also make appointments (via email) to get support from:

- Members of the Programme Team - Module leaders, lecturers and instructor/demonstrators.
- The Programme Leader & Year Tutors: The Programme Leader (who has overall responsibility for the programme) is also the Year 1 Tutor. Programme Team members are identified to act as Year 2 tutors. All year tutors hold termly tutorials.

The personal tutoring system is in place to support a student's full engagement with their programme of study and gain as much as possible out of their time at the College. Though the emphasis is on academic support the meetings are also an opportunity to raise pastoral issues which may be having an impact on a student's academic performance. Tutors can offer support and advice and if required direct students to further support services available within the College which they may find have value. In the final year students are encouraged to arrange meetings as and when required.

5.9 Network Storage

Students will be expected to save their production work on the college student drives as this has additional drive space. Students are provided with 30 GB of storage though more is available upon request. Students will also be expected to back up their work on external drives.

5.10 Programme Documentation and Online Learning Support

Students are provided with Programme and Module Handbooks that contain comprehensive information on how their degrees and modules are structured and delivered. These documents are also available to students throughout each academic year (and for the duration of their registration) via a web-based Virtual Learning Environment (VLE). This online resource includes lecture notes and a range of materials based on in-session demonstrations. Students also use this VLE to submit assignments. In addition to this the VLE, the learners are offered access to all software

products used on the programme through remote access to the VDI (Virtual Desktop Infrastructure).

6. Criteria for admission

The most popular (and directly relevant) entry qualifications is the Foundation Degree in Computing (or a closely related field) or a Higher National Diploma. Where applicants apply with qualifications that are not directly relevant, the Programme Team looks for evidence of experience with computing, specifically programming/web development and/or networking/IT Support/Sys Admin and frequently, applicants in this category are able to offer the relevant experience/grades. Applications from students with non-standard entry qualifications are welcome. Admission tutors take into account any alternative qualifications or other experience they may have.

In all cases successful candidates require qualifications in English Language and Mathematics to at least GCSE grade C/4 level or equivalent.

Applications from students with non-standard entry qualifications are welcome. Admission tutors take into account any alternative qualifications or other experience they may have which will be considered under the College RPL process.

7. Language of study

English.

8. Information about non-OU standard assessment regulations (including PSRB requirements)

N.A.

9. Methods for evaluating and improving the quality and standards of teaching and learning.

9.1 College HE Teaching and Learning

The College has recognised the importance of having a distinct approach to HE learning and teaching for over ten years. The first HE specific Learning and Teaching process was introduced in 2009. Subsequent reviews and updates in 2011, 2014, have enhanced the process to reflect the aims of the [UK Professional Standards Framework](#) and prepared the College to meet the expectations of the [Teaching Excellence Framework](#).

Many of the innovations established in the evolution of this process have been subsumed into the current Cross-College Learning and Teaching model for all levels, including a non-graded observation process. The underlying principle throughout, has been around placing the student at the centre of the process to ensure that their learning and attainment of Learning Outcomes drives the process. Underpinning this has been a focus on ensuring that lecturing staff are fully engaged in the process to match outcomes to professional discussion and peer review.

As the College moves into 2017, the approach is being further refined to form part of the Departmental Review process which is being applied across the College. The distinct nature of HE provision however, is still reflected in the approach. A mark of the success of the approaches taken to date are reflected in the [award of the GOLD standard](#) in the recent Year 2 Teaching and Excellence Framework.

9.2 Observation of Teaching and Learning (OTL)

The OTL process for HE provision has been contextualised to reflect the differences between HE and FE. The OTL process for FE courses is based upon the expectations of the Common Inspection Framework, whereas the HE model, is aligned to the expectations of the [UKPSF](#) and the [TEF](#). Central to the process is the student as an independent learner, developing their academic skills as they progress through their academic career.

The model distinguishes between different levels of study and differing abilities of the students. At Level 4, teaching staff take a lead role in the student learning process, but as the students' progress, the balance gradually evolves to involve students as leaders/co-leaders of learning. To facilitate this model, student learning and reflection may not take place at the same time as content delivery, making it difficult for an observer to see the product of the model. To work around this, the OTL process for HE lessons is based on mapping the observation of the session to the scheme of work and planned assessment tasks.

The outcome of the OTL forms the basis of a professional discussion with a Teaching and Learning mentor as well as with members of the HE teaching team, to ensure that good practice is shared across the College. Any trends identified from OTL reports or staff feedback are used to inform relevant CPD activity. The current policy and procedure is nearing the end of a recent review and redevelopment ready for a September 2017 launch.

9.3 Feedback from Students

Another input to the process of evaluating and improving the quality and standards of teaching and learning is feedback from students. Feedback emerges through several routes. The most significant is through the Module Evaluation Questionnaires. In addition to five-point Likert scale questions, students are asked to state 'what worked and what could be improved' regarding any aspect of the module. The results and comments from the Module Evaluation Questionnaires feed into Module Reports. Over the past twelve years this student feedback has been vital in informing the major and minor modifications the programme has undergone. Student feedback is also collected from induction surveys, the Student Reps, the NSS and in both formal and *ad hoc* tutorials.

9.4 Staff Workforce Development

Improving the quality and standards of teaching and learning is also a focus of the internal and external Workforce Development (WFD) sessions. Academic staff attend a range of internal and external staff development events aimed at improving teaching and learning. A significant WFD programme in this regard is the Advanced Practitioner

programme. Two Programme Team members have successfully completed the programme in 2014 (and the refresh in 2016). Advanced Practitioners share good practice around the college through a range of Staff Developments activities.

9.5 Staff New to HE

All staff new to teaching HE at the College are required to hold a relevant degree and a PgCE as part of the terms of their employment. A higher degree is desirable for all staff and for those teaching Level 6, holding a relevant level 7 qualification or the commitment to study for one is essential. Staff new to teaching HE at the College receive initial tailored CPD to help them to make the transition.

9.6 Staff New to Delivering at Level 6

New staff employed for the delivery of Level 6 awards are required to hold a relevant level 7 qualification. Those staff already teaching at the College making the transition to level 6 delivery are provided with funding and support to complete a level 7 qualification at the earliest opportunity.

Programme teams new to Level 6 awards, are provided with advice and guidance from the Higher Education Office (HEO) during the programme development phase to ensure that the teams have an understanding of the difference in expectations at level 6. As well as general information, which is also available via the VLE, teams are required to submit draft submissions for feedback. A process of meetings and regular reviews of the design and content of the new awards ensures that awards are aligned to the FHEQ and expectations of the UK Quality Code for Higher Education. In programme teams where there is no prior expertise amongst the team of delivering at level 6, mentor support is provided by the HEO and experienced staff throughout the first year of delivery.

9.7 Ongoing Subject and Pedagogic Development

All HE teams share resources and good practice via the HE Staff Zone located in the HEO. The area is set up to encourage HE staff from across the College to meet, both formally and informally, to share good practice and discuss ideas and approaches to module and programme design and delivery. All teaching staff are supported by more experienced members of the team who act as mentors. In addition, the Cross-College learning and teaching mentors, made up of advanced practitioners, provide 1:1 support to teams as well as tailored CPD sessions. The College is adding a new post for the start of 2018, to further support the HE team as the College develops a range of new programmes and increases the number of Level 6 awards it offers.

The College has a HE Research and Scholarly Activity procedure which encourages and supports staff to maintain and annually update both pedagogical and subject expertise.

10. Changes made to the programme since last (re)validation

N.A.

Annexe One: Curriculum map

Annexe Two: Notes on completing the OU programme specification template

Annexe One - Curriculum map

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

Level	Study module/unit	Programme outcomes																																
		A1	A2	A3	A4	A5	A6	A7	A8	B1	B2	B3	B4	B5	B6	B7	B8	C1	C2	C3	C4	C5	C6	C7	C8	D1	D2	D3	D4	D5	D6	D7		
6	Application Development	✓	✓							✓		✓						✓	✓							✓	✓							
	Ethical Hacking	✓	✓							✓								✓			✓					✓	✓							
	E-Commerce Platforms	✓			✓							✓						✓	✓	✓						✓	✓							
	Data Science	✓	✓							✓	✓							✓		✓	✓					✓	✓							
	Computing Project	✓		✓							✓	✓						✓	✓		✓					✓	✓	✓						

Annexe Two: 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 must also 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.